

**VERIFICATION REPORT**

**for land at**

**BOORLEY GARDENS, WINCHESTER ROAD**

**HEDGE END, SOUTHAMPTON, SO32 2UA**

**on behalf of**

**BELLWAY HOMES & MILLER HOMES**

|                                                                                                                                                                                                                                                                                                                                   |                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Report:                                                                                                                                                                                                                                                                                                                           | VERIFICATION REPORT                                                             |
| Site:                                                                                                                                                                                                                                                                                                                             | BOORLEY GARDENS, WINCHESTER ROAD, HEDGE END, SOUTHAMPTON, SO32 2UA              |
| Client:                                                                                                                                                                                                                                                                                                                           | BELLWAY HOMES & MILLER HOMES                                                    |
| Date:                                                                                                                                                                                                                                                                                                                             | 29/09/2023                                                                      |
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**AMENDMENT RECORD**

| Revision ref. | Date       | Reasons for amendment | Author's initials | Reviewed by | Authorised by |
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| 1.0           | 29/09/2023 | First issue           | SA                | GR          | KOD           |
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## 1.0 INTRODUCTION

### 1.1 General

Following a desk study and two phases of intrusive investigations undertaken by third parties and two further phases of intrusive investigation by Geo-Environmental Services Limited ('Geo-Environmental') followed by the development of a Remediation Strategy and Verification Plan (RSVP), referenced GE20346/RSVPv4/MAR23, Geo-Environmental was appointed by Jackson Rowe on behalf of Bellway Homes and Miller Homes to prepare a Verification Report. The Verification Report was to compile the relevant information in relation to the residential development at Boorley Gardens, Winchester Road, Hedge End, Southampton, SO32 2UA, herein referred to as 'the site' (see Figure 1). This report relates specifically to the reduced dig undertaken in a specific section of the wider site (also shown in Figure 1). Remediation was not required in other areas of the site.

This report sets out the works undertaken to date to provide independent verification of the risk mitigation measures undertaken to protect the development and end users thereof. This report provides final validation for works undertaken.

### 1.2 Objectives

A desk study and two phases of intrusive investigations undertaken by third parties and two further phases of intrusive investigation undertaken by Geo-Environmental identified the presence of potential hazards and through a risk assessment process a series of pollutant linkages were identified which required action to mitigate or otherwise reduce the risk. The Remediation Strategy and Verification Plan (RSVP) sets out the proposed remedial works to be undertaken on the subject site to support its development for a proposed residential end use.

This Verification Report (VR) presents the details and findings of inspection visits undertaken by Geo-Environmental and/or to compile data provided by the Client in order to demonstrate that the soil risk mitigation measures were implemented as detailed within the RSVP.

### 1.3 Planning Permission

It is understood that outline planning permission was granted at appeal for the site under Application Number O/15/75953 (appeal ref. APP/W1715/W/15/3130073 dated 30<sup>th</sup> November 2016). The following conditions relating to land contamination were attached to the permission:

*Condition 18.*

*No work shall commence on site until the following has been submitted to, and approved in writing by the LPA:*

- a) A Report of Preliminary Investigation comprising a Desk Study, Conceptual Site Model, and Preliminary Risk Assessment documenting previous and existing land uses of the site and adjacent land in accordance with national guidance and as set out in Contaminated Land Report Nos. 11, CLR11, and BS 10175:2011+A1:2013 Investigation of potentially contaminated sites - Code of Practice, and, unless otherwise agreed with the LPA;*
- b) A Report of a site investigation documenting the ground conditions of the site and incorporating chemical and gas analysis identified as appropriate by the Preliminary Investigation and in accordance with BS 10175:2011+A1:2013, and BS 8576:2013 and unless otherwise agreed with the LPA;*
- c) A detailed site specific scheme for remedial works and measures to be undertaken to avoid the risk from contaminants and/or gases when the site is developed and proposals for future maintenance a [sic] and monitoring.*

*Such a scheme shall include nomination of a competent person to oversee the implementation of the works.*

*Condition 19.*

*The development hereby permitted shall not be occupied / brought into use until there has been submitted to the LPA verification by the competent person approved under the provisions of condition 18(c) that any remediation scheme required and approved under the provisions of condition 18(c) has been implemented fully in accordance with the approved details (unless varied with the written permission of the LPA in advance of implementation).*

*Unless agreed in writing with the LPA such verification shall comply with the guidance contained in CLR11 and EA Guidance for the Safe Development of Housing on Land Affected by Contamination - R&D Publication 66: 2008. Typically, such a report would comprise:*

- A description of the site and its background, and summary of relevant site information;*
- A description of the remediation objectives and remedial works carried out;*
- Verification data, including - data (sample locations/analytical results, as built drawings of the implemented scheme, photographs of the remediation works in progress, etc);*
- Certificates demonstrating that imported and / or material left in situ is free from contamination, gas / vapour membranes have been installed correctly.*

*Thereafter the scheme shall be monitored and maintained in accordance with the scheme approved under condition 21(c) [sic].*

It is understood that a Reserved Matters Application has been approved by Eastleigh Borough Council (ref. RM/17/81628, dated 16<sup>th</sup> January 2019) for Phase 1 of the development (equating to 301No. residential dwellings with associated parking, road infrastructure, landscaping, open space, surface water drainage networks, on-site waste water treatment works, provision of additional vehicular parking for Hedge End Railway Station and bus only connection to Shamblehurst Lane North).

It is understood that a Reserved Matters Application (ref. RM/18/84466 dated 9<sup>th</sup> April 2021) has also been approved for Phase 2 of the development (equating to 143 dwellings with associated parking, landscaping, open space and works, including diversion of a drainage ditch).

It is understood that a Reserved Matters Application (ref. RM/19/86658 dated 5<sup>th</sup> April 2022) has also been approved for Phase 3 of the development (equating to development of 236 residential dwellings with associated parking, landscaping and open space).

No conditions relating to land contamination were noted to be attached to these Reserved Matters approvals. However, it should be noted that the lack of planning conditions applied to the development in relation to contamination would not remove the developer's responsibility to deal with contamination identified in line with current guidance, regulations and duty of care.

This Verification Report has been prepared to address Condition 19 of the outline planning permission for the site.

## 2.0 BACKGROUND

This Verification Report has been produced in order to demonstrate that the works required and presented within the Remediation Strategy and Verification Plan (RSVP) have been carried out. The RSVP for the site was developed by Geo-Environmental following several phases of investigation works for the site undertaken by third parties and Geo-Environmental including:

- Desk Study Report, Ref. E-E1589/LJE/CDS, dated November 2014, prepared by Opus International Consultants (UK) Ltd for Gleeson Developments, Miller Homes and Welbeck Strategic Land LLP;
- Geo Environmental Site Investigation Report, Ref. BRD2924-OR1-C, dated 21<sup>st</sup> July 2017, prepared by BRD Environmental for Gleeson Strategic Land and Miller Homes;
- Geo-Environmental Report, Ref. CRM.1668.012.GE.R.001.A, dated January 2021, prepared by Enzygo Geoenvironmental for Bellway Homes;
- Detailed Quantitative Gas Risk Assessment, dated 30<sup>th</sup> June 2022, prepared by Geo-Environmental for Bellway Homes & Miller Homes, Ref. GE20584/DQGRA/JUN22;
- Ground Appraisal Report, dated 9<sup>th</sup> March 2023, prepared by Geo-Environmental for Bellway Homes & Miller Homes, Ref. GE20584/GARv2/MAR23.

Whilst a summary of these reports is presented below, reference should be made to the full reports for further details. The factual correctness of third party information is assumed and no liability is accepted for any errors in such information or subsequent assessment thereof.

### 2.1 Proposed Site Use

It is understood that the site is proposed to be developed for a residential land use with, together with a primary school and open space leisure areas.

### 2.2 Investigation and Assessment

#### Opus (2014)

The report comprised a review of historical mapping and environmental dataset information pertaining to the site, an account of a site walkover and a preliminary risk assessment for the proposed development at the site (stated as up to 680 dwellings, a local centre, a primary school and public open space).

The report identified the underlying geology at the site to comprise Wittering Formation or Earnley Sand in the southern portion of the site. Superficial Alluvium was recorded along the northern site boundary. Reference to the environmental information indicated no radon protection measures were required at the site.

The Wittering Formation and Earnley Sand were classified as Secondary 'A' aquifers. An aquifer status was not reported for the Alluvium. The site was noted to lie outside any Source Protection Zone (SPZ). No groundwater abstractions were recorded within 1km.

The nearest surface water was reportedly a tertiary river running along the northern boundary. The nearest surface water abstraction was recorded c.310m east of the site. The nearest discharge consent was recorded c.45m west and comprised public sewage to a freshwater stream/river. The nearest pollution incident occurred in 1998, c.15m west of the site involving the release of petrol into a storm drain recorded as a minor (Category 3) incident.

No historic or active landfills or waste treatment sites were recorded within 1km of the site. Nine contemporary trade entries were recorded within 100m of the site including general engineers, joinery, road haulage, door manufacturers, macadam laying contractors, gate manufacturers, and pet food and animal feeds.



Historically, the site was reported as predominantly farmland with a railway line on the western boundary throughout the mapping editions reviewed. Park Farm, a complex of farm buildings, was located in the east of the site from the 1960s. Hedge End and Boorley Green became increasingly expanded with predominantly residential developments over the mapped period.

A site walkover was undertaken as part of the desk study. At that time, the site largely comprised grazing pasture for sheep and horses. A number of drainage ditches were noted within the site. A stream was reported on the northern boundary. Park Farm in the east comprised a farmhouse with garden, a milking parlour and various barns utilised for livestock housing and haylage and straw storage. Several of the barns were noted to be roofed and clad with what was potentially asbestos cement. Three old 205 litre storage drums were noted adjacent to a lean-to. An above ground oil tank in a concrete bund was noted in the front garden of the farmhouse. An above ground diesel storage tank with integrated bund was recorded adjacent to one of the farm buildings. No visual or olfactory evidence of hydrocarbon contamination was reportedly observed at either tank location. During the walkover survey, Opus were advised that a horse was buried in one of the paddocks at Park Farm.

The Preliminary Risk Assessment identified the oil and diesel tanks, agrochemicals, manure piles, and asbestos within buildings as potential on-site sources of contamination. The adjacent railway and Braxell Cottage haulage vehicle repair to the east were identified as potential off-site sources. Risk ratings of low to medium were generally assigned to receptors, with a medium risk assigned to future site users in relation to soil contamination, and a medium to high risk assigned in terms of the asbestos containing materials in the farm buildings.

The report recommended a ground investigation including laboratory analysis of soil samples was undertaken.

#### BRD Environmental (2017)

BRD Environmental's intrusive investigation at the site comprised 31No. machine excavated trial pits to depths of up to 3.00m bgl and 15No. windowless sample boreholes to depths of 3.00m to 5.00m bgl. Soakage testing was undertaken in 6No. trial pits. Combined gas and groundwater monitoring boreholes were installed to 4m bgl in 10No. of the boreholes. Ground gas and groundwater monitoring was undertaken on 6No. occasions during August and September 2017.

The investigation reportedly encountered a mantle of Topsoil or Topsoil containing very low proportions of anthropogenic materials (brick and charcoal) overlying clay soils of the Wittering Formation and London Clay Formation. Made Ground to depths of between 0.20m and 0.25m bgl was reported in two locations (WS5 and WS6) within the yard area of Park Farm in the east of the site. During the return monitoring, groundwater was reported at depths ranging between 0.75m to 2.76m bgl.

A human health risk assessment of the results of geochemical laboratory testing undertaken on soil samples obtained during this investigation reported elevated concentrations of PAH compounds (Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(a)pyrene and Dibenzo(a,h)anthracene) in one location (WS6 at 0.20m bgl) and chrysotile asbestos fibres in two locations (WS5 at 0.10m bgl and WS6 at 0.20m bgl). All elevated contaminant concentrations were recorded within the Made Ground soils encountered in the Park Farm yard. Recommendations were made for further investigation in the Park Farm area of the site to assess the extent of contaminated soils followed by a reduced dig and off-site disposal of impacted soils or re-used under hardstanding (if/where deemed to be suitable).

The BRD Environmental report indicated the only source of ground gases to be natural soils with low organic content and identified the risk as negligible. Nevertheless, ground gas monitoring was undertaken in 10No. boreholes across the site on 6No. occasions between August and September 2017. The monitoring reported methane at concentrations between 0.0% and 0.2%, carbon dioxide between 0.5% and 13.1% and oxygen between 5.2% and 20.3%. Flow rates were recorded between <0.0l/hr and 0.5l/hr. Atmospheric pressure was recorded



between 1006mb and 1021mb. Based on the maximum concentrations of carbon dioxide recorded, the report stated the gas regime of the Park Farm area of the site was NHBC Amber 1, for which gas protection measures would be required. The report stated that the area of the site outside Park Farm could be classified Green as elevated carbon dioxide was only recorded in three boreholes (WS3, WS5 and WS6) in or near Park Farm. Recommendations were made for further investigation and gas monitoring in the area of Park Farm to 'delineate' the extent of elevated carbon dioxide concentrations. Zonation of the site in terms of the recorded ground gas concentrations alone is not in line with best practice and a detailed ground gas risk assessment has now been undertaken for the site. It should be noted that the Opus International Consultants (UK), November 2014 desk study report for the site has not been provided to allow a separate review of the potential source of ground gases identified as part of the Phase 1 assessment of the site.

The report stated that, the soil contaminant concentrations recorded at the site were not considered to present any significant risk to groundwater.

#### Enzygo Geoenvironmental (2021)

The report gave an account and interpretation of a supplementary investigation undertaken at the site. The investigation was undertaken in two fields which BRD Environmental were unable to access in 2017 and in the area around Park Farm including additional ground gas monitoring.

The investigation comprised 12No. window sampler boreholes to a maximum depth of up to 5.0m bgl, five of which were in the area surrounding Park Farm. Five boreholes were installed with combined gas and groundwater monitoring standpipes, three of which were in the fields immediately surrounding Park Farm. Ground gas and groundwater monitoring was undertaken on 6No. occasions during January and February 2021. Borehole WS6 from the BRD investigation was also monitored on 4No. occasions.

The investigation recorded Made Ground to between 0.20m to 0.90m bgl in all locations, formed of sandy clay with occasional brick and ash. Clay and sand-based soil of the Wittering Formation were encountered below the Made Ground. Groundwater was recorded at between 2m and 4m bgl during the investigation and between 0.11m and 1.15m bgl during the return monitoring.

Twelve samples of Made Ground were submitted for laboratory testing for a suite of common brownfield contaminants. No elevated contaminants were identified when screening against Tier 1 assessment criteria by Enzygo, but the report referenced the elevated PAH and asbestos reported within the BRD report. The report recommended removal of the impacted Made Ground identified by BRD in the Park Farm area where soft landscaping is proposed.

The Enzygo report initially identified a negligible risk of ground gases at the site. However, ground gas monitoring was undertaken on 6No. occasions over a 1 month period. The monitoring recorded methane at <0.1% throughout, carbon dioxide ranging between 0.9% and 16.9% and oxygen between 5.2% and 20.3%. Flows were recorded between <0.0009l/hr and <0.0172l/hr. Atmospheric pressure ranged between 986mb and 1035mb. Carbon dioxide was noted to be recorded in excess of 5% in WS101, WS103, WS105 and WS6. These were attributed to the potential presence of a former cesspit at Park Farm, although no evidence for such a feature was presented. Recommendations were made for the site to be zoned as Characteristic Situation 1 in areas outside of Park Farm and Characteristic Situation 2 within the area of Park Farm, which would require gas protection measures. Again, zonation of the site in terms of the recorded ground gas concentrations alone is not in line with best practice and a detailed ground gas risk assessment has now been undertaken for the site.

#### Geo-Environmental Ground Appraisal Report and Detailed Quantitative Gas Risk Assessment

Two phases of intrusive investigation were undertaken in the Park Farm area of the site by Geo-Environmental and detailed in the Ground Appraisal Report (GE20584/GARv2/MAR23).



Initially an intrusive investigation comprising 5No. dynamic sampler boreholes was undertaken in May 2022. The investigation was undertaken to support the Detailed Quantitative Gas Risk Assessment for the site but also to undertake a contamination assessment of soils. The boreholes were drilled to 5.00m bgl and installed with ground gas monitoring standpipes. Geochemical testing of soil and groundwater samples was undertaken. Three return ground gas and VOC monitoring visits were undertaken between 26<sup>th</sup> May and 15<sup>th</sup> June 2022.

The initial investigation revealed ground conditions comprising a mantle of Made Ground or Topsoil overlying clay soils of the Wittering Formation with London Clay Formation at depth. Faint or mild diesel odours and possible staining was recorded to 3.50m bgl on WS202 adjacent to the above ground diesel storage tank (also the location of a former steel single skin tank). Groundwater was recorded at between 0.59m and 3.51m bgl during return monitoring.

No elevated soil contaminants in terms of human health were recorded during the May 2022 investigation. Minor hydrocarbon impact was observed in soils in WS202 adjacent to an above ground diesel tank, with some potential hydrocarbon breakdown products identified in soils analysed. A groundwater sample from this location recorded elevated metal compounds and three volatile organic compounds (VOCs). The metal concentrations were considered representative of general background groundwater quality in the area of the site. The VOCs were potentially associated with the natural breakdown and degradation of minor spillages of fuels at the site. Further localised investigation was recommended in the area of the diesel tank following demolition and site clearance.

The Detailed Quantitative Gas Risk Assessment (GE20584/DQGRA/JUN22) concluded that the site should be considered a Characteristic Situation 1 classification, with no requirement for gas protection measures.

A post demolition investigation was undertaken in February 2023 following demolition and removal of the buildings and hardstanding at Park Farm. The investigation comprised 13No. trial pits to a maximum depth of 2.50m bgl targeting areas below former buildings and hardstanding. Four trial pits also targeted the area surrounding the diesel tanks which had been removed.

The 2023 investigation revealed up to 0.55m depth of Made Ground overlying clay soils of the Wittering Formation. Groundwater was recorded at depths between 1.30m and 1.80m bgl. Slight hydrocarbon odours were noted with two trial pits (TP102 and TP103) in the area of the former diesel tank to a maximum 2.30m bgl.

The contamination testing recorded elevated PAH and Lead concentrations within a sample of Made Ground from TP107 in terms of human health. Fragments of asbestos cement were recorded on the site surface in two locations and within Made Ground soil in TP112. A reduced dig exercise to remove the Lead, PAH and asbestos containing Made Ground from within proposed private gardens and areas of soft landscaping was recommended.

Slightly elevated TPH concentrations were recorded within soils sampled in the area of the former diesel tank. However, as the contamination source had been removed and minor soil based impact would be expected to degrade over time, such that no remediation in terms of groundwater protection was considered to be required.

### **2.3 Conceptual Site Model**

The conceptual site model (CSM) developed as part of the risk assessment identified particular hazards, or potential hazards which were considered to require intervention (remediation) to mitigate the risk of harm.

### **2.4 Approach for Remediation, Monitoring and Validation**

Remediation works were proposed to break the pathways of identified sources of contamination to receptors. The aim of the remediation was not necessarily to remove all contamination from the site but to provide

betterment and to reduce the identified risk to an acceptable level with respect to relevant receptors, e.g. human health, the built environment and controlled waters.

The remediation works undertaken comprised a reduced dig in the former Park Farm area of the site, and subsequent off-site disposal of Made Ground.



### **3.0 SOILS**

#### **3.1 End Users**

With reference to the intrusive investigations undertaken by third parties and Geo-Environmental, it was considered that the Made Ground soils in the Park Farm area of the site were variously impacted by PAH, Lead and asbestos. As such, remedial measures were deemed necessary to protect end users of the proposed properties from soil contamination within private garden and soft landscaped areas across the site.

Given the nature of the contaminants identified within these soils and their recorded depths, the impacted soils were to be removed entirely back to natural ground across the whole of the Park Farm area. Validation inspection, sampling and laboratory testing of exposed soils following the reduced dig was to be undertaken.



#### **4.0 REDUCED DIG AND SOILS DISPOSAL**

The reduced dig was undertaken by Statom Group between 31<sup>st</sup> July and 31<sup>st</sup> August 2023. Statom's factual Remediation Validation Report is included as Appendix A. The arising soils were disposed of off-site and Statom's report includes the relevant waste transfer notes and waste consignment notes.

Statom's works also removed a former septic tank from the site which was previously identified during Geo-Environmental's investigations and not identified as a contamination risk.

Independent inspection of the reduced dig was undertaken by Geo-Environmental on 10<sup>th</sup> and 26<sup>th</sup> August 2023. The records of these independent validation inspections are presented in Appendix B and discussed within Section 5 of this report.



## 5.0 INSPECTION/VALIDATION

### 5.1 Validation inspection of reduced dig works

Validation inspection visits were undertaken during and upon completion of the reduced dig works. The inspections were undertaken on 10<sup>th</sup> and 26<sup>th</sup> August 2023 by a Geo-Environmental Engineer. Inspection of the exposed formation in completed areas was undertaken to visually confirm the removal of Made Ground soils.

The inspections confirmed that in all inspected areas, Made Ground had been removed exposing natural soils. In general, the natural ground conditions were found to comprise firm to stiff orange and grey mottled clay with varying proportions of sand and rare to frequent roots and rootlets.

Validation samples of the exposed formation were also obtained and were submitted to a UKAS accredited laboratory for testing for a suite of commonly occurring brownfield contaminants including asbestos to confirm the chemical suitability of the exposed natural soils. Nine samples were obtained (referenced Base #1 to Base #9) in locations providing a broad coverage of the site. The locations of these samples are shown in Figure 3. The laboratory test results are presented within Appendix C.

The results of the analyses were compared to the Suitable for Use (S4UL) Levels and Category 4 Screening Level (C4SL) for 'private gardens with home-grown produce' (representative of the development end use), which are summarised in Table 5.1 below:

| Determinand                  | Soil Screening Value (mg/kg) | Sample Max. Conc. (mg/kg) | Below Screening Value? |
|------------------------------|------------------------------|---------------------------|------------------------|
| Arsenic                      | 37                           | 8.1                       | Yes                    |
| Benzo(a)pyrene               | 2.7                          | 0.37                      | Yes                    |
| Beryllium                    | 1.7                          | 0.65                      | Yes                    |
| Boron (Water Soluble)        | 290                          | 0.8                       | Yes                    |
| Cadmium                      | 11                           | <0.2                      | Yes                    |
| Chromium (Total)             | 130                          | 33                        | Yes                    |
| Copper                       | 2400                         | 48                        | Yes                    |
| Hexavalent Chromium          | 6                            | <1.8                      | Yes                    |
| Lead                         | 200                          | 57                        | Yes                    |
| Mercury (inorganic)          | 40                           | <0.3                      | Yes                    |
| Nickel                       | 180                          | 9.8                       | Yes                    |
| Phenols                      | 110                          | <1.0                      | Yes                    |
| Selenium                     | 250                          | <1.0                      | Yes                    |
| Total Petroleum Hydrocarbons | 110                          | 35.4                      | Yes                    |
| Vanadium                     | 410                          | 43                        | Yes                    |
| Zinc                         | 3700                         | 200                       | Yes                    |

**Table 5.1 Summary of Chemical Analyses (Validation Inspection Visits 10/08/2023 & 26/08/2023)**

The results indicated that all of the determinands tested were below the limiting concentrations set within the Remediation Strategy and Verification Plan (RSVP).

All samples were submitted for asbestos screening and returned with no asbestos fibres identified.

In addition, the results of the speciated hydrocarbon analyses were all returned as either below the laboratory detection limits or below their respective human health screening values for the proposed end use.

## **6.0 DISCOVERY STRATEGY**

A discovery strategy remains in place throughout the development works on this site. Geo-Environmental has not been made aware of any discoveries having been made to date and thus, the strategy as set out in the RSVP did not require enacting, to the best of our knowledge. However, the strategy remains in place for the remainder of the development works.

## 7.0 VERIFICATION

In accordance with the Client's instruction, Geo-Environmental undertook routine and independent inspection during key stages of the reduced dig process. The risk mitigation measures in relation to remedial measures, reduced dig across the former Park Farm area of the site, have been inspected and were considered to comply with the requirements of the Remediation Strategy and Verification Plan at the point of inspection, unless specifically highlighted herein.

The verification was undertaken by Geo-Environmental in part by obtaining samples of the exposed formation soils following the reduced dig. There was no visual evidence on the site to indicate that the areas remote from the sampling locations were likely to differ significantly from the areas where the samples were obtained. It has been assumed based on the data available that the results of these samples are representative of the exposed formation soils within former Park Farm area of the site.

Geo-Environmental can only verify the reduced dig works at the locations inspected at the time of site visits. Geo-Environmental accepts no liability for areas that have not been directly overseen or inspected or works that have subsequently been undertaken on the site following our inspection visits that may in any way alter or affect the validation works inspected and reported herein.

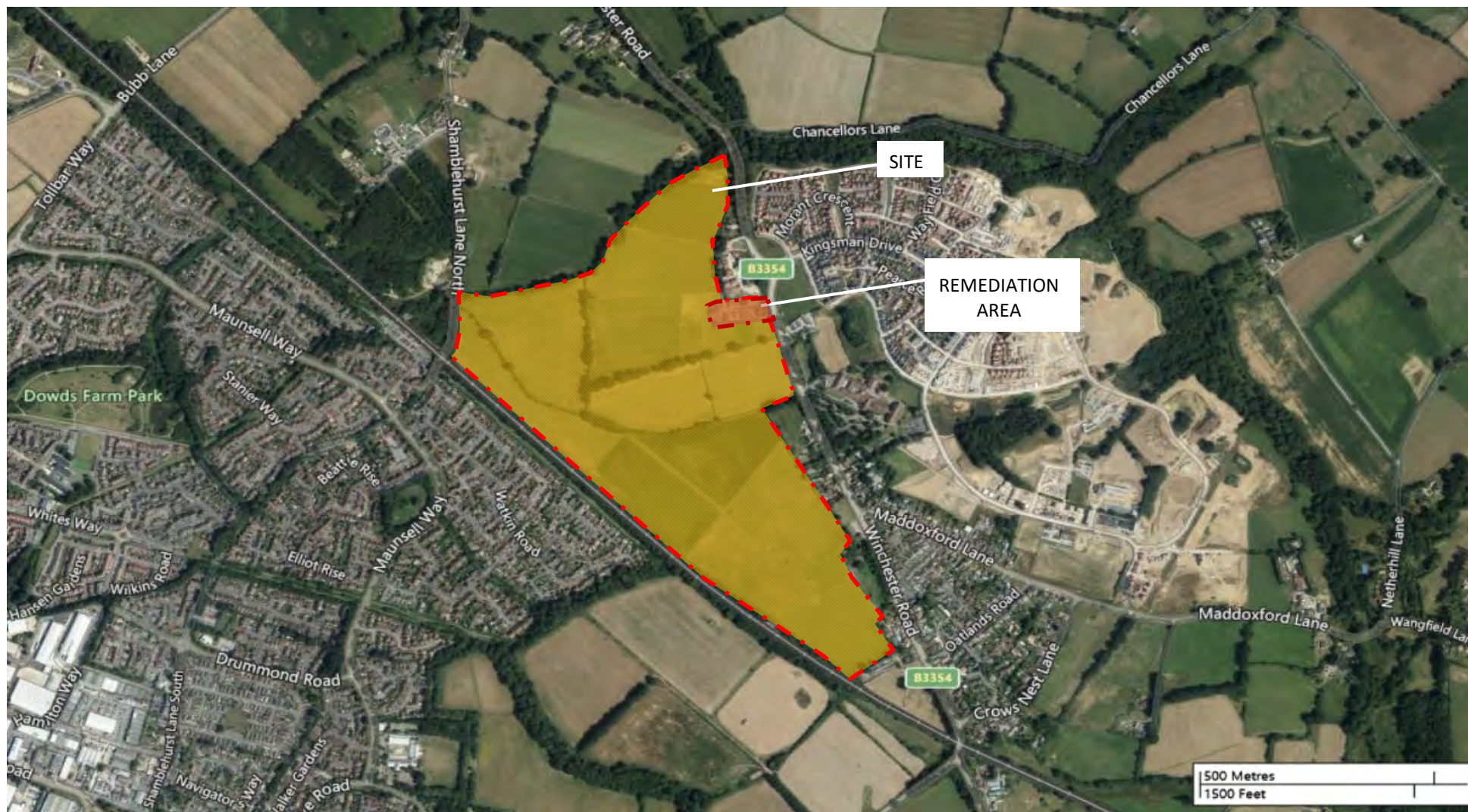
This report remains the property of Geo-Environmental and the Client has no rights to, or reliance upon this document or supporting documents until such time as payment has been received in full for all invoices for works undertaken in connection with this report.



## FIGURES







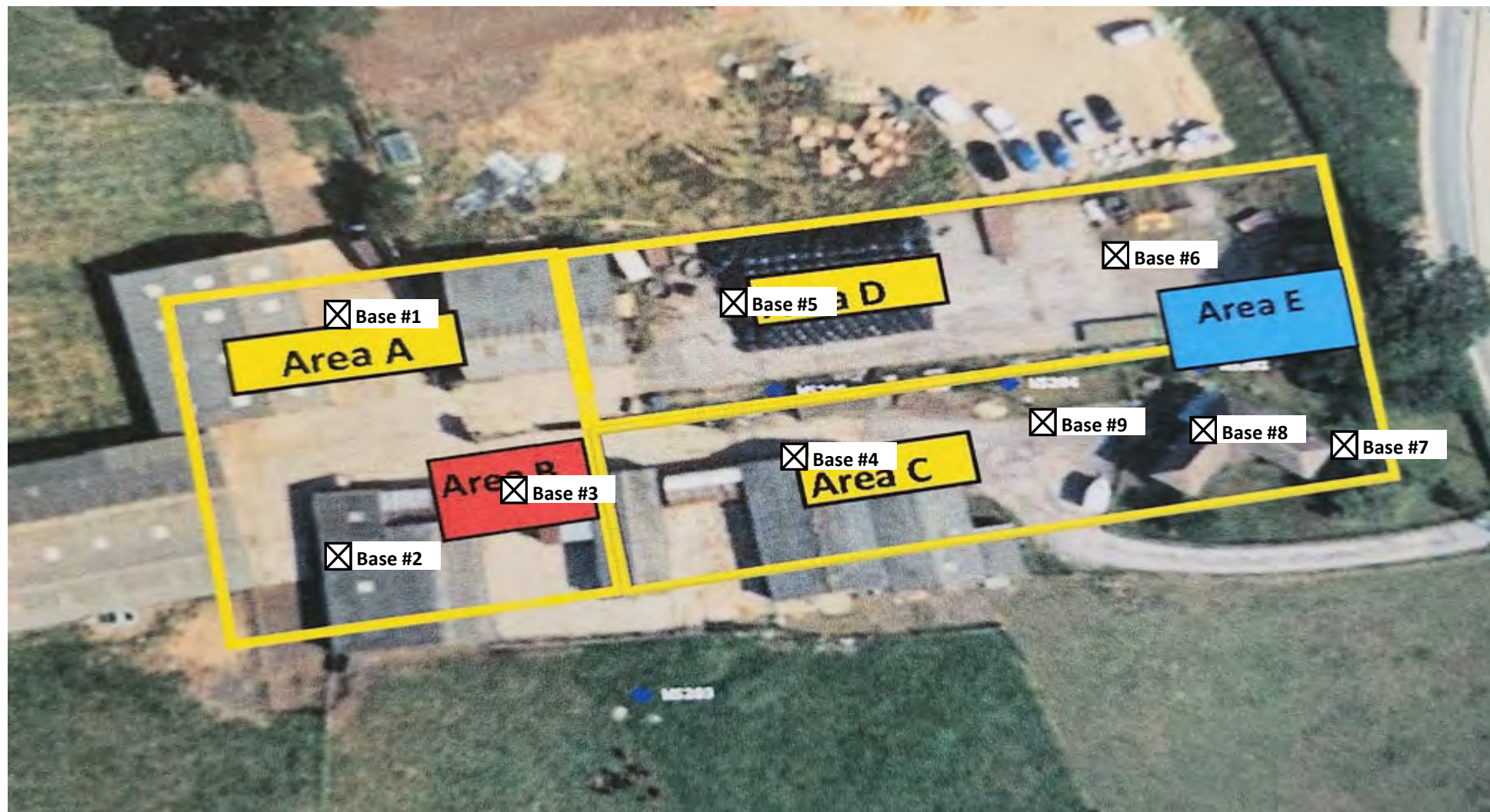
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|-----------------|---------------------------------------------|------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|
| <b>Project:</b> | Boorley Gardens, Winchester Road, Hedge End |                  |              | <b>Title</b>                                                                                                                                                                                         | Site Location Plan                                                                                                    |  |
| <b>Client:</b>  | Bellway Homes & Miller Homes                |                  |              | <b>Geo-Environmental Services Ltd</b><br><br>Unit 7 Danworth Farm, Cuckfield Road<br><br>Hurstpierpoint, West Sussex BN6 9GL<br><br>+44(0)1273 832972 <a href="http://www.gesl.net">www.gesl.net</a> | <br><br><b>Geo-Environmental</b> |  |
| <b>Ref No:</b>  | GE20346                                     | <b>Revision:</b> | 0            |                                                                                                                                                                                                      |                                                                                                                       |  |
| <b>Drawn:</b>   | SA                                          | <b>Date:</b>     | 28/09/2023   |                                                                                                                                                                                                      |                                                                                                                       |  |
| <b>Figure:</b>  | 1                                           | <b>Scale:</b>    | Not To Scale |                                                                                                                                                                                                      |                                                                                                                       |  |





|                 |                                             |                  |              |                                                                                                                                                                                                      |                                                                                                                   |  |
|-----------------|---------------------------------------------|------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|
| <b>Project:</b> | Boorley Gardens, Winchester Road, Hedge End |                  |              | <b>Title</b>                                                                                                                                                                                         | Development Layout Plan                                                                                           |  |
| <b>Client:</b>  | Bellway Homes & Miller Homes                |                  |              | <b>Geo-Environmental Services Ltd</b><br><br>Unit 7 Danworth Farm, Cuckfield Road<br><br>Hurstpierpoint, West Sussex BN6 9GL<br><br>+44(0)1273 832972 <a href="http://www.gesl.net">www.gesl.net</a> | <br><b>Geo-Environmental</b> |  |
| <b>Ref No:</b>  | GE20346                                     | <b>Revision:</b> | 0            |                                                                                                                                                                                                      |                                                                                                                   |  |
| <b>Drawn:</b>   | SA                                          | <b>Date:</b>     | 28/09/2023   |                                                                                                                                                                                                      |                                                                                                                   |  |
| <b>Figure:</b>  | 2                                           | <b>Scale:</b>    | Not To Scale |                                                                                                                                                                                                      |                                                                                                                   |  |





|                 |                                 |                  |              |                                                                                                                                                                    |                                                                                                                       |  |
|-----------------|---------------------------------|------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|
| <b>Project:</b> | Boorley Gardens, Park Farm Area |                  |              | <b>Title</b>                                                                                                                                                       | Location of Validation Samples                                                                                        |  |
| <b>Client:</b>  | Bellway Homes & Miller Homes    |                  |              | <b>Geo-Environmental Services Ltd</b><br><br>Unit 7 Danworth Farm, Cuckfield Road<br><br>Hurstpierpoint, West Sussex BN6 9GL<br><br>+44(0)1273 832972 www.gesl.net | <br><br><b>Geo-Environmental</b> |  |
| <b>Ref No:</b>  | GE20346                         | <b>Revision:</b> | 0            |                                                                                                                                                                    |                                                                                                                       |  |
| <b>Drawn:</b>   | FG                              | <b>Date:</b>     | 26/08/2023   |                                                                                                                                                                    |                                                                                                                       |  |
| <b>Figure:</b>  | 3                               | <b>Scale:</b>    | Not To Scale |                                                                                                                                                                    |                                                                                                                       |  |



## **APPENDIX A**

### Statom Remediation Validation Report



# Statom Remediation Validation Report

Boorely Gardens, Winchester Road,  
Southampton, SO32 2BX



**STATOM GROUP**  
REMEDICATION • GROUNDWORKS • STRUCTURES

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# **Factual Letter Report for the completed remediation works at Park Farm of Boorley Gardens, Southampton.**

## **Introduction**

Statom Group Ltd. (hereafter referred as 'SGL') were appointed by Jackson Rowe (the client) to carry out the remediation at a project for Park Farm at Boorely Gardens, Winchester Road, Southampton, SO32 2BX. Following the instruction from the client the works commenced on 31<sup>st</sup> July 2023 and completed within 4 weeks, ending by 31<sup>st</sup> August 2023.

This letter report covers the factual record of works completed by Statom including the procedures, equipment, and the requirement for remediation works according to the environmental supporting documents listed below.

| <b>Supporting documents</b>                                       | <b>Issued date</b> |
|-------------------------------------------------------------------|--------------------|
| Remediation Strategy and Verification Plan (GE20346/RSVPv4/MAR23) | March 2023         |
| Ground Appraisal Report (GE20584/GARv2/MAR23)                     | March 2023         |
| JR1-2262 Park Farm remediation DRAFT rev 3                        | April 2023         |

## **Background**

Ground Appraisal Report by Geo-Environmental Services Ltd. (hereafter referred as 'GESL') (GE20584/GARv2/MAR23) affirmed hydrocarbon contaminations during their intrusive site investigations. Asbestos fragments were also recorded after demolition of farmyards and farmhouse. Therefore, to remove the risk to human health and the environment the land needed to be remediated. The proposed development includes residential units comprising private gardens, landscaping, and public open spaces with parking facilities. Following the site investigations, GESL were appointed to produce a Remediation Strategy and Verification Plan (GE20346/RSVPv4/MAR23) for the site. The proposed remedial works required by SGL were carried out in an area known as Parcel 1D within the greater Boorley Development. Parcel 1D has an area of approximately 2.5 ha located at National Grid Reference 450346, 115099. Appendix A Figure 1 illustrates the site location plan. SGL remedial works included excavating the made ground and soft landscaping across the site down to virgin ground (depths ranged from between 100-550 mm) and disposal offsite of the arisings following the appropriate waste classification. A detailed description of the works completed by SGL has been provided below.

## Works Completed

- SGL Review of the site investigation prior to commencement of works.
- Upon the identification of key potential environmental aspects and impacts, Construction Environmental Management Plan (CEMP) was developed to propose appropriate environmental measures and mitigation measures.
- Site set up was completed (boundary fencing & signage, welfare & storage areas etc.) as shown in Appendix A Figure 2.
- Remedial works were carried out in 5 Areas/phases within Parcel 1D as illustrated in Appendix A Figure 3.
- Made ground in each area was scraped to the virgin ground which was between 150 mm and 400 mm.
- Excavated soil of each area was then stockpiled within the same phase to prevent any potential cross contaminations as shown in Appendix A Figure 3.
- Soil samples were taken by a geo-environmental engineer from these individual stockpiles and sent to an UKAS Accredited Laboratory. Results obtained are attached in Appendix C.
- Samples were scheduled for a range of determinants to aid with waste characterisation and WAC testing was scheduled on some of the representative materials to aid with disposal.
- All the excavated soil were disposed offsite using 8-wheel tippers provided by a licensed waste carriers and their Waste Carrier Licenses are shown in Appendix E.
- From the testing some of the material in Area A was identified to contain visible chrysotile asbestos fragments. This area was dampened down with water suppression and real time air monitoring set up. The material was then carefully segregated out and disposed of site to Dunton Technologies Waste Treatment Facility using an 8-wheel tipper lorry. Hazardous Waste Consignment Notes were issued during this process as shown in Appendix D. All hazardous soils removal from this area occurred on the 9<sup>th</sup> August 2023.
- Excavated soil arisings in other areas were accepted under the 17.05.04 EWC code to be disposed offsite by TJ Transports Haulage and Waste Transfer Notes (WTNs) were issued for every load removed during this process as shown in Appendix D.
- Dust monitoring was carried out using dust frisbee gauges throughout the duration of the project with reports being produced by a laboratory on a weekly basis from 4 dust frisbee locations along the site boundary as shown in Appendix A Figure 2. Dust frisbee bottle samples were tested for both dust analysis and asbestos ID.
- Real-time asbestos monitoring was also conducted during works using Alert Pro 1000. Daily reports were produced indicating the amounts of airborne fibres in the surrounding air during the monitored period. No alarms or warnings were raised by



Alert Pro 1000 which meant it was safe to carry out the works in the site. Alert Pro 1000 and dust monitoring result reports are attached in Appendix F.

- Handheld noise monitors were used daily along the site boundaries to monitor noise levels during the working day and during site activities.
- Once the made ground had been removed off site and the formation was at the natural geology, GESL were informed so they could carry out a visual assessment of each individual area and tick a sign off sheet (Appendix G)
- Inspection Test Plans (ITPs) were also completed for each area at the end of works and sign off sheets were completed by the client following the data review and approval. Sign off sheets and ITPs for area A, B, C, D, and E are attached in Appendix G.
- Surveys at the site were completed at the start of the works prior to excavation and then again at the end of the project to show the difference present the finished levels upon completion. These survey drawings can be found within Appendix H.

## **Summary**

SGL have successfully completed the remediation requirements set out within the GESL and Jackson Rowe reports within programme, enabling the site to be handed back over to the client ready for the next phase of development. The risk to human health of workers and future occupiers of the site along with contamination risks posed to the surrounding environment has been greatly reduced following the remedial works carried out by Statom Group.

If you have any questions regarding the works completed by Statom or the information contained within this report, please do not hesitate to get in contact.

Yours Sincerely

Ishara Shiromi

Graduate Remediation Engineer

[ishara.shiromi@statom.co.uk](mailto:ishara.shiromi@statom.co.uk)

Approved by

Michael Gillman

Group Environmental Manager

[michael.gillman@statom.co.uk](mailto:michael.gillman@statom.co.uk)

# **APPENDIX A**

## **Site location & site setting plan**







**Figure 2:** Location of different installations within the site plan



**Figure 3:** Soil and tarmac sampling locations within different areas



# **Appendix B**

## **Site Photographs**

**Statom Group Limited**

Statom House, 795 London Road, Grays, Essex, RM20 3LH

Tel: 01708 222 777

[www.statom.co.uk](http://www.statom.co.uk)

Registered in England and Wales

Company No: 8785228 VAT 177634867

**ST176 Park Farm QA - ITP photo Library of Pre-Site Photos Areas A-E**





**ST176 Park Farm QA - ITP photo Library of Pre-Site Photos Areas A-E**





**ST176 Park Farm QA - ITP photo Library of Pre-Site Photos Areas A-E**







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## ST176 Park Farm QA - ITP photo Library of Pre-Site Photos Areas A-E





**ST176 Park Farm QA - ITP photo Library of Pre-Site Photos Areas A-E**





**ST176 Park Farm QA - ITP photo Library of Pre-Site Photos Areas A-E**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA - ITP photo Library of Area A RLD back to Virgin ground**





**ST176 Park Farm QA – ITP of the Asbestos removal from Area B**





**ST176 Park Farm QA – ITP of the Asbestos removal from Area B**





**ST176 Park Farm QA – ITP of the Asbestos removal from Area B**







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## ST176 Park Farm QA - ITP photo Library of Area C RLD back to Virgin ground







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REMEDIATION • GROUNDWORKS • STRUCTURES

## ST176 Park Farm QA - ITP photo Library of Area C RLD back to Virgin ground







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

## ST176 Park Farm QA - ITP photo Library of Area C RLD back to Virgin ground







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

ST176 Park Farm QA - ITP photo Library of Area C RLD back to Virgin ground







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

ST176 Park Farm QA - ITP photo Library of Area D RLD back to Virgin ground







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

ST176 Park Farm QA - ITP photo Library of Area D RLD back to Virgin ground







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

ST176 Park Farm QA - ITP photo Library of Area D RLD back to Virgin ground







# STATOM GROUP

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## ST176 Park Farm QA - ITP photo Library of Area D RLD back to Virgin ground







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**ST176 Park Farm QA - ITP photo Library of Area E remove Tarmac Entrance  
back to Virgin ground.**







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

**ST176 Park Farm QA - ITP photo Library of Area E remove Tarmac Entrance  
back to Virgin ground.**







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

**ST176 Park Farm QA - ITP photo Library of Area E remove Tarmac Entrance  
back to Virgin ground.**







# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

**ST176 Park Farm QA - ITP photo Library of Area E remove Tarmac Entrance  
back to Virgin ground.**



**ST176 Park Farm QA - ITP photo Library of Soil Samples taken for testing.**

**ST176 Boorley Gardens Area 1 D Soil and Tarmac samples locations**



ST176-SSL-Rev-01

02/08/2023

STATOM Group Ltd



ST176 Park Farm QA - ITP photo Library of Soil Samples taken for testing.





**ST176 Park Farm QA - ITP photo Library of Soil Samples taken for testing.**





# **Appendix C**

## **Chemical Testing Results**

**Statom Group Limited**

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---

## THE ENVIRONMENTAL LABORATORY LTD

---

**Analytical Report Number:** 23-49330

**Issue:** 1

**Date of Issue:** 14/08/2023

**Contact:** Michael Gillman

**Customer Details:** Statom Group Ltd  
Statom House  
795 London Road  
Grays  
EssexRM20 3LH

**Quotation No:** Q23-03838

**Order No:** 176-60185 LR

**Customer Reference:** Not Supplied

**Date Received:** 02/08/2023

**Date Approved:** 14/08/2023

**Details:** Boorely Green

**Approved by:**



Graham Knight, Lab Manager

---

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

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## Sample Summary

Report No.: 23-49330, issue number 1

| Elab No. | Client's Ref. | Date Sampled | Date Scheduled | Description      | Deviations |
|----------|---------------|--------------|----------------|------------------|------------|
| 333203   | 1             | 31/07/2023   | 02/08/2023     | Sandy silty loam |            |
| 333204   | 2             | 31/07/2023   | 02/08/2023     | Sandy silty loam |            |
| 333205   | 3             | 31/07/2023   | 02/08/2023     | Silty loam       |            |
| 333206   | 4             | 31/07/2023   | 02/08/2023     | Silty loam       |            |
| 333207   | 5             | 31/07/2023   | 02/08/2023     | Sandy silty loam |            |
| 333208   | 6             | 31/07/2023   | 02/08/2023     | Tarmac           | c          |

## Results Summary

Report No.: 23-49330, issue number 1

|                                           |       |          |      |            |            |            |            |            |            |
|-------------------------------------------|-------|----------|------|------------|------------|------------|------------|------------|------------|
| ELAB Reference                            |       |          |      | 333203     | 333204     | 333205     | 333206     | 333207     | 333208     |
| Customer Reference                        |       |          |      |            |            |            |            |            |            |
| Sample ID                                 |       |          |      |            |            |            |            |            |            |
| Sample Type                               |       |          |      | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sample Location                           |       |          |      | 1          | 2          | 3          | 4          | 5          | 6          |
| Sample Depth (m)                          |       |          |      |            |            |            |            |            |            |
| Sampling Date                             |       |          |      | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 |
| Determinand                               | Codes | Units    | LOD  |            |            |            |            |            |            |
| <b>Soil sample preparation parameters</b> |       |          |      |            |            |            |            |            |            |
| Moisture Content                          | N     | %        | 0.1  | 10.8       | 7.8        | 11.3       | 15.2       | 13.2       | 0.6        |
| Material removed                          | N     | %        | 0.1  | 9.6        | 8.4        | 18.2       | 39.5       | 16.6       | < 0.1      |
| Description of Inert material removed     | N     |          | 0    | Stones     | Stones     | Stones     | Stones     | Stones     | All Tar    |
| <b>Metals</b>                             |       |          |      |            |            |            |            |            |            |
| Arsenic                                   | M     | mg/kg    | 0.5  | 37.7       | 23.3       | 14.6       | 10.2       | 7.9        | ^ 8.1      |
| Cadmium                                   | M     | mg/kg    | 0.2  | 1.7        | 1.5        | 1.5        | 0.9        | 0.6        | ^ 0.9      |
| Chromium                                  | M     | mg/kg    | 1    | 30.1       | 27.1       | 28.8       | 25.5       | 20.2       | ^ 12.8     |
| Copper                                    | M     | mg/kg    | 4    | 48.7       | 23.9       | 21.5       | 49.5       | 14.4       | ^ 14.5     |
| Lead                                      | M     | mg/kg    | 1    | 105        | 68.8       | 110        | 140        | 72.2       | ^ 28.9     |
| Mercury                                   | M     | mg/kg    | 0.1  | 0.2        | < 0.1      | 0.1        | 0.1        | 0.1        | ^ < 0.1    |
| Nickel                                    | M     | mg/kg    | 1    | 18.3       | 14.1       | 15.7       | 13.5       | 6.8        | ^ 11.3     |
| Selenium                                  | M     | mg/kg    | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | ^ < 1.0    |
| Zinc                                      | M     | mg/kg    | 4.5  | 191        | 150        | 120        | 199        | 59.9       | ^ 86.2     |
| <b>Miscellaneous</b>                      |       |          |      |            |            |            |            |            |            |
| pH                                        | M     | pH units | 0.1  | 10.0       | 9.1        | 8.4        | 8.7        | 8.1        | ^ 9.0      |
| Total Organic Carbon                      | N     | %        | 0.01 | 2.8        | 0.62       | n/t        | n/t        | n/t        | n/t        |
| <b>Polyaromatic hydrocarbons</b>          |       |          |      |            |            |            |            |            |            |
| Total (of 17) PAHs                        | N     | mg/kg    | 2    | 15         | < 2        | n/t        | n/t        | n/t        | n/t        |
| Naphthalene GCMS                          | N     | mg/kg    | 0.01 | 0.03       | < 0.01     | 0.07       | < 0.01     | 0.01       | c 0.02     |
| Acenaphthylene GCMS                       | N     | mg/kg    | 0.01 | 0.03       | < 0.01     | 0.03       | 0.02       | < 0.01     | c 0.06     |
| Acenaphthene GCMS                         | N     | mg/kg    | 0.01 | 0.03       | < 0.01     | 0.09       | < 0.01     | < 0.01     | c 0.10     |
| Fluorene GCMS                             | N     | mg/kg    | 0.01 | 0.02       | < 0.01     | 0.08       | 0.02       | < 0.01     | c 0.15     |
| Phenanthrene GCMS                         | N     | mg/kg    | 0.01 | 0.21       | 0.07       | 0.49       | 0.22       | 0.04       | c 1.87     |
| Anthracene GCMS                           | N     | mg/kg    | 0.01 | 0.09       | 0.04       | 0.23       | 0.08       | 0.02       | c 0.55     |
| Fluoranthene GCMS                         | N     | mg/kg    | 0.01 | 0.66       | 0.25       | 0.92       | 0.44       | 0.09       | c 4.96     |
| Pyrene GCMS                               | N     | mg/kg    | 0.01 | 0.60       | 0.26       | 0.76       | 0.38       | 0.08       | c 4.03     |
| Benzo(a)anthracene GCMS                   | N     | mg/kg    | 0.01 | 0.36       | 0.13       | 0.55       | 0.15       | 0.03       | c 2.07     |
| Chrysene GCMS                             | N     | mg/kg    | 0.01 | 0.59       | 0.22       | 0.91       | 0.23       | 0.08       | c 2.80     |
| Benzo(b)fluoranthene GCMS                 | N     | mg/kg    | 0.01 | 0.93       | 0.22       | 1.18       | 0.21       | 0.05       | c 2.23     |
| Benzo(k)fluoranthene GCMS                 | N     | mg/kg    | 0.01 | 0.86       | 0.27       | 0.99       | 0.25       | 0.06       | c 1.96     |
| Benzo(a)pyrene GCMS                       | N     | mg/kg    | 0.01 | 1.07       | 0.30       | 1.21       | 0.21       | 0.06       | c 2.51     |
| Indeno(1,2,3-cd)pyrene GCMS               | N     | mg/kg    | 0.01 | 1.00       | 0.20       | 0.83       | 0.12       | 0.04       | c 1.43     |
| Dibenzo(a,h)anthracene GCMS               | N     | mg/kg    | 0.01 | 0.27       | 0.05       | 0.26       | 0.04       | 0.01       | c 0.34     |
| Benzo(g,h,i)perylene GCMS                 | N     | mg/kg    | 0.01 | 1.27       | 0.27       | 0.90       | 0.17       | 0.05       | c 1.66     |
| Total PAH(16) GCMS                        | N     | mg/kg    | 0.04 | 8.02       | 2.31       | 9.49       | 2.56       | 0.62       | c 26.7     |



## Results Summary

Report No.: 23-49330, issue number 1

| ELAB Reference                                    |       |       |      | 333203     | 333204     | 333205     | 333206     | 333207     | 333208     |
|---------------------------------------------------|-------|-------|------|------------|------------|------------|------------|------------|------------|
| Customer Reference                                |       |       |      |            |            |            |            |            |            |
| Sample ID                                         |       |       |      |            |            |            |            |            |            |
| Sample Type                                       |       |       |      | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
| Sample Location                                   |       |       |      | 1          | 2          | 3          | 4          | 5          | 6          |
| Sample Depth (m)                                  |       |       |      |            |            |            |            |            |            |
| Sampling Date                                     |       |       |      | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 | 31/07/2023 |
| Determinand                                       | Codes | Units | LOD  |            |            |            |            |            |            |
| <b>BTEX</b>                                       |       |       |      |            |            |            |            |            |            |
| Benzene                                           | M     | ug/kg | 10   | < 10.0     | < 10.0     | < 10.0     | < 10.0     | < 10.0     | c^ < 10.0  |
| Toluene                                           | M     | ug/kg | 10   | < 10.0     | < 10.0     | < 10.0     | < 10.0     | < 10.0     | c^ < 10.0  |
| Ethylbenzene                                      | M     | ug/kg | 10   | < 10.0     | < 10.0     | < 10.0     | < 10.0     | < 10.0     | c^ < 10.0  |
| Xylenes                                           | M     | ug/kg | 10   | < 10.0     | < 10.0     | < 10.0     | < 10.0     | < 10.0     | c^ < 10.0  |
| MTBE                                              | U     | ug/kg | 10   | < 10.0     | < 10.0     | < 10.0     | < 10.0     | < 10.0     | c < 10.0   |
| Total BTEX                                        | U     | mg/kg | 0.01 | < 0.01     | < 0.01     | n/t        | n/t        | n/t        | n/t        |
| <b>TPH CWG</b>                                    |       |       |      |            |            |            |            |            |            |
| >C5-C6 Aliphatic (HS_1D_MS)                       | N     | mg/kg | 0.01 | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | c < 0.01   |
| >C6-C8 Aliphatic (HS_1D_MS)                       | N     | mg/kg | 0.01 | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | c < 0.01   |
| >C8-C10 Aliphatic (EH_CU_1D_AL)                   | N     | mg/kg | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | c < 1.0    |
| >C10-C12 Aliphatic (EH_CU_1D_AL)                  | N     | mg/kg | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | c < 1.0    |
| >C12-C16 Aliphatic (EH_CU_1D_AL)                  | N     | mg/kg | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | c 1.3      |
| >C16-C21 Aliphatic (EH_CU_1D_AL)                  | N     | mg/kg | 1    | 2.7        | < 1.0      | 3.3        | 1.1        | < 1.0      | c 76.1     |
| >C21-C35 Aliphatic (EH_CU_1D_AL)                  | N     | mg/kg | 1    | 82.0       | 28.1       | 40.4       | 22.8       | 3.6        | c 4100     |
| >C35-C40 Aliphatic (EH_CU_1D_AL)                  | N     | mg/kg | 1    | 54.2       | 17.0       | 16.9       | 8.2        | 2.1        | c 1190     |
| Total (>C5-C40) Aliphatic (HS_1D_MS+EH_CU_1D_AL)  | N     | mg/kg | 1    | 139        | 45.1       | 60.6       | 31.0       | 5.7        | c 5370     |
| >C5-C7 Aromatic (HS_1D_MS)                        | N     | mg/kg | 0.01 | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | c < 0.01   |
| >C7-C8 Aromatic (HS_1D_MS)                        | N     | mg/kg | 0.01 | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | c < 0.01   |
| >C8-C10 Aromatic (EH_CU_1D_AR)                    | N     | mg/kg | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | c < 1.0    |
| >C10-C12 Aromatic (EH_CU_1D_AR)                   | N     | mg/kg | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | c < 1.0    |
| >C12-C16 Aromatic (EH_CU_1D_AR)                   | N     | mg/kg | 1    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | c 1.8      |
| >C16-C21 Aromatic (EH_CU_1D_AR)                   | N     | mg/kg | 1    | 2.7        | 1.1        | 3.7        | < 1.0      | < 1.0      | c 40.9     |
| >C21-C35 Aromatic (EH_CU_1D_AR)                   | N     | mg/kg | 1    | 219        | 73.1       | 79.4       | 23.3       | 7.7        | c 1100     |
| >C35-C40 Aromatic (EH_CU_1D_AR)                   | N     | mg/kg | 1    | 188        | 50.4       | 44.9       | 13.9       | 5.4        | c 663      |
| Total (>C5-C40) Aromatic (HS_1D_MS+EH_CU_1D_AR)   | N     | mg/kg | 1    | 409        | 125        | 128        | 37.1       | 13.1       | c 1810     |
| Total (>C5-C40) Ali/Aro (HS_1D_MS+EH_CU_1D_Total) | N     | mg/kg | 1    | 548        | 170        | 189        | 68.1       | 18.8       | c 7180     |
| <b>Total Petroleum Hydrocarbons</b>               |       |       |      |            |            |            |            |            |            |
| Mineral Oil w Florisil (EH_CU_1D_Total)           | N     | mg/kg | 5    | 95         | 44         | n/t        | n/t        | n/t        | n/t        |
| <b>PCB (ICES 7 congeners)</b>                     |       |       |      |            |            |            |            |            |            |
| Total PCBs (7 congeners)                          | N     | mg/kg | 0.03 | < 0.03     | < 0.03     | n/t        | n/t        | n/t        | n/t        |

## Results Summary

Report No.: 23-49330, issue number 1

### WAC Analysis

| Elab Ref:                      | 333204        |      |        |  |        | Landfill Waste Acceptance Criteria Limits* |                                                               |                          |
|--------------------------------|---------------|------|--------|--|--------|--------------------------------------------|---------------------------------------------------------------|--------------------------|
| Sample Date:                   | 31/07/2023    |      |        |  |        | Inert Waste Landfill                       | Stable Non-reactive Hazardous waste in non-hazardous Landfill | Hazardous Waste Landfill |
| Sample ID:                     | 2             |      |        |  |        |                                            |                                                               |                          |
| Depth (m)                      |               |      |        |  |        |                                            |                                                               |                          |
| Site:                          | Boorely Green |      |        |  |        |                                            |                                                               |                          |
|                                |               |      |        |  |        |                                            |                                                               |                          |
| Determinand                    |               | Code | Units  |  |        |                                            |                                                               |                          |
| Total Organic Carbon           |               | N    | %      |  | 0.62   | 3                                          | 5                                                             | 6                        |
| Loss on Ignition               |               | M    | %      |  |        | --                                         | --                                                            | 10                       |
| Total BTEX                     |               | M    | mg/kg  |  | < 0.01 | 6                                          | --                                                            | --                       |
| Total PCBs (7 congeners)       |               | N    | mg/kg  |  | < 0.03 | 1                                          | --                                                            | --                       |
| TPH Total WAC (EH_CU_1D_Total) |               | N    | mg/kg  |  | 44     | 500                                        | --                                                            | --                       |
| Total (of 17) PAHs             |               | N    | mg/kg  |  | < 2    | 100                                        | --                                                            | --                       |
| pH                             |               | M    |        |  | 9.1    | --                                         | >6                                                            | --                       |
| Acid Neutralisation Capacity   |               | N    | mol/kg |  |        | --                                         | To evaluate                                                   | To evaluate              |

### Eluate Analysis

|                          |  |   | 10:1    | 10:1   | Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg |       |        |
|--------------------------|--|---|---------|--------|------------------------------------------------------------------------------|-------|--------|
|                          |  |   | mg/l    | mg/kg  |                                                                              |       |        |
| Arsenic                  |  | N | 0.020   | 0.20   | 0.5                                                                          | 2     | 25     |
| Barium                   |  | N | 0.037   | 0.37   | 20                                                                           | 100   | 300    |
| Cadmium                  |  | N | < 0.001 | < 0.01 | 0.04                                                                         | 1     | 5      |
| Chromium                 |  | N | < 0.005 | < 0.05 | 0.5                                                                          | 10    | 70     |
| Copper                   |  | N | < 0.005 | < 0.05 | 2                                                                            | 50    | 100    |
| Mercury                  |  | N | < 0.005 | < 0.01 | 0.01                                                                         | 0.2   | 2      |
| Molybdenum               |  | N | < 0.005 | < 0.05 | 0.5                                                                          | 10    | 30     |
| Nickel                   |  | N | < 0.001 | < 0.05 | 0.4                                                                          | 10    | 40     |
| Lead                     |  | N | < 0.001 | < 0.05 | 0.5                                                                          | 10    | 50     |
| Antimony                 |  | N | < 0.005 | < 0.05 | 0.06                                                                         | 0.7   | 5      |
| Selenium                 |  | N | < 0.005 | < 0.05 | 0.1                                                                          | 0.5   | 7      |
| Zinc                     |  | N | < 0.005 | < 0.05 | 4                                                                            | 50    | 200    |
| Chloride                 |  | N | < 5     | < 50   | 800                                                                          | 15000 | 25000  |
| Fluoride                 |  | N | < 5     | < 10   | 10                                                                           | 150   | 500    |
| Sulphate                 |  | N | 9       | 86.90  | 1000                                                                         | 20000 | 50000  |
| Total Dissolved Solids   |  | N | 78      | 780.00 | 4000                                                                         | 60000 | 100000 |
| Phenol Index             |  | N | < 0.01  | < 0.10 | 1                                                                            | -     | -      |
| Dissolved Organic Carbon |  | N |         | 85.00  | 500                                                                          | 800   | 1000   |

### Leach Test Information

|                              |  |   |         |  |  |  |  |
|------------------------------|--|---|---------|--|--|--|--|
| pH                           |  | N | 8.4     |  |  |  |  |
| Conductivity (uS/cm)         |  | N | 116     |  |  |  |  |
| Dry mass of test portion (g) |  |   | 102.000 |  |  |  |  |
| Dry Matter (%)               |  |   | 94      |  |  |  |  |
| Moisture (%)                 |  |   | 6       |  |  |  |  |
| Eluent Volume (ml)           |  |   | 986     |  |  |  |  |

Results are expressed on a dry weight basis, after correction for moisture content where applicable

\* Stated limits are for guidance only, and not for conformity assessment.



## Results Summary

Report No.: 23-49330, issue number 1

### WAC Analysis

| Elab Ref:                      | 333203        |      |        |  |        | Landfill Waste Acceptance Criteria Limits* |                                                               |                          |
|--------------------------------|---------------|------|--------|--|--------|--------------------------------------------|---------------------------------------------------------------|--------------------------|
| Sample Date:                   | 31/07/2023    |      |        |  |        | Inert Waste Landfill                       | Stable Non-reactive Hazardous waste in non-hazardous Landfill | Hazardous Waste Landfill |
| Sample ID:                     | 1             |      |        |  |        |                                            |                                                               |                          |
| Depth (m)                      |               |      |        |  |        |                                            |                                                               |                          |
| Site:                          | Boorely Green |      |        |  |        |                                            |                                                               |                          |
|                                |               |      |        |  |        |                                            |                                                               |                          |
| Determinand                    |               | Code | Units  |  |        |                                            |                                                               |                          |
| Total Organic Carbon           |               | N    | %      |  | 2.80   | 3                                          | 5                                                             | 6                        |
| Loss on Ignition               |               | M    | %      |  |        | --                                         | --                                                            | 10                       |
| Total BTEX                     |               | M    | mg/kg  |  | < 0.01 | 6                                          | --                                                            | --                       |
| Total PCBs (7 congeners)       |               | N    | mg/kg  |  | < 0.03 | 1                                          | --                                                            | --                       |
| TPH Total WAC (EH_CU_1D_Total) |               | N    | mg/kg  |  | 95     | 500                                        | --                                                            | --                       |
| Total (of 17) PAHs             |               | N    | mg/kg  |  | 15.0   | 100                                        | --                                                            | --                       |
| pH                             |               | M    |        |  | 10.0   | --                                         | >6                                                            | --                       |
| Acid Neutralisation Capacity   |               | N    | mol/kg |  |        | --                                         | To evaluate                                                   | To evaluate              |

### Eluate Analysis

|                          |  |   | 10:1    | 10:1   | Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg |       |        |
|--------------------------|--|---|---------|--------|------------------------------------------------------------------------------|-------|--------|
|                          |  |   | mg/l    | mg/kg  |                                                                              |       |        |
| Arsenic                  |  | N | < 0.005 | < 0.05 | 0.5                                                                          | 2     | 25     |
| Barium                   |  | N | 0.012   | 0.12   | 20                                                                           | 100   | 300    |
| Cadmium                  |  | N | < 0.001 | < 0.01 | 0.04                                                                         | 1     | 5      |
| Chromium                 |  | N | < 0.005 | < 0.05 | 0.5                                                                          | 10    | 70     |
| Copper                   |  | N | < 0.005 | < 0.05 | 2                                                                            | 50    | 100    |
| Mercury                  |  | N | < 0.005 | < 0.01 | 0.01                                                                         | 0.2   | 2      |
| Molybdenum               |  | N | < 0.005 | < 0.05 | 0.5                                                                          | 10    | 30     |
| Nickel                   |  | N | < 0.001 | < 0.05 | 0.4                                                                          | 10    | 40     |
| Lead                     |  | N | < 0.001 | < 0.05 | 0.5                                                                          | 10    | 50     |
| Antimony                 |  | N | < 0.005 | < 0.05 | 0.06                                                                         | 0.7   | 5      |
| Selenium                 |  | N | < 0.005 | < 0.05 | 0.1                                                                          | 0.5   | 7      |
| Zinc                     |  | N | < 0.005 | < 0.05 | 4                                                                            | 50    | 200    |
| Chloride                 |  | N | < 5     | < 50   | 800                                                                          | 15000 | 25000  |
| Fluoride                 |  | N | < 5     | < 10   | 10                                                                           | 150   | 500    |
| Sulphate                 |  | N | 21      | 213.00 | 1000                                                                         | 20000 | 50000  |
| Total Dissolved Solids   |  | N | 100     | 999.00 | 4000                                                                         | 60000 | 100000 |
| Phenol Index             |  | N | < 0.01  | < 0.10 | 1                                                                            | -     | -      |
| Dissolved Organic Carbon |  | N |         | 82.00  | 500                                                                          | 800   | 1000   |

### Leach Test Information

|                              |  |   |         |  |  |  |  |
|------------------------------|--|---|---------|--|--|--|--|
| pH                           |  | N | 8.0     |  |  |  |  |
| Conductivity (uS/cm)         |  | N | 149     |  |  |  |  |
| Dry mass of test portion (g) |  |   | 101.000 |  |  |  |  |
| Dry Matter (%)               |  |   | 90      |  |  |  |  |
| Moisture (%)                 |  |   | 12      |  |  |  |  |
| Eluent Volume (ml)           |  |   | 979     |  |  |  |  |

Results are expressed on a dry weight basis, after correction for moisture content where applicable

\* Stated limits are for guidance only, and not for conformity assessment.



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards on Sea, East Sussex, TN38 9BY  
Tel: +44 (0)1424 718618, Email: [info@elab-uk.co.uk](mailto:info@elab-uk.co.uk), Web: [www.elab-uk.co.uk](http://www.elab-uk.co.uk)

## Results Summary

Report No.: 23-49330, issue number 1

### Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client

| Elab No | Depth (m) | Clients Reference | Description of Sample Matrix #            | Asbestos Identification | Gravimetric Analysis Total (%) | Gravimetric Analysis by ACM Type (%) | Free Fibre Analysis (%) | Total Asbestos (%) |
|---------|-----------|-------------------|-------------------------------------------|-------------------------|--------------------------------|--------------------------------------|-------------------------|--------------------|
| 333203  |           | 1                 | Brown Sandy Soil, Stones                  | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 333204  |           | 2                 | Brown Sandy Soil, Stones, Tar, Concrete   | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 333205  |           | 3                 | Brown Sandy Soil, Stones, Brick           | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 333206  |           | 4                 | Brown Sandy Soil, Stones, Brick, Concrete | Amosite (Fibre Bundles) | n/t                            | n/t                                  | n/t                     | n/t                |
| 333207  |           | 5                 | Brown Sandy Soil, Stones,                 | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 333208  |           | 6                 | Stones, tar                               | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |



## Method Summary

Report No.: 23-49330, issue number 1

| Parameter                               | Codes | Analysis Undertaken On | Date Tested | Method Number | Technique          |
|-----------------------------------------|-------|------------------------|-------------|---------------|--------------------|
| <b>Soil</b>                             |       |                        |             |               |                    |
| PAH (GC-MS)                             | N     | As submitted sample    | 03/08/2023  |               | GC-MS              |
| pH                                      | M     | Air dried sample       | 04/08/2023  | 113           | Electromeric       |
| Low range Aliphatic hydrocarbons soil   | N     | As submitted sample    | 04/08/2023  | 181           | GC-MS              |
| Low range Aromatic hydrocarbons soil    | N     | As submitted sample    | 04/08/2023  | 181           | GC-MS              |
| Aliphatic hydrocarbons in soil          | N     | As submitted sample    | 03/08/2023  | 214           | GC-FID             |
| Aliphatic/Aromatic hydrocarbons in soil | N     | As submitted sample    | 07/08/2023  | 214           | GC-FID             |
| Aromatic hydrocarbons in soil           | N     | As submitted sample    | 07/08/2023  | 214           | GC-FID             |
| Asbestos identification                 | U     | Air dried sample       | 03/08/2023  | 281           | Microscopy         |
| Aqua regia extractable metals           | M     | Air dried sample       | 04/08/2023  | 300           | ICPMS              |
| <b>Leachate</b>                         |       |                        |             |               |                    |
| Arsenic                                 | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Cadmium                                 | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Chromium                                | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Lead                                    | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Nickel                                  | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Copper                                  | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Zinc                                    | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Mercury                                 | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Selenium                                | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Antimony                                | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Barium                                  | N     |                        | 14/08/2023  | 301           | ICPMS              |
| Molybdenum                              | N     |                        | 14/08/2023  | 301           | ICPMS              |
| pH Value                                | N     |                        | 14/08/2023  | 113           | Electrometric      |
| Electrical Conductivity                 | N     |                        | 14/08/2023  | 136           | Probe              |
| Dissolved Organic Carbon                | N     |                        | 14/08/2023  | 102           | TOC analyser       |
| Chloride                                | N     |                        | 14/08/2023  | 270           | Ion Chromatography |
| Fluoride                                | N     |                        | 14/08/2023  | 270           | Ion Chromatography |
| Sulphate                                | N     |                        | 14/08/2023  | 270           | Ion Chromatography |
| Total Dissolved Solids                  | N     |                        | 14/08/2023  | 144           | Gravimetric        |
| Phenol index                            | N     |                        | 14/08/2023  | 121           | HPLC               |
| <b>WAC Solids analysis</b>              | N     |                        |             |               |                    |
| Total Organic Carbon                    | N     | Air dried sample       | 04/08/2023  | 210           | IR                 |
| Total BTEX                              | M     | As submitted sample    | 04/08/2023  | 181           | GCMS               |
| Mineral Oil (EH_CU_1D_Total)            | N     | As submitted sample    | 03/08/2023  | 117           | GCFID              |
| Total PCBs (7 congeners)                | N     | Air dried sample       | 04/08/2023  | 120           | GCMS               |
| Total (of 17) PAHs                      | N     | As submitted sample    | 04/08/2023  | 133           | GCFID              |

Tests marked N are not UKAS accredited

## Report Information

Report No.: 23-49330, issue number 1

### Key

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U   | hold UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| M   | hold MCERTS and UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| N   | do not currently hold UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ^   | MCERTS accreditation not applicable for sample matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| *   | UKAS accreditation not applicable for sample matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| S   | Subcontracted to approved laboratory UKAS Accredited for the test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SM  | Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NS  | Subcontracted to approved laboratory. UKAS accreditation is not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| I/S | Insufficient Sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| U/S | Unsuitable sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| n/t | Not tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <   | means "less than"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| >   | means "greater than"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| LOD | <p>LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.</p> <p>Soil sample results are expressed on an air dried basis (dried at &lt; 30°C), and are uncorrected for inert material removed.</p> <p>ELAB are unable to provide an interpretation or opinion on the content of this report. The results relate only to the sample received.</p> <p>PCB congener results may include any coeluting PCBs</p> <p>Uncertainty of measurement for the determinands tested are available upon request Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.</p> |

### Deviation Codes

|   |                                                          |
|---|----------------------------------------------------------|
| a | No date of sampling supplied                             |
| b | No time of sampling supplied (Waters Only)               |
| c | Sample not received in appropriate containers            |
| d | Sample not received in cooled condition                  |
| e | The container has been incorrectly filled                |
| f | Sample age exceeds stability time (sampling to receipt)  |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

### Sample Retention and Disposal

All soil samples will be retained for a period of one month  
 All water samples will be retained for 7 days following the date of the test report  
 Charges may apply to extended sample storage

### TPH Classification - HWOL Acronym System

|       |                                                                     |
|-------|---------------------------------------------------------------------|
| HS    | Headspace analysis                                                  |
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU    | Clean-up - e.g. by florisil, silica gel                             |
| 1D    | GC - Single coil gas chromatography                                 |
| Total | Aliphatics & Aromatics                                              |
| AL    | Aliphatics only                                                     |
| AR    | Aromatics only                                                      |
| 2D    | GC-GC - Double coil gas chromatography                              |
| #1    | EH_Total but with humics mathematically subtracted                  |
| #2    | EH_Total but with fatty acids mathematically subtracted             |
| _     | Operator - underscore to separate acronyms (exception for +)        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total  |
| MS    | Mass Spectrometry                                                   |



# **Appendix E**

## **Waste Carrier Licenses and Permits**

### **Statom Group Limited**

Statom House, 795 London Road, Grays, Essex, RM20 3LH

Tel: 01708 222 777

[www.statom.co.uk](http://www.statom.co.uk)

Registered in England and Wales

Company No: 8785228 VAT 177634867



# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

---

T J Transport Limited

Butser Hill Quarry

London Road

Buriton

East Hampshire

GU31 5SP

### **Permit number**

EPR/KB3305CU



# Butser Hill Quarry

## Permit number EPR/KB3305CU

### Introductory note

#### This introductory note does not form a part of the permit

The main features of the permit are as follows.

The use of suitable imported inert waste materials for the restoration of the site to create an area of land that will form an extension to the adjacent Queen Elizabeth Country Park (QECF). The site will be restored in a series of five phases where secondary aggregate recycling, chalk extraction and restoration by clean inert waste will take place simultaneously.

The restoration of the site will require approximately 1,149,000 tonnes of imported inert waste and 31,000 tonnes of topsoil. The site will accept up to 300,000 tonnes per annum (tpa).

The existing physical treatment activity associated with this site will be consolidated with the deposit for recovery activity into a single permit.

If you need to deploy mobile plant under a mobile plant permit at a site that is subject to a site based permit to enable you to complete the recovery activity, there will be inconsistencies between the requirements of the two permits and, in this situation, those of the site based permit prevail. Therefore you must be able to deliver the desired recovery activity through use of this permit alone, without relying upon the subsequent use of a separate mobile plant permit.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

| Status log of the permit          |                       |                                                                                                                            |
|-----------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------|
| Description                       | Date                  | Comments                                                                                                                   |
| Application<br>EPR/KB3305CU/A001  | Duly made<br>02/11/22 | Application for a deposit for recovery activity permit.                                                                    |
| Additional information received   | 16/01/23              | Waste Acceptance Procedure, Hydrogeological Risk Assessment, Stability Risk Assessment and Dust Emissions Management Plan. |
| Additional information received   | 24/03/23              | Waste Acceptance Procedure, Hydrogeological Risk Assessment and Stability Risk Assessment.                                 |
| Additional information received   | 06/04/23              | Hydrogeological Risk Assessment cross-section drawing.                                                                     |
| Permit determined<br>EPR/KB3305CU | 16/06/23              | Permit issued to T J Transport Limited.                                                                                    |

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/KB3305CU**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**T J Transport Limited** ("the operator"),

whose registered office is

**Charity Farm  
127 Wickham Road  
Fareham  
Hampshire  
PO17 5BP**

company registration number 02889704

to operate waste operations at

**Butser Hill Quarry  
London Road  
Buriton  
East Hampshire  
GU31 5SP**

to the extent authorised by and subject to the conditions of this permit.

| Name                  | Date              |
|-----------------------|-------------------|
| <b>Claire Roberts</b> | <b>16/06/2023</b> |

Authorised on behalf of the Environment Agency



# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## 2 Operations

### 2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1, table S1.1 (the 'activities').

### 2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

### 2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ('plan') specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **2.5 Waste acceptance**

- 2.5.1 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2, table S2.1;
  - (b) it has been identified as a suitable waste in the approved waste recovery plan;
  - (c) its chemical, physical and biological characteristics make it suitable for its intended use on the site; and
  - (d) it fulfils the approved waste acceptance criteria; and
  - (e) all the approved waste acceptance procedures have been completed; and
  - (f) it conforms to the description in the documentation supplied by the producer and holder; and
  - (g) It is not waste consisting solely or mainly of dusts, powders or loose fibres; and
  - (h) It is not hazardous wastes; and
  - (i) It is not waste in liquid form.
- 2.5.2 The operator shall:
- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the site and waste at the point of deposit; and
  - (b) be satisfied that the waste conforms to the requirements of condition 2.5.1.
- 2.5.3 The total quantity of waste that shall be deposited under the permit shall be limited by the final levels shown on the final levels contour plan referenced in schedule 1 table S1.2.

## **2.6 Site Engineering**

- 2.6.1 No construction of site engineering in the area for waste deposit shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.2 The construction of site engineering in the area for waste deposit shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or all the approved waste acceptance procedures have been completed; or



- (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.3 The operator shall submit a CQA Validation Report to the Environment Agency within 4 weeks following the construction of the area for deposit.
- 2.6.4 No waste shall be recovered in the area for waste deposit until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.6.5 No construction of site infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.6 The construction of the site infrastructure shall take place only in accordance with the approved construction proposals unless:
  - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.7 The operator shall submit a CQA Validation Report within 4 weeks following the construction of the site infrastructure.
- 2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.1 and 2.6.5 do not apply and the relevant site infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.6.9 For the purposes of conditions 2.6.1, 2.6.4 and 2.6.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of 4 weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
  - (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.6.10 Where the Environment Agency has required further information under condition 2.6.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
  - (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.

### **3 Emissions and monitoring**

#### **3.1 Emissions of substances not controlled by emission limits**

- 3.1.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.1.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

#### **3.2 Noise and vibration**

- 3.2.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the

operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### 3.3 Monitoring

3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) Groundwater specified in table S3.1; and
- (b) Ground gas specified in table S3.2.

3.3.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.3.3 The operator shall undertake a topographical survey of the site referenced to ordnance datum that shall be used to produce a plan of a scale adequate to show the surveyed features of the site:

- (a) prior to commencement of the recovery activity; and
- (b) on completion of the recovery activity to show final waste levels.

## 4 Information

### 4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made or, in the case of the following records, until permit surrender:
  - (i) off-site environmental effects;
  - (ii) matters which affect the condition of the land and groundwater;
  - (iii) waste types and quantities;
  - (iv) the results of groundwater monitoring; and
  - (v) the results of ground gas monitoring.

4.1.2 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery, origin and the identity of the carrier and producer of any



waste that is received for recovery. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

- 4.1.3 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

## **4.2 Reporting**

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2 ; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall submit the topographical survey plans required by condition 3.3.3 (a) and (b) to the Environment Agency within one month of the completion of the survey.

## **4.3 Notifications**

- 4.3.1 In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (a) inform the Environment Agency,
  - (b) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (c) take the measures necessary to prevent further possible incidents or accidents;
- 4.3.2 In the event of a breach of any permit condition the operator must immediately—
- (a) inform the Environment Agency, and
  - (b) take the measures necessary to ensure that compliance is restored within the shortest possible time.
- 4.3.3 In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.4 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.5 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.6 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.7 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.8 The operator shall notify the Environment Agency in writing:

- (a) at least 14 days before the commencement of the recovery activity;
- (b) within 14 days of completion of the recovery activity.

## **4.4 Interpretation**

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made 'immediately', in which case it may be provided by telephone.



# Schedule 1 – Operations

| Table S1.1 activities                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of activities for waste operations                                                                                                                    | Limits of activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>R13:</b> Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) | Secure storage of wastes listed in Table S2.1 for the purpose of recovery.<br><br>Storage of wastes listed in Table S2.1 shall be limited to three years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>R5:</b> Recycling/reclamation of other inorganic compounds                                                                                                     | Use of waste types specified in Table S2.1 for the purposes of construction work and/or restoration, reclamation or improvement of land.<br><br>The total quantity of waste used shall not exceed the amount needed to complete the recovery operation to the final levels in the approved Waste Recovery Plan.<br><br>The waste types accepted shall be limited to the waste types specified in Table S2.1, which are included in the approved Waste Recovery Plan.<br><br>Waste types 17 05 04 and 01 04 09 only (suitable clay or till) shall be used in the construction of the attenuation layer.<br><br>The activities shall be carried out in accordance with the approved Waste Recovery Plan. |
| <b>R10:</b> Land treatment resulting in benefit to agriculture or ecological improvement                                                                          | Use of waste to create a final growth layer.<br><br>Topsoils and peat (included for waste types 17 05 04 and 20 02 02) shall be used in R10 activities only. The use of these waste types shall be limited to the final 300mm of the scheme and shall be used to provide a growing medium only.                                                                                                                                                                                                                                                                                                                                                                                                        |

| Table S1.2 Operating techniques |                                                                                                                                                         |               |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Description                     | Parts                                                                                                                                                   | Date Received |
| Application                     | Approved Waste Recovery Plan document (reference: 416.00492.00050, Version 1, April 2020) in response to section 1c of Part B4 of the application form. | 26/03/21      |
| Application                     | Hydrogeological Risk Assessment document (reference: 416.00492.00050/HRA, Version 3, March 2023).                                                       | 24/03/23      |
| Application                     | Stability Risk Assessment (reference: 416.00492.00050, Version 1, August 2021).                                                                         | 24/03/23      |
| Application                     | Final levels contour plan (Final Restoration Scheme Illustrative Phase 5, Drawing 013, Revision 02, March 2021).                                        | 26/03/21      |
| Application                     | Waste acceptance criteria (Waste Acceptance Procedure, reference 416.00492.00050, Version 1 March 2023).                                                | 24/03/23      |

| Table S1.2 Operating techniques |                                                                                                                                      |               |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Description                     | Parts                                                                                                                                | Date Received |
| Application                     | Approved Dust Emissions Management Plan (reference: 416.00492.00050, Version 1, August 2021).                                        | 16/01/23      |
| Application                     | Agreement email, dated 06/06/23, to Environment Agency letter of advisories for Construction Quality Assurance Plan, dated 03/05/23. | 06/06/23      |

| Table S1.3 Improvement programme requirements |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Reference                                     | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Date     |
| IC1                                           | <p>The operator shall prepare a written report which shall include:</p> <ul style="list-style-type: none"> <li>• A full review of groundwater quality data for the substances and boreholes detailed in table S3.1;</li> <li>• The proposed amendments for borehole limits, specifically with regards to the groundwater control and compliance limits at New DG BH, shall be derived from a suitable number of monitoring rounds, to demonstrate the seasonal variations. Up hydraulic gradient quality data can also be included in the report; and</li> <li>• The electronic data showing derivation of amended limits.</li> </ul> <p>The Operator shall submit the report to the Environment Agency for the Environment Agency's written approval.</p> | 09/12/23 |



## Schedule 2 – Waste types, raw materials and fuels

| Table S2.1 Permitted waste types and quantities for use of waste in deposit for recovery |                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum quantity                                                                         | The total quantity of waste accepted at the site shall be less than 300,000 tonnes per year. The total quantity of waste to be accepted at the site shall not exceed 654,333 m <sup>3</sup>                                  |
| Waste code                                                                               | Description                                                                                                                                                                                                                  |
| <b>01</b>                                                                                | <b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>                                                                                                                 |
| <b>01 04</b>                                                                             | <b>wastes from physical and chemical processing of non-metalliferous minerals</b>                                                                                                                                            |
| 01 04 08                                                                                 | waste gravel and crushed rocks other than those containing dangerous substances                                                                                                                                              |
| 01 04 09                                                                                 | waste sand and clays                                                                                                                                                                                                         |
| <b>17</b>                                                                                | <b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>                                                                                                                                 |
| <b>17 01</b>                                                                             | <b>concrete, bricks, tiles and ceramics</b>                                                                                                                                                                                  |
| 17 01 01                                                                                 | concrete                                                                                                                                                                                                                     |
| 17 01 02                                                                                 | bricks                                                                                                                                                                                                                       |
| 17 01 03                                                                                 | tiles and ceramics                                                                                                                                                                                                           |
| 17 01 07                                                                                 | mixtures of concrete, bricks, tiles and ceramics                                                                                                                                                                             |
| <b>17 05</b>                                                                             | <b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>                                                                                                                                    |
| 17 05 04                                                                                 | soil and stones                                                                                                                                                                                                              |
| <b>19</b>                                                                                | <b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>                                               |
| <b>19 12</b>                                                                             | <b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>                                                                                        |
| 19 12 09                                                                                 | minerals (for example sand, stones) from the treatment of waste aggregates that are otherwise naturally occurring minerals - excludes fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard. |
| <b>20</b>                                                                                | <b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>                                                                               |
| <b>20 02</b>                                                                             | <b>garden and park wastes (including cemetery waste)</b>                                                                                                                                                                     |
| 20 02 02                                                                                 | soil and stones                                                                                                                                                                                                              |

## Schedule 3 – Emissions and monitoring

| Table S3.1 Groundwater – emission limits and monitoring requirements |                                                                                                                    |                        |                  |                                                 |                                                            |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------|------------------|-------------------------------------------------|------------------------------------------------------------|
| Monitoring point reference                                           | Parameter                                                                                                          | Limit (including unit) | Reference Period | Monitoring frequency                            | Monitoring standard or method                              |
| BH01, BH04 and new DG BH (down gradient)                             | Sulphate                                                                                                           | 75mg/l                 | Spot Sample      | Quarterly                                       | In accordance with; BS ISO 5667-11:2009, BS 6068-6.11:2009 |
|                                                                      | Nickel                                                                                                             | 0.005mg/l              |                  |                                                 |                                                            |
|                                                                      | Lead                                                                                                               | 0.004mg/l              |                  |                                                 |                                                            |
|                                                                      | Arsenic (III) and (V)                                                                                              | 0.005mg/l              |                  |                                                 |                                                            |
|                                                                      | Benzene                                                                                                            | 0.001mg/l              |                  |                                                 |                                                            |
| BH01, BH02, BH03, BH04 and new DG BH                                 | Groundwater level (mAOD), Electrical conductivity, Chloride, Ammoniacal nitrogen, pH                               | No limit               | Spot Sample      | Quarterly                                       | In accordance with; BS ISO 5667-11:2009, BS 6068-6.11:2009 |
|                                                                      | Total alkalinity Magnesium, Potassium, Calcium, Sodium, Chromium, Copper, Iron, Zinc, Manganese, Selenium, Cyanide | No limit               | Spot Sample      | Annually                                        |                                                            |
|                                                                      | Mercury, BTEX, Benzo(a)pyrene, PCBs, PAH's and Mineral Oil                                                         | No limit               | Spot Sample      | Annual for first 6 years then every 2 years     |                                                            |
| BH02 and BH03                                                        | Sulphate, Lead and Nickel                                                                                          | No limit               | Spot Sample      | Annually                                        | In accordance with; BS ISO 5667-11:2009, BS 6068-6.11:2009 |
|                                                                      | Arsenic and Benzene                                                                                                | No limit               | Spot Sample      | Annual for first six years then every two years |                                                            |

| Table S3.2 Ground gas - monitoring requirements                                |                                 |                      |                               |                      |
|--------------------------------------------------------------------------------|---------------------------------|----------------------|-------------------------------|----------------------|
| Location or description of point of measurement                                | Parameter                       | Monitoring frequency | Monitoring standard or method | Other specifications |
| All in-waste boreholes identified on Environmental Monitoring Plan, Drawing 07 | Methane, carbon dioxide, oxygen | Monthly              | -                             | -                    |

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

| <b>Table S4.1 Reporting of monitoring data</b>                                |                         |                                                 |
|-------------------------------------------------------------------------------|-------------------------|-------------------------------------------------|
| <b>Parameter</b>                                                              | <b>Reporting period</b> | <b>Period ends</b>                              |
| Groundwater monitoring<br>Parameters as required by<br>schedule 3, table S3.1 | Every 3 months          | 31 March, 30 June, 30 September, 31<br>December |
| Ground gas monitoring<br>Parameters as required by<br>schedule 3, table S3.2  | Every 3 months          | 31 March, 30 June, 30 September, 31<br>December |

| <b>Table S4.2 Reporting forms</b>           |                                                                                    |                     |
|---------------------------------------------|------------------------------------------------------------------------------------|---------------------|
| <b>Media/parameter</b>                      | <b>Reporting format</b>                                                            | <b>Date of form</b> |
| Groundwater                                 | Form Groundwater 1 or other form as agreed in writing<br>by the Environment Agency | 16/06/23            |
| Ground gas                                  | Form Gas 1 or other form as agreed in writing by the<br>Environment Agency         | 16/06/23            |
| Topographical surveys and<br>interpretation | Reporting format to be agreed in writing with the<br>Environment Agency            | -                   |



# Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

## Part A

|                                |  |
|--------------------------------|--|
| Permit Number                  |  |
| Name of operator               |  |
| Location of Facility           |  |
| Time and date of the detection |  |

|                                                                                                                                           |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment</b> |  |
| <b>To be notified within 24 hours of detection</b>                                                                                        |  |
| Date and time of the event                                                                                                                |  |
| Reference or description of the location of the event                                                                                     |  |
| Description of where any release into the environment took place                                                                          |  |
| Substances(s) potentially released                                                                                                        |  |
| Best estimate of the quantity or rate of release of substances                                                                            |  |
| Measures taken, or intended to be taken, to stop any emission                                                                             |  |
| Description of the failure or accident.                                                                                                   |  |

|                                                                                     |  |
|-------------------------------------------------------------------------------------|--|
| <b>(b) Notification requirements for the breach of a limit</b>                      |  |
| <b>To be notified within 24 hours of detection unless otherwise specified below</b> |  |
| Emission point reference/ source                                                    |  |
| Parameter(s)                                                                        |  |
| Limit                                                                               |  |
| Measured value and uncertainty                                                      |  |
| Date and time of monitoring                                                         |  |
| Measures taken, or intended to be taken, to stop the emission                       |  |

| Time periods for notification following detection of a breach of a limit |                     |
|--------------------------------------------------------------------------|---------------------|
| Parameter                                                                | Notification period |
|                                                                          |                     |
|                                                                          |                     |
|                                                                          |                     |

|                                                                                                                                                                                                                    |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment</b> |  |
| <b>To be notified within 24 hours of detection</b>                                                                                                                                                                 |  |
| Description of where the effect on the environment was detected                                                                                                                                                    |  |
| Substances(s) detected                                                                                                                                                                                             |  |
| Concentrations of substances detected                                                                                                                                                                              |  |
| Date of monitoring/sampling                                                                                                                                                                                        |  |

## Part B – to be submitted as soon as practicable

|                                                                                                                                                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Any more accurate information on the matters for notification under Part A.                                                                            |  |
| Measures taken, or intended to be taken, to prevent a recurrence of the incident                                                                       |  |
| Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission |  |
| The dates of any unauthorised emissions from the facility in the preceding 24 months.                                                                  |  |

|                  |  |
|------------------|--|
| <b>Name*</b>     |  |
| <b>Post</b>      |  |
| <b>Signature</b> |  |
| <b>Date</b>      |  |

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

‘accident’ means an accident that may result in pollution.

‘Annex I’ means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

‘Annex II’ means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

‘application’ means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

‘authorised officer’ means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

‘Construction Proposals’ means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the site or new phase of the site.

‘CQA Validation Report’ means the final ‘as built’ construction and engineering details of the area of the site for deposit or of the Site Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- ‘As-built’ plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the engineering of the site or new Phase of the site or Site Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

‘emissions of substances not controlled by emission limits’ means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

‘groundwater’ means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

‘List of Wastes’ means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

‘inert waste’ means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity



of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

‘No impact’ means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

‘quarter’ means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

‘R’ means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

‘Site infrastructure’ means any specified element of the:

- groundwater monitoring boreholes;
- ground gas monitoring boreholes;

within the site.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

‘Waste Framework Directive’ or ‘WFD’ means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

‘year’ means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, table S2.1, for that table, they have the meaning given below:

“hazardous substance” means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

“heavy metal” means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“PCBs” means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight.

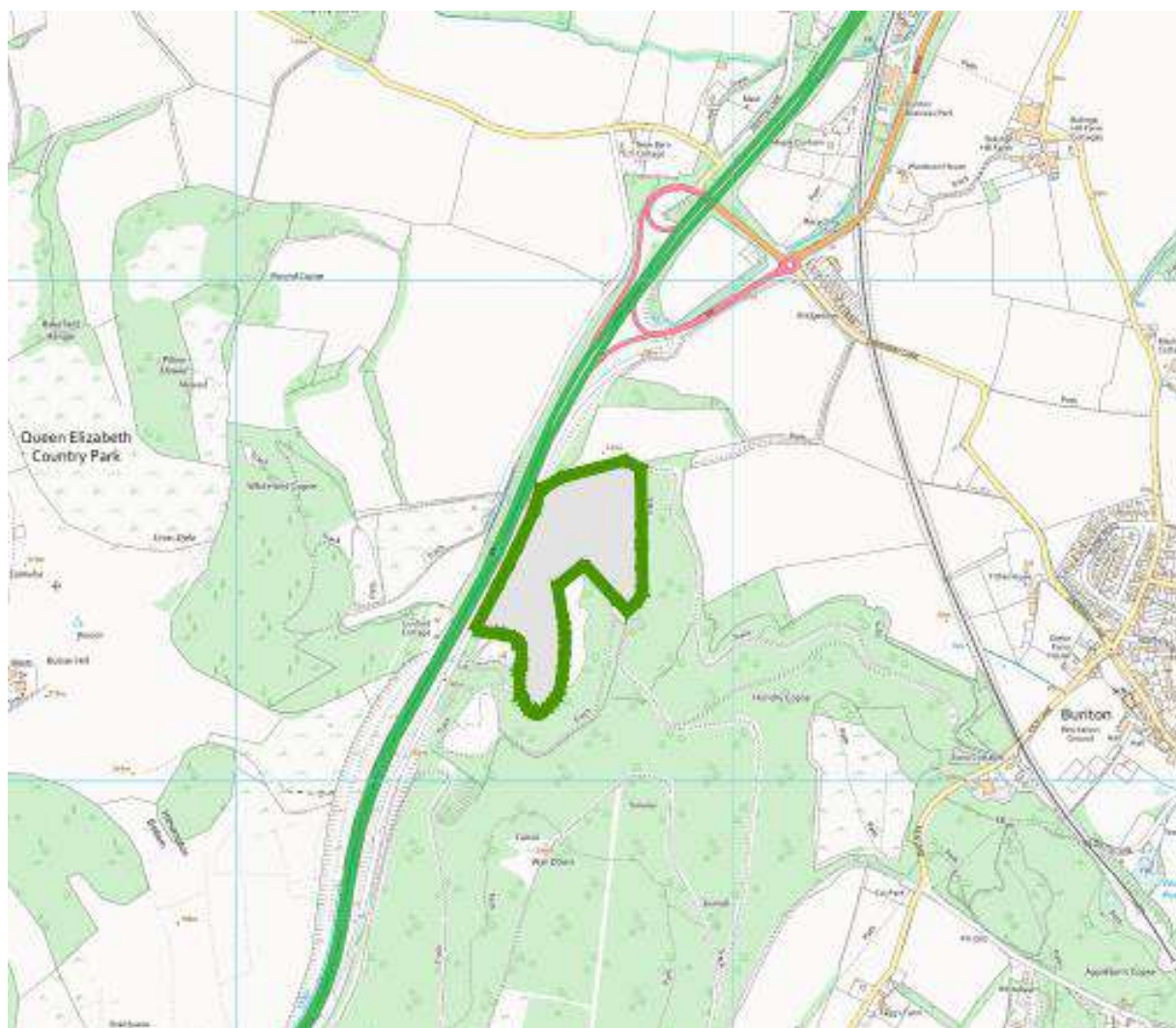
“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“stabilisation” means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste.

“solidification” means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste.

“partly stabilised wastes” means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

## Schedule 7 – Site plan





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END OF PERMIT



# Permit

The Environmental Permitting (England & Wales) Regulations 2010

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Mr Graham Moyse

Down Barn Farm Industrial Park  
Boarhunt Road  
Fareham  
Hampshire  
PO17 6AJ

Permit number  
EPR/MB3037AX

## Permit

The Environmental Permitting (England and Wales) Regulations 2010

## Permit

Permit number

**EPR/MB3037AX/A001**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

**Graham Moyse** ("the operator"),

of

**Greenhill Cottage,  
Spurlings Road,  
Fareham,  
Hampshire,  
PO17 6AA**

to operate the *waste operations* described in standard rules **SR2010No12** at

**Down Barn Farm Industrial Park  
Boarhunt Road  
Fareham  
Hampshire  
PO17 6AJ**

to the extent authorised by and subject to the conditions of this permit.

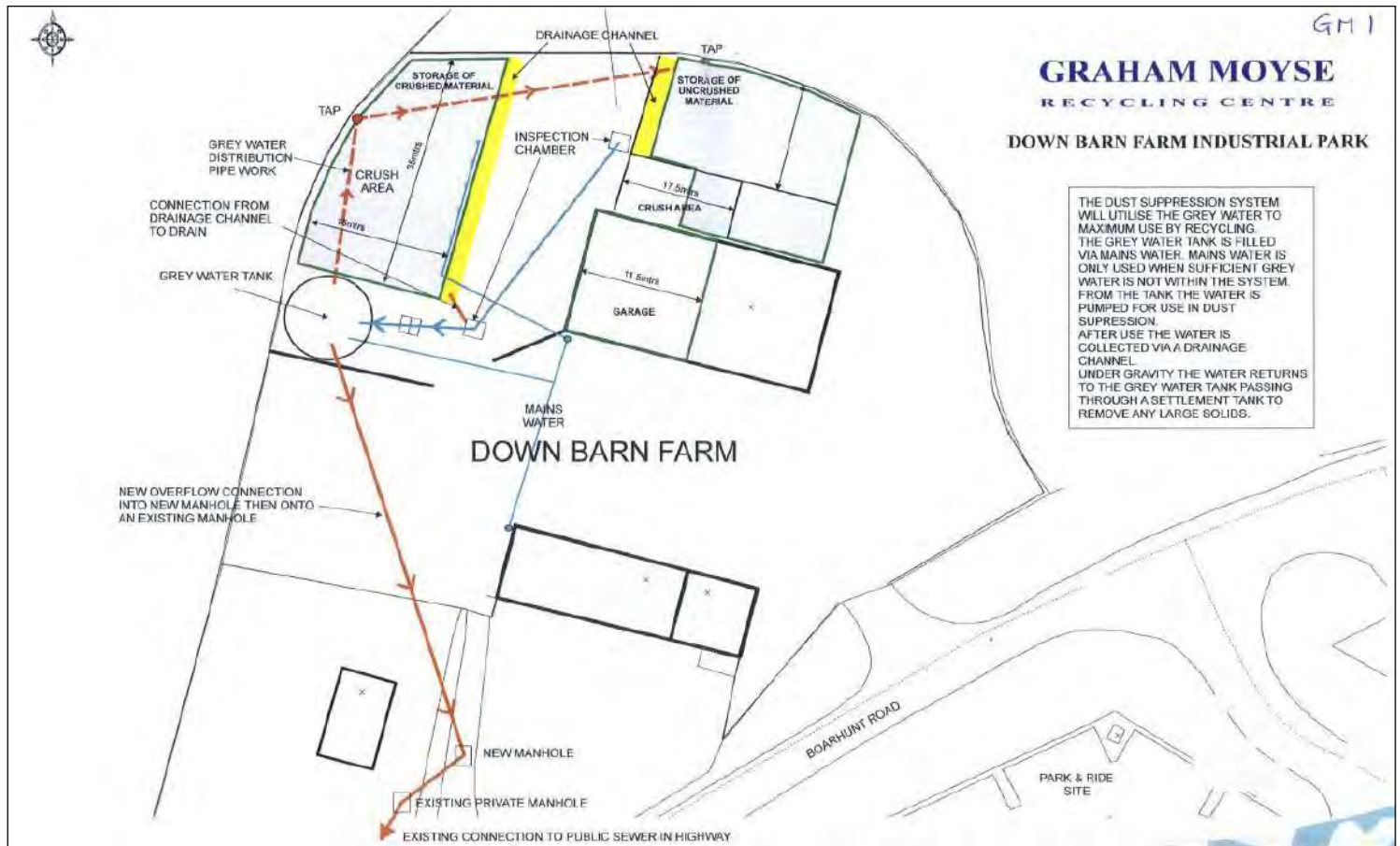
Under regulation 27(2) of the Regulations, standard rules **SR2010No12** are conditions of this permit.

| Name          | Date              |
|---------------|-------------------|
| Katie Harwood | <b>05/12/2012</b> |

Authorised on behalf of the Environment Agency

# Schedule 1 - Site plan

This is the plan referred to in the standard rules SR2010No12



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# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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T J Transport Limited  
Forest Lodge Inert Landfill  
Fawley Road  
Hythe  
Southampton  
S045 3NJ

### **Permit number**

EPR/FB3502MK

# Forest Lodge Inert Landfill

## Permit number EPR/FB3502MK

### Introductory note

#### This introductory note does not form a part of the permit

The main features of the permit are as follows.

This permit is for the deposition of 540,000 tonnes of Inert Waste at an average rate of 60,000 tonnes per annum. The deposition will follow the removal of 468,000 tonnes of soft sand, sharp sand and gravel. The infilling will be only primarily inert soils and stones, ceramic and bricks and concrete and will last a period of 10 years to ensure the restoration of the quarry. The site will be returned to agricultural use in fitting with its historic use as primarily cattle grazing before quarrying operations commenced.

The closest sensitive receptor is the Buttsash residential area located to the west of the site with the nearest properties 25m from the Fawley road. Other receptors include the Hythe to Calshot Marshes to the east and to the West of the site the New Forest SSSI, at the nearest distances of 1km and 355m respectively. Around 10m from the North East of the site is an ancient woodland and local wildlife site.

The bedrock geology of the site is Becton Sands overlain by superficial river terrace deposits classed as Secondary A aquifers with medium permeability. There are no direct discharges associated with permit activities.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

| Status log of the permit               |                       |                                                                                                                                                                                                                                                |
|----------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                            | Date                  | Comments                                                                                                                                                                                                                                       |
| Application<br>EPR/FB3502MK/A001       | Duly made<br>27/07/17 | Application for Inert Landfill                                                                                                                                                                                                                 |
| Additional information received        | 05/02/2018            | Schedule 5 No.1 relating to: <ul style="list-style-type: none"><li>• ESSD &amp; Hydrogeological Risk Assessment</li><li>• Stability Risk Assessment</li><li>• Landfill Gas Risk Assessment</li><li>• Noise and Dust Management Plans</li></ul> |
| Additional information received        | 11/03/2018            | Request for information further to Schedule 5 No.1 relating to: <ul style="list-style-type: none"><li>• Inert WAC</li><li>• Leachate Heads</li><li>• In-waste Boreholes</li></ul>                                                              |
| Additional information received        | 18/04/2018            | Schedule 5 No.2 relating to: <ul style="list-style-type: none"><li>• Surface Water Management</li><li>• Noise Management Plan</li></ul>                                                                                                        |
| Additional information received        | 08/06/2018            | Request for information further to Schedule 5 No.2 relating to: <ul style="list-style-type: none"><li>• Surface Water Management</li><li>• Noise Management Plan</li></ul>                                                                     |
| Permit determined<br>EPR/FB3502MK/A001 | 11/10/18              | Permit issued to T J Transport Limited.                                                                                                                                                                                                        |

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

**EPR/FB3502MK**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**T J Transport Limited** ("the operator"),

whose registered office is

**Rubis House 15 Friarn Street  
Bridgwater  
Somerset  
TA6 3LH**

company registration number 02889704

to operate waste operations at

**Forest Lodge Inert Landfill  
Fawley Road  
Hythe  
Southampton  
S045 3NJ**

to the extent authorised by and subject to the conditions of this permit.

| Name                    | Date              |
|-------------------------|-------------------|
| <b>Samantha Haddock</b> | <b>11/10/2018</b> |

Authorised on behalf of the Environment Agency



# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Environment Agency dated **11/10/2018** shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 1.2.1; and
  - (c) the estimated costs for the closure and aftercare of the landfill.

### 1.3 Avoidance, recovery and disposal of wastes produced by the activities

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
  - (b) review and record at least every four years whether changes to those measures should be made; and
  - (c) take any further appropriate measures identified by a review.

## 2 Operations

### 2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1, table S1.1 (the “activities”).

## **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

## **2.3 Operating techniques**

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2, or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **2.5 Landfill Engineering**

- 2.5.1 (a) No construction of any new cell or development area shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- (b) The operator shall review the construction proposals every 12 months.
- 2.5.2 The construction of a new cell or development area shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
- (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.3 The operator shall prepare a CQA Validation Report to cover every six month period of construction of the development area. The operator shall submit the CQA validation report to the Environment Agency within 4 weeks following construction of the development area.
- 2.5.4 No disposal of waste shall take place in a new cell or development area until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

- (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.7 The operator shall submit a CQA Validation Report within 4 weeks of the completion of the landfill infrastructure.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.1 and 2.5.5 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.5.9 For the purposes of conditions 2.5.1, 2.5.4 and 2.5.5 the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
  - (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.5.10 Where the Environment Agency has required further information under condition 2.5. 8(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
  - (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.

## **2.6 Waste acceptance**

- 2.6.1 Wastes shall only be accepted for disposal if:
  - (a) they are listed in schedule 2, table S2.1; and
  - (b) they are inert waste; and
  - (c) they are not liquid waste (including waste waters but excluding sludge); and
  - (d) all the relevant waste acceptance procedures have been completed; and
  - (e) they fulfil the relevant waste acceptance criteria; and
  - (f) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria; and
  - (g) they are wastes which have been treated, except for wastes for which treatment is not technically feasible.
- 2.6.2 The operator shall:
  - (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
  - (b) be satisfied that the waste conforms to the requirements of condition 2.6.1.
- 2.6.3 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.6.4 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.6.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing DRAWING 011.
- 2.6.6 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1, table S1.4.
- 2.6.7 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or restoration and of the identity of the producer, or in the case of municipal waste and



multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

## **2.7 Closure and aftercare**

2.7.1 The operator shall maintain a closure and aftercare management plan.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

3.1.1 The limits in schedule 3 shall not be exceeded.

3.1.2 Where a substance is specified in schedule 3, but no limit is set for it, the concentration of such substance in emissions from the site shall be no greater than the background concentration.

3.1.3 The operator shall prevent the input of any hazardous substances from the activities into groundwater.

3.1.4 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:

- (a) between nine and six months prior to the sixth anniversary of the granting of the permit; and
- (b) between nine and six months prior to every subsequent six years after the sixth anniversary of the granting of the permit.

### **3.2 Emissions of substances not controlled by emission limits**

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.3 Noise and vibration**

3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

### **3.4 Monitoring**

3.4.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:

- (a) Groundwater specified in tables S3.1 and S3.3;

- (b) Landfill gas specified in table S3.2;
- 3.4.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.4.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
  - (a) annually; and
  - (b) prior to the disposal of waste in any new cell or new development area of the landfill; and
  - (c) following closure of the landfill or part of the landfill.

## **4 Information**

### **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
  - (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) the results of groundwater monitoring;
    - (ii) landfill gas monitoring;
    - (iii) waste types and quantities.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

### **4.2 Reporting**

- 4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency. The report(s) shall include as a minimum:
  - (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this activity and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
  - (b) the topographical surveys required by condition 3.4.3 other than those submitted as part of a CQA validation report;
  - (c) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;

- (d) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
  - (e) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey; and
  - (f) a plan(s) ('the monitoring point plan – MPP') showing the locations of all monitoring points.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
  - (b) for the reporting periods specified in schedule 4, table S4.1 and using the forms specified in schedule 4, table S4.2 or other reporting format as agreed in writing with the Environment Agency; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

## 4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and



- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

## **4.4 Interpretation**

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

## Schedule 1 – Operations

| Table S1.1 activities                                               |                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of specified activity and WFD Annex I and II operations | Limits of activities                                                                                                                                                                                                                                                                                                                                                          |
| D1: Deposit into or on to land                                      | <p>The deposit of inert waste into or onto land specified in Table S2.1 for disposal.</p> <p>Waste shall be stored for no longer than 1 year prior to disposal.</p> <p>The quantity of inert waste deposited in the landfill in any year shall not exceed the limits in table S1.4.</p> <p>The total quantity of inert waste deposited in the landfill is 540,000 tonnes.</p> |
| R5: Recycling/reclamation of other inorganic compounds              | Recovery of waste in landfill engineering in accordance with condition 2.5                                                                                                                                                                                                                                                                                                    |

| Table S1.2 Operating techniques |                                                                                                                                                     |               |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Description                     | Parts                                                                                                                                               | Date Received |
| Application                     | Forest Lodge Inert Landfill<br>Conceptual Site Model, Environmental Setting and Site Design (ESSD) Report<br>Section 4.0 Pollution Control Measures | 27/07/2017    |
| Application                     | Forest Lodge Inert Landfill<br>ENVIRONMENTAL PERMIT<br>BOUNDARY AND PHASING PLAN<br>Drawing 002.<br><br>Forest Lodge Inert Landfill                 | 27/07/2017    |

|                                                                                                                                                                                                                        |                                                                                                                                              |            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                                                                                                                                                                                                                        | ENVIRONMENTAL MONITORING<br>Drawing 007                                                                                                      |            |
| Application                                                                                                                                                                                                            | TJ Transport Limited<br>Forest Lodge Inert Landfill<br>Environmental Permit (EP) Application: Waste Acceptance Procedure                     | 27/07/2018 |
| Response to Schedule 5 Notice dated 21/12/17<br><br>“TJ TRANSPORT LIMITED – FOREST LODGE INERT LANDFILL, ENVIRONMENTAL PERMIT APPLICATION – SCHEDULE 5 NOTICE RESPONSE” Response to Schedule 5 Notice dated 21/12/2017 | Response to Question 10. Document title “Forest Lodge Landfill Dust Management Plan”<br>Dated Feb 2018                                       | 05/03/2018 |
|                                                                                                                                                                                                                        | Response to Question 9. Document title “Forest Lodge Landfill Noise Management Plan”<br>Dated Feb 2018                                       | 08/06/2018 |
|                                                                                                                                                                                                                        | STABILITY RISK ASSESSMENT<br><br>Question 1<br><br>Table 2-7 Geotechnical Design Parameters, and chemical composition and leaching behaviour | 05/02/2018 |
| Response to email dated 08/05/2018<br><br>“TJ TRANSPORT LIMITED – FOREST LODGE INERT LANDFILL, ENVIRONMENTAL PERMIT APPLICATION – SCHEDULE 5 NOTICE RESPONSE, FURTHER INFORMATION”                                     | Surface Water Management Plan,<br><br>Document Titled “Forest Lodge Home Farm Surface Water Management Plan”<br><br>Dated March 2017.        | 08/06/2018 |
| Application                                                                                                                                                                                                            | FOREST LODGE INERT LANDFILL – ENVIRONMENTAL PERMIT APPLICATION – RESTORATION – DRAWING 005 -                                                 | 27/07/2017 |

| Table S1.3 Improvement programme requirements |                                                                                                                                                                                    |                           |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Reference                                     | Requirement                                                                                                                                                                        | Date                      |
| 1                                             | The operator shall install in-waste gas monitoring points at a minimum density of 2 points per hectare after each phase of development as agreed in “TJ TRANSPORT LIMITED – FOREST | On completion of the cell |



| Table S1.3 Improvement programme requirements |                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Reference                                     | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                 | Date |
|                                               | <p>LODGE INERT LANDFILL, ENVIRONMENTAL PERMIT APPLICATION – SCHEDULE 5 NOTICE RESPONSE – FURTHER CLARIFICATIONS”</p> <p>The landfill gas monitoring boreholes shall be constructed and recorded in accordance with a Construction Quality Assurance (CQA) Plan covering all elements of the landfill gas monitoring system. The proposal shall be in accordance with Environment Agency Guidance: LFTGN03 'Management of Landfill Gas'.</p> |      |

| Table S1.4 Annual waste input limits |                    |
|--------------------------------------|--------------------|
| Category                             | Limit Tonnes/ Year |
| Inert Waste for disposal             | 60,000             |

## Schedule 2 – List of permitted waste

| <b>Table S2.1 Permitted waste types for disposal at landfill for inert waste</b><br><b>The total quantity of waste accepted at the site for the above activity shall be less than 540, 000 tonnes.</b> |                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Waste code                                                                                                                                                                                             | Description                                                                                                           |
| <b>01</b>                                                                                                                                                                                              | <b>Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals</b>          |
| <b>01 01</b>                                                                                                                                                                                           | <b>wastes from mineral excavation</b>                                                                                 |
| 01 01 02                                                                                                                                                                                               | wastes from mineral non-metalliferous excavation                                                                      |
| <b>01 03</b>                                                                                                                                                                                           | <b>wastes from physical and chemical processing of metalliferous minerals</b>                                         |
| 01 03 06                                                                                                                                                                                               | tailings other than those mentioned in 01 03 04 and 01 03 05                                                          |
| <b>01 04</b>                                                                                                                                                                                           | <b>wastes from physical and chemical processing of non-metalliferous minerals</b>                                     |
| 01 04 08                                                                                                                                                                                               | waste gravel and crushed rocks other than those mentioned in 01 04 07                                                 |
| 01 04 09                                                                                                                                                                                               | waste sand and clays                                                                                                  |
| 01 04 12                                                                                                                                                                                               | tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11** |
| <b>10</b>                                                                                                                                                                                              | <b>Wastes from thermal processes</b>                                                                                  |
| <b>10 01</b>                                                                                                                                                                                           | <b>Waste from power station and other combustion</b>                                                                  |
| 10 01 01                                                                                                                                                                                               | bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)                                        |
| <b>10 11</b>                                                                                                                                                                                           | <b>wastes from manufacture of glass and glass products</b>                                                            |
| 10 11 03                                                                                                                                                                                               | waste glass-based fibrous materials (only without organic binders)                                                    |
| <b>10 12</b>                                                                                                                                                                                           | <b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>                              |
| 10 12 08                                                                                                                                                                                               | waste ceramics, bricks, tiles and construction products (after thermal processing)                                    |
| <b>15</b>                                                                                                                                                                                              | <b>Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified</b>   |
| <b>15 01</b>                                                                                                                                                                                           | <b>packaging (including separately collected municipal packaging waste)</b>                                           |
| 15 01 07                                                                                                                                                                                               | glass packaging                                                                                                       |
| <b>17</b>                                                                                                                                                                                              | <b>Construction and demolition wastes (excluding excavated soil from contaminated sites)</b>                          |
| <b>17 01</b>                                                                                                                                                                                           | <b>concrete, bricks, tiles and ceramics</b>                                                                           |
| 17 01 01                                                                                                                                                                                               | Concrete <sup>2</sup>                                                                                                 |
| 17 01 02                                                                                                                                                                                               | bricks <sup>2</sup>                                                                                                   |
| 17 01 03                                                                                                                                                                                               | tiles and ceramics <sup>2</sup>                                                                                       |
| 17 01 07                                                                                                                                                                                               | mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06 <sup>2</sup>                  |
| <b>17 02</b>                                                                                                                                                                                           | <b>wood, glass and plastic</b>                                                                                        |
| 17 02 02                                                                                                                                                                                               | glass                                                                                                                 |
| <b>17 05</b>                                                                                                                                                                                           | <b>soil (excluding excavated soil from contaminated sites), stones and dredging spoil</b>                             |
| 17 05 04                                                                                                                                                                                               | Soil and stones <sup>1</sup>                                                                                          |
| <b>17 09</b>                                                                                                                                                                                           | <b>other construction and demolition wastes</b>                                                                       |

|              |                                                                                                                                                                                |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17 09 04     | mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03***                                                                      |
| <b>19</b>    | <b>Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use</b> |
| <b>19 12</b> | <b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified excluding Trommell fines</b>                 |
| 19 12 05     | glass                                                                                                                                                                          |
| 19 12 09     | Minerals (for example sand, stones)                                                                                                                                            |
| <b>20</b>    | <b>Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions</b>                                 |
| <b>20 01</b> | <b>separately collected fractions (except 15 01)</b>                                                                                                                           |
| 20 01 02     | Glass (separately collected glass only)                                                                                                                                        |
| <b>20 02</b> | <b>garden and park wastes (excluding cemetery waste)</b>                                                                                                                       |
| 20 02 02     | soil and stones excluding top soil and peat                                                                                                                                    |

1. For the purposes of waste acceptance, soil includes naturally occurring sands and clays.

2. Selected construction and demolition waste (C & D waste): with low contents of other types of materials (like metals, plastic, organics, wood, rubber, etc.). The origin of the waste must be known.

- No C&D waste from buildings, polluted with inorganic or organic dangerous substances e.g. because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances, etc., unless it is made clear that the demolished building was not significantly polluted.

- No C&D waste from buildings, treated, covered or painted with materials, containing dangerous substances in significant amounts.

\* These wastes will be tested if there is any suspicion of contamination.

\*\* For example silt from dig out of mineral silt ponds

\*\*\* Comprising a mixture of concrete, bricks, tiles, ceramics, glass, soils & stones eg from uncontaminated areas



## Schedule 3 – Emissions and monitoring

| Table S3.1 Groundwater – emission limits and monitoring requirements                        |           |                        |                  |                      |                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------|-----------|------------------------|------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring point reference                                                                  | Parameter | Limit (including unit) | Reference Period | Monitoring frequency | Monitoring standard or method                                                                                                                                                                                                                                                                                     |
| GROUNDWATER MONITORING BOREHOLE LOCATION GWP02 and GWP04 (as shown in Schedule 7 Site Plan) | Arsenic   | 0.005mg/l              | Spot Sample      | Quarterly            | As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (June 2014), <u><a href="#">risk assessments for your environmental permit (www.gov.uk)</a></u> , or such other subsequent guidance as may be agreed in writing with the Environment Agency. |
|                                                                                             | Cadmium   | 0.001mg/l              |                  |                      |                                                                                                                                                                                                                                                                                                                   |
|                                                                                             | Mercury   | 0.0001mg/l             |                  |                      |                                                                                                                                                                                                                                                                                                                   |
|                                                                                             | Chloride  | 152mg/l                |                  |                      |                                                                                                                                                                                                                                                                                                                   |
|                                                                                             | Nickel    | 0.012mg/l              |                  |                      |                                                                                                                                                                                                                                                                                                                   |
|                                                                                             | Sulphate. | 100mg/l                |                  |                      |                                                                                                                                                                                                                                                                                                                   |

| Table S3.2 Landfill gas in-waste monitoring boreholes – limits and monitoring requirements |                      |                         |                      |                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------|----------------------|-------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring point Ref. /description                                                         | Parameter            | Limit (including units) | Monitoring frequency | Monitoring standard or method                                                                                                                                                                                                                                                                            |
| All in waste gas monitoring boreholes G1-G12 (as shown in Schedule 7 Site Plan)            | Methane              | No limit                | Quarterly            | <p>As specified in Environment Agency Guidance LFTGN03 'Guidance on the management of landfill gas' (June 2014) or such other subsequent guidance as may be agreed in writing with the Environment Agency.</p> <p>Record whether the ground is:</p> <p>waterlogged</p> <p>frozen</p> <p>snow covered</p> |
|                                                                                            | Carbon Dioxide       | No limit                |                      |                                                                                                                                                                                                                                                                                                          |
|                                                                                            | Oxygen               | No limit                |                      |                                                                                                                                                                                                                                                                                                          |
|                                                                                            | Relative Pressure    | No limit                |                      |                                                                                                                                                                                                                                                                                                          |
|                                                                                            | Flow                 | No limit                |                      |                                                                                                                                                                                                                                                                                                          |
|                                                                                            | Meteorological Data  | No limit                |                      |                                                                                                                                                                                                                                                                                                          |
| One per visit                                                                              | Atmospheric Pressure | No limit                | Quarterly            |                                                                                                                                                                                                                                                                                                          |

| Table S3.3 Groundwater – other monitoring requirements           |                                                                                                                                 |                      |                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring Point Ref./Description                                | Parameter                                                                                                                       | Monitoring frequency | Monitoring standard or method                                                                                                                                                                                                                                                                                                     |
| GWP01, GWPO2, GWPO4 and GWPO5 (as shown in Schedule 7 Site Plan) | Water Level,                                                                                                                    | Monthly              | As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (June 2014), <u>risk assessments for your environmental permit (<a href="http://www.gov.uk">www.gov.uk</a>)</u> , or such other subsequent guidance as may be agreed in writing with the Environment Agency. |
|                                                                  | Temperature, Ph, Electrical Conductivity, Ammoniacal Nitrogen, Chloride, Arsenic, Cadmium Mercury, Nickel, Sulphate TOC and TON | Quarterly            |                                                                                                                                                                                                                                                                                                                                   |
|                                                                  | Total Alkalinity, Magnesium,, Calcium, Sodium, Chromium, Copper, Iron, Lead, Nickel, Zinc, Manganese, Potassium                 | Annually             |                                                                                                                                                                                                                                                                                                                                   |
|                                                                  | Hazardous substances detected in leachate                                                                                       | Annually             |                                                                                                                                                                                                                                                                                                                                   |
|                                                                  | Base of monitoring point (mAoD)                                                                                                 | Annually             |                                                                                                                                                                                                                                                                                                                                   |

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

| <b>Table S4.1 Reporting of monitoring data</b>                                 |                         |                                              |
|--------------------------------------------------------------------------------|-------------------------|----------------------------------------------|
| <b>Parameter</b>                                                               | <b>Reporting period</b> | <b>Period ends</b>                           |
| Emission to groundwater<br>As specified by schedule 3, table S3.1              | Every 3 months          | 31 March, 30 June, 30 September, 31 December |
| Landfill gas in monitoring boreholes<br>As specified by schedule 3, table S3.2 | Every 3 months          | 31 March, 30 June, 30 September, 31 December |
| Other groundwater monitoring<br>As specified by schedule 3, table S3.3         | Every 3 months          | 31 March, 30 June, 30 September, 31 December |

\* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

| <b>Table S4.2 Reporting Forms</b>                 |                                                                                                   |                     |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------|
| <b>Media/parameter</b>                            | <b>Reporting Format</b>                                                                           | <b>Date of Form</b> |
| Groundwater                                       | Form Groundwater 1, or other reporting format to be agreed in writing with the Environment Agency | <b>11/10/2018</b>   |
| Landfill gas                                      | Form LFG 1, or other reporting format to be agreed in writing with the Environment Agency         | <b>11/10/2018</b>   |
| Waste Return                                      | E-waste Return Form                                                                               | -                   |
| Landfill topographical surveys and interpretation | Reporting format to be agreed in writing with the Environment Agency                              | <b>11/10/2018</b>   |



## Schedule 5 – Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

### Part A

|                                |  |
|--------------------------------|--|
| Permit Number                  |  |
| Name of operator               |  |
| Location of Facility           |  |
|                                |  |
| Time and date of the detection |  |

|                                                                                                                                           |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment</b> |  |
| <b>To be notified within 24 hours of detection</b>                                                                                        |  |
| Date and Time of the event                                                                                                                |  |
| Reference or description of the location of the event                                                                                     |  |
| Description of where any release into the environment took place                                                                          |  |
| Substances(s) potentially released                                                                                                        |  |
| Best estimate of the quantity or rate of release of substances                                                                            |  |
| Measures taken, or intended to be taken, to stop any emission                                                                             |  |
| Description of the failure or accident.                                                                                                   |  |

|                                                                                     |  |
|-------------------------------------------------------------------------------------|--|
| <b>(b) Notification requirements for the breach of a limit</b>                      |  |
| <b>To be notified within 24 hours of detection unless otherwise specified below</b> |  |
| Emission point reference/ source                                                    |  |
| Parameter(s)                                                                        |  |
| Limit                                                                               |  |
| Measured value and uncertainty                                                      |  |
| Date and time of monitoring                                                         |  |

|                                                                                     |  |
|-------------------------------------------------------------------------------------|--|
| <b>(b) Notification requirements for the breach of a limit</b>                      |  |
| <b>To be notified within 24 hours of detection unless otherwise specified below</b> |  |
| Measures taken, or intended to be taken, to stop the emission                       |  |

|                                                                                 |                            |
|---------------------------------------------------------------------------------|----------------------------|
| <b>Time periods for notification following detection of a breach of a limit</b> |                            |
| <b>Parameter</b>                                                                | <b>Notification period</b> |
|                                                                                 |                            |
|                                                                                 |                            |

|                                                                                                                                                                                                                    |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>(c) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment</b> |  |
| <b>To be notified within 24 hours of detection</b>                                                                                                                                                                 |  |
| Description of where the effect on the environment was detected                                                                                                                                                    |  |
| Substances(s) detected                                                                                                                                                                                             |  |
| Concentrations of substances detected                                                                                                                                                                              |  |
| Date of monitoring/sampling                                                                                                                                                                                        |  |

## Part B to be supplied as soon as practicable

|                                                                                                                                                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Any more accurate information on the matters for notification under Part A.                                                                            |  |
| Measures taken, or intended to be taken, to prevent a recurrence of the incident                                                                       |  |
| Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission |  |
| The dates of any unauthorised emissions from the facility in the preceding 24 months.                                                                  |  |

|                  |  |
|------------------|--|
| <b>Name*</b>     |  |
| <b>Post</b>      |  |
| <b>Signature</b> |  |
| <b>Date</b>      |  |

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“Accident” means an accident that may result in pollution.

“Annually” means once every year.

“Application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“Authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“Background concentration” means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.

“Construction Proposals” means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“Emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“Emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“Exceeded” means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

“Groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.



“Hazardous substances” as defined by the Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154, schedule 22 and listed in our risk assessment guidance.

“Inert waste” means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

“Landfill infrastructure” means any specified element of the:

- Artificially established geological barrier;
- surface water drainage systems;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“Liquids” means any liquid other than leachate.

“MPP” Monitoring point plan, required to specify routine monitoring locations.

“No impact” means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

“Previous year” means the 12 month period preceding the month the annual report is submitted in.

“Quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“Relevant waste acceptance criteria” means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

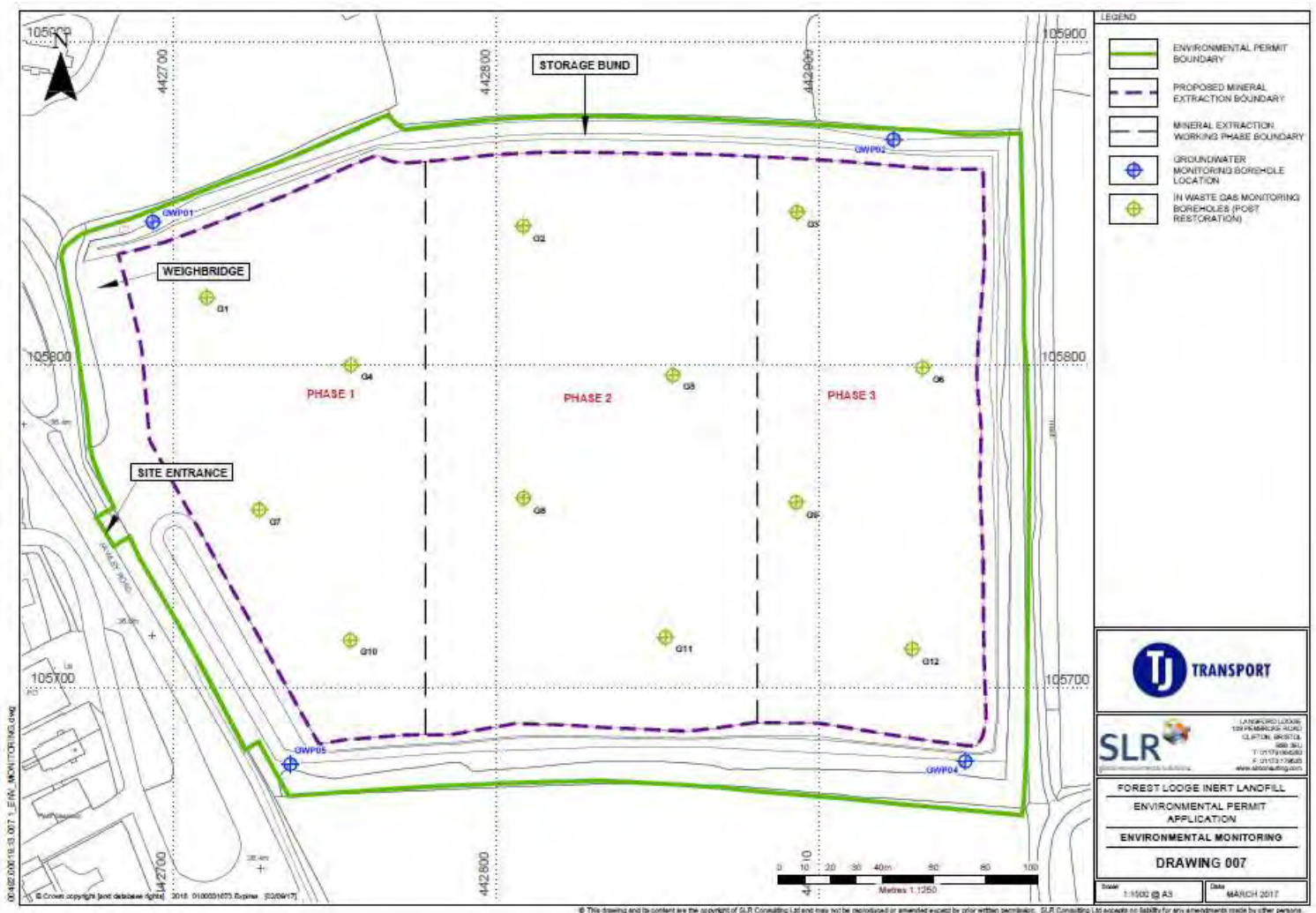
“Relevant waste acceptance procedures” means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“Review of the Hydrogeological Risk Assessment” means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

“Waste code” – See “List of Wastes”.

“WFD” means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

# Schedule 7 – Site plan



END OF PERMIT





## **Standard rules SR2010No12**

### **Treatment of waste to produce soil, soil substitutes and aggregate**

#### **Introductory note**

This introductory note does not form part of these standard rules.

When referred to in an environmental permit, these standard rules will allow the operator to store waste at a specified location and treat it to produce soil, soil substitutes and aggregate. Permitted wastes do not include hazardous wastes. The total quantity of waste that can be stored and subsequently treated at the site under these standard rules shall be no more than 75,000 tonnes per year. These standard rules do not permit the burning of any wastes, either in the open, inside buildings or in any form of incinerator.

The permitted activities shall not be carried out within 500 metres of a European Site<sup>1</sup>, Ramsar site or a Site of Special Scientific Interest (SSSI) nor within a specified Air Quality Management Area (AQMA)<sup>2</sup>. The permitted activities shall not be within:

- 10 metres of any watercourse;
- 50 metres from any spring or well, or from any borehole not used to supply water for domestic or food production purposes; and
- 50 metres from any well, spring or from any borehole used for the supply of water for human consumption. This must include private water supplies.
- 250metres within the presence of Great Crested Newts, where it is linked to the breeding ponds of the newts by good habitat;
- 50 metres of a site that has relevant species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity.:.
  - 50 metres of a National Nature Reserve (NNR), Local Nature Reserves(LNR), Local Wildlife Site (LWS), Ancient woodland or Scheduled Ancient Monument.

These standard rules do not allow any point source emission into surface waters or groundwater. However, under the emissions of substances not controlled by emission limits rule:

- Liquids may be discharged into a foul sewer subject to a consent issued by the local water company.

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<sup>1</sup> A candidate or Special Area of Conservation (cSAC or SAC) and proposed or Special Protection Area (pSPA or SPA) in England and Wales.

<sup>2</sup> An Air Quality Management Area within the meaning of the Environment Act 1995 which has been designated due to concerns about particulate matter in the form of PM10.

- Liquids may be taken off-site in a tanker for disposal or recovery.
- Clean surface water from roofs, or from areas of the site that are not being used in connection with storing and treating waste, may be discharged directly to surface waters, or to groundwater by seepage through the soil via a soakaway.

**End of introductory note**

# Rules

## 1 – Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with rule 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in these standard rules shall have convenient access to a copy of them kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## 2 – Operations

### 2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the operations specified in table 2.1 below (“the activities”).



| Table 2.1 Activities                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of activities                                                                                                                                                                                                                                 | Limits of activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>R13:</b> Storage of wastes pending the operations numbered R3 and R5.</p> <p><b>R3:</b> recycling or reclamation of organic substances which are not used as solvents.</p> <p><b>R5:</b> Recycling or reclamation of other inorganic materials.</p> | <p>Treatment of wastes listed in table 2.3 consisting only of sorting, separation, screening, crushing and blending of waste for recovery as a soil, soil substitute or aggregate.</p> <p>Secure storage of wastes listed in table 2.3 pending treatment.</p> <p>Storage of wastes listed in table 2.4 shall not exceed 10,000 tonnes in total at any one time.</p> <p>All other wastes stored shall not exceed 40,000 tonnes in total at any one time.</p> <p>No more than 75,000 tonnes of waste shall be treated per year.</p> <p>Treatment of slags and ashes for disposal shall not exceed 50 tonnes per day, or if for a mix of recovery and disposal shall not exceed 75 tonnes per day.</p> |

## 2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan attached to the permit.
- 2.2.2 The activities shall not be carried out within:
- (a) 500 metres of a European Site or Site of Special Scientific Interest (SSSI);
  - (b) 10 metres of any watercourse;
  - (c) 50 metres of any spring or well, or any borehole not used to supply water for domestic or food production purposes;
  - (d) a specified AQMA.
  - (e) 50 metres from any well, spring or from any borehole used for the supply of water for human consumption. This must include private water supplies.
  - (f) 250metres within the presence of Great Crested Newts where it is linked to the breeding ponds of the newts by good habitat;
  - (g) 50 metres of a site that has species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity;.
  - (h) 50 metres of a National Nature Reserve (NNR), Local Nature Reserves(LNR), Local Wildlife Site (LWS), Ancient woodland or Scheduled Ancient Monument.

## 2.3 Waste acceptance

- 2.3.1 Waste shall only be accepted if:
- (a) it is of a type listed in table 2.3 of these standard rules;
  - (b) it conforms to the description in the documentation supplied by the producer and holder;

- (c) its chemical, physical and biological characteristics make it suitable for its intended treatment;
- (d) any excavated soil from potentially contaminated sites has been shown by prior chemical analysis and assessment to be suitable for the intended use without significant risk of pollution; and
- (e) it is visually inspected on arrival and before it enters the treatment process to ensure that it complies with these standard rules.

2.3.2. Any waste that does not comply with 2.3.1 shall be rejected and shall be;

- (a) removed from the site; or
- (b) moved to a designated quarantine area pending removal.

2.3.3 Records demonstrating compliance with rule 2.3 (including analysis and assessment of any excavated soil from potentially contaminated sites) shall be maintained.

| <b>Table 2.3 Waste types</b>                                                                                                                                                                                                                                    |                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Exclusions</b>                                                                                                                                                                                                                                               |                                                                                                                           |
| <b>Wastes having any of the following characteristics shall not be accepted:</b> <ul style="list-style-type: none"> <li>• Consisting solely or mainly of dusts, powders or loose fibres</li> <li>• Hazardous wastes</li> <li>• Wastes in liquid form</li> </ul> |                                                                                                                           |
| <b>Waste Code</b>                                                                                                                                                                                                                                               | <b>Description</b>                                                                                                        |
| <b>01</b>                                                                                                                                                                                                                                                       | <b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>               |
| <b>01 04</b>                                                                                                                                                                                                                                                    | <b>wastes from physical and chemical processing of non-metalliferous minerals</b>                                         |
| 01 04 08                                                                                                                                                                                                                                                        | waste gravel and crushed rocks other than those mentioned in 01 04 07                                                     |
| 01 04 09                                                                                                                                                                                                                                                        | waste sand and clays                                                                                                      |
| <b>02</b>                                                                                                                                                                                                                                                       | <b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING</b> |
| <b>02 02</b>                                                                                                                                                                                                                                                    | <b>waste from preparation and processing of meat, fish and other foods of animal origin</b>                               |
| 02 02 02                                                                                                                                                                                                                                                        | shellfish shells from which the soft tissue or flesh has been removed only                                                |
| <b>03</b>                                                                                                                                                                                                                                                       | <b>WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD</b>                  |
| <b>03 01</b>                                                                                                                                                                                                                                                    | <b>wastes from wood processing and the production of panels and furniture</b>                                             |
| 03 01 01                                                                                                                                                                                                                                                        | waste bark and cork                                                                                                       |
| <b>03 03</b>                                                                                                                                                                                                                                                    | <b>wastes from pulp, paper and cardboard production and processing</b>                                                    |
| 03 03 01                                                                                                                                                                                                                                                        | waste bark and wood                                                                                                       |
| <b>10</b>                                                                                                                                                                                                                                                       | <b>WASTES FROM THERMAL PROCESSES</b>                                                                                      |
| <b>10 01</b>                                                                                                                                                                                                                                                    | <b>waste from power stations and other combustion plants</b>                                                              |
| 10 01 01                                                                                                                                                                                                                                                        | bottom ash and slag only                                                                                                  |
| 10 01 02                                                                                                                                                                                                                                                        | pulverised fuel ash only                                                                                                  |
| 10 01 05                                                                                                                                                                                                                                                        | gypsum (solid) only                                                                                                       |
| 10 01 07                                                                                                                                                                                                                                                        | gypsum (sludge) only                                                                                                      |
| 10 01 15                                                                                                                                                                                                                                                        | bottom ash and slag only from co-incineration other than those mentioned in 10 01 14                                      |
| <b>10 11</b>                                                                                                                                                                                                                                                    | <b>wastes from manufacture of glass and glass products</b>                                                                |
| 10 11 12                                                                                                                                                                                                                                                        | clean glass other than those mentioned in 10 11 11                                                                        |
| <b>10 12</b>                                                                                                                                                                                                                                                    | <b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>                                  |
| 10 12 08                                                                                                                                                                                                                                                        | waste ceramics, bricks, tiles and construction products(after thermal processing)                                         |
| <b>10 13</b>                                                                                                                                                                                                                                                    | <b>wastes from manufacture of cement, lime and plaster products and articles and products made from them</b>              |

|              |                                                                                                                                                                  |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 13 14     | waste concrete only                                                                                                                                              |
| <b>15</b>    | <b>WASTE PACKAGING</b>                                                                                                                                           |
| <b>15 01</b> | <b>packaging</b>                                                                                                                                                 |
| 15 01 07     | clean glass only                                                                                                                                                 |
| <b>17</b>    | <b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>                                                                     |
| <b>17 01</b> | <b>concrete, bricks, tiles and ceramics</b>                                                                                                                      |
| 17 01 01     | concrete                                                                                                                                                         |
| 17 01 02     | bricks                                                                                                                                                           |
| 17 01 03     | tiles and ceramics                                                                                                                                               |
| 17 01 07     | mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06                                                                          |
| <b>17 02</b> | <b>wood, glass and plastic</b>                                                                                                                                   |
| 17 02 02     | clean glass only                                                                                                                                                 |
| <b>17 03</b> | <b>bituminous mixtures, coal tar and tarred products</b>                                                                                                         |
| 17 03 02     | road base and road planings (other than those containing coal tar) only                                                                                          |
| <b>17 05</b> | <b>soil (including excavated soil from contaminated sites) stones and dredging spoil</b>                                                                         |
| 17 05 04     | soil and stones other than those mentioned in 17 05 03                                                                                                           |
| 17 05 06     | dredging spoil other than those mentioned in 17 05 05                                                                                                            |
| 17 05 08     | track ballast other than those mentioned in 17 05 07                                                                                                             |
| <b>17 08</b> | <b>gypsum based construction material</b>                                                                                                                        |
| 17 08 02     | gypsum only other than that mentioned in 17 08 01                                                                                                                |
| <b>19</b>    | <b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE</b> |
| <b>19 05</b> | <b>wastes from aerobic treatment of solid waste</b>                                                                                                              |
| 19 05 03     | compost from source segregated biodegradable waste only                                                                                                          |
| <b>19 08</b> | <b>wastes from waste water treatment plants not otherwise specified</b>                                                                                          |
| 19 08 02     | washed sewage grit (waste from desanding) free from sewage contamination only                                                                                    |
| 19 08 99     | stone filter media if free from sewage contamination only                                                                                                        |
| <b>19 09</b> | <b>wastes from the preparation of water intended for human consumption or water for industrial use</b>                                                           |
| 19 09 02     | sludges from water clarification                                                                                                                                 |
| <b>19 12</b> | <b>wastes from the mechanical treatment of wastes</b>                                                                                                            |
| 19 12 05     | clean glass only                                                                                                                                                 |
| 19 12 09     | minerals (for example sand, stones)                                                                                                                              |
| 19 12 12     | treated bottom ash including IBA and slag other than that containing dangerous substances only                                                                   |
| <b>19 13</b> | <b>wastes from soil and groundwater remediation</b>                                                                                                              |
| 19 13 02     | solid wastes from soil remediation other than those mentioned in 19 13 01                                                                                        |
| 19 13 04     | sludges from soil remediation other than those mentioned in 19 13 03                                                                                             |
| <b>20</b>    | <b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>                   |
| <b>20 01</b> | <b>separately collected fractions</b>                                                                                                                            |
| 20 01 02     | clean glass only                                                                                                                                                 |
| <b>20 02</b> | <b>garden and park wastes</b>                                                                                                                                    |
| 20 02 02     | soil and stones                                                                                                                                                  |

## 2.4 Operating techniques

2.4.1 The activities shall be operated using the techniques and in the manner described in Table 2.4 below.

**Table 2.4 Operating techniques**

| <b>Table 2.4 Operating techniques</b>                                                                                                                                                       |                                                                                                |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--|
| When located within groundwater Source Protection Zones 1 or 2 the specified wastes below shall be stored and treated on an impermeable surface with a sealed drainage system.              |                                                                                                |  |
| When located outside groundwater Source Protection Zones 1 or 2 all permitted wastes shall be stored and treated on hard-standing or on an impermeable surface with sealed drainage system. |                                                                                                |  |
| <b>Waste Code</b>                                                                                                                                                                           | <b>Description</b>                                                                             |  |
| 03 01 01                                                                                                                                                                                    | waste bark and cork                                                                            |  |
| 03 03 01                                                                                                                                                                                    | waste bark and wood                                                                            |  |
| 10 01 01                                                                                                                                                                                    | bottom ash and slag only                                                                       |  |
| 10 01 05                                                                                                                                                                                    | gypsum (solid) only                                                                            |  |
| 10 01 07                                                                                                                                                                                    | gypsum (sludge) only                                                                           |  |
| 10 01 15                                                                                                                                                                                    | bottom ash and slag only from co-incineration other than those mentioned in 10 01 14           |  |
| 17 05 06                                                                                                                                                                                    | dredging spoil other than those mentioned in 17 05 05                                          |  |
| 17 08 02                                                                                                                                                                                    | gypsum only other than that mentioned in 17 08 01                                              |  |
| 19 05 03                                                                                                                                                                                    | compost from source segregated biodegradable waste only                                        |  |
| 19 09 02                                                                                                                                                                                    | sludges from water clarification                                                               |  |
| 19 12 12                                                                                                                                                                                    | treated bottom ash including IBA and slag other than that containing dangerous substances only |  |
| 19 13 02                                                                                                                                                                                    | solid wastes from soil remediation other than those mentioned in 19 13 01                      |  |
| 19 13 04                                                                                                                                                                                    | sludges from soil remediation other than those mentioned in 19 13 03                           |  |

## 3 – Emissions and monitoring

### 3.1 Emissions of substances not controlled by emission limits

- 3.1.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.1.2 The operator shall:
- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
  - implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.1.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container

### 3.2 Odour

- 3.2.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.
- 3.2.2 The operator shall:



- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.3 Noise and vibration**

3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable, to minimise, the noise and vibration.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **4 – Information**

### **4.1 Records**

4.1.1 All records required to be made by these standard rules shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible or are capable of retrieval; and
- (d) be retained, unless otherwise agreed by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) off-site environmental effects; and
  - (ii) matters which affect the condition of land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by these standard rules, unless otherwise agreed in writing by the Environment Agency

### **4.2 Reporting**

4.2.1 The operator shall send all reports and notifications required by these standard rules to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

### **4.3 Notifications**

4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
  - (b) the breach of a limit specified in these standard rules; or
  - (c) any significant adverse environmental effects.
- 4.3.2 Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters except where such disclosure is prohibited by Stock Exchange rules:
- a) Where the operator is a registered company:
    - any change in the operator's trading name, registered name or registered office address; and
    - any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
  - b) Where the operator is a corporate body other than a registered company:
    - any change in the operator's name or address; and
    - any steps taken with a view to the dissolution of the operator.
  - c) In any other case:
    - the death of any of the named operators (where the operator consists of more than one named individual);
    - any change in the operator's name(s) or address(es); and
    - any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership.

## 4.4 Interpretation

- 4.4.1 In these standard rules the expressions listed below shall have the meaning given.
- 4.4.2 In these standard rules references to reports and notifications mean written reports and notifications, except when reference is being made to notification being made "without delay", in which case it may be provided by telephone.
- "accident"* means an accident that may result in pollution.
- "AQMA"* means an air quality management area within the meaning of the Environment Act 1995 which has been designated due to concerns about particulate matter in the form of PM10.
- "authorised officer"* means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(4) of that Act.
- "dangerous substances"* means any substance that has been or will be classified as dangerous in Directive 67/548/EEC and its subsequent amendments.
- "domestic purposes"* has the same meaning as in section 218 of the Water Industry Act 1991.
- "emissions of substances not controlled by emission limits"* means emissions of substances to air, water or land from the activities, either from emission points specified in these standard rules or from other localised or diffuse sources, which are not controlled by an emission limit.

*“European Site”* means a European site within the meaning of Regulation 8 of the Conservation of Habitats and Species Regulations 2017.

*“food production purposes”* means the manufacturing, processing, preserving or marketing purposes with respect to food or drink for which water supplied to food production premises may be used, and for the purposes of this definition *“food production purposes”* means premises used for the purposes of a business of preparing food or drink for consumption otherwise than on the premises.

*“good habitat”* means rough (especially tussocky) grassland, scrub and woodland

*“groundwater”* means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

*“hazardous waste”* has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended)

*“impermeable surface”* means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface, and should be read in conjunction with the term *“sealed drainage system”* (below).

*“hardstanding”* is a compacted solid surface capable of withstanding the operation and the loading / unloading of wastes.

*“IBA”* means incinerator bottom ash derived from the incineration or pyrolysis of waste.

*“pollution”* means emissions as a result of human activity which may—

- (a) be harmful to human health or the quality of the environment,
- (b) cause offence to a human sense,
- (c) result in damage to material property, or
- (d) impair or interfere with amenities and other legitimate uses of the environment.

*“quarter”* means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

*“R”* means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

*“sealed drainage system”* in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- (a) no liquid will run off the surface otherwise than via the system;
- (b) except where they may lawfully be discharged to foul sewer, all liquids entering the system are collected in a sealed sump.

*“secure storage”* means storage where waste cannot escape and members of the public do not have access to it.

*“SSSI”* means Site of Special Scientific Interest within the meaning of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

*“Waste code”* means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk. ‘List of Wastes’ means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

*“year”* means calendar year commencing on 1<sup>st</sup> January.

## **End of standard rules**

# Certificate of Registration under the Waste (England and Wales) Regulations 2011

## Regulation authority

Name



Address

National Customer Contact Centre  
99 Parkway Avenue  
Sheffield  
S9 4WF

Telephone number

03708 506506

The Environment Agency certify that the following information is entered in the register which they maintain under regulation 28 of the Waste (England and Wales) Regulations 2011.

## Carriers details

Name of registered carrier

T J TRANSPORT LTD.

Registered as

An upper tier waste carrier, broker and dealer

Registration number

CBDU133054

Address of place of business

T J TRANSPORT LTD  
CHARITY FARM  
WICKHAM ROAD  
FAREHAM  
PO17 5BP

Telephone number

01329226446

Date of registration

5 September 2022

Expiry date of

registration (unless  
revoked)

22 September 2025

## Making changes to your registration

Your registration will last 3 years and will need to be renewed after this period. If any of your details change, you must notify us within 28 days of the change.



## **Appendix F**

### **Alert Pro Reports & Dust Frisbee Data**

**Statom Group Limited**

Statom House, 795 London Road, Grays, Essex, RM20 3LH

Tel: 01708 222 777

[www.statom.co.uk](http://www.statom.co.uk)

Registered in England and Wales

Company No: 8785228 VAT 177634867



Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/1/2023, 2:16:44 PM to 8/1/2023, 4:40:00 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature

NameIshara Shiromi

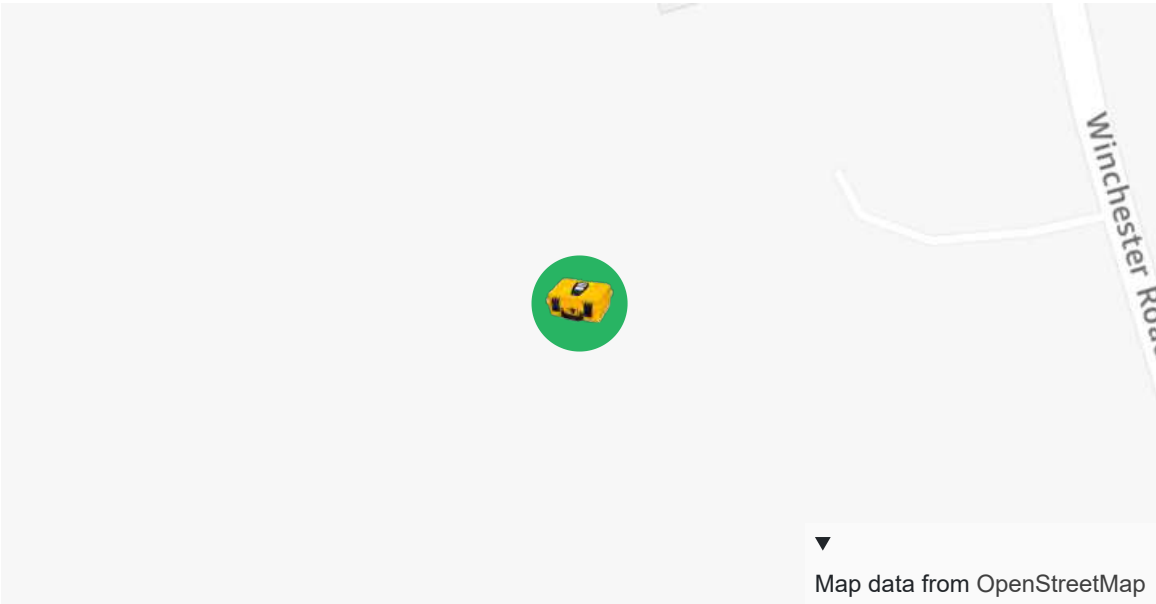
Date02/08/2023

### Summary

|                 |                      |
|-----------------|----------------------|
| Serial          | 100117               |
| Session Start   | 8/1/2023, 2:16:44 PM |
| Session End     | 8/1/2023, 4:40:00 PM |
| Session Count   | 1                    |
| Total Fibres    | 3                    |
| Total Particles | 1607                 |
| Total Warnings  | 0                    |
| Total Alarms    | 0                    |
| Level           | CLEAR                |

Tags

Street Map



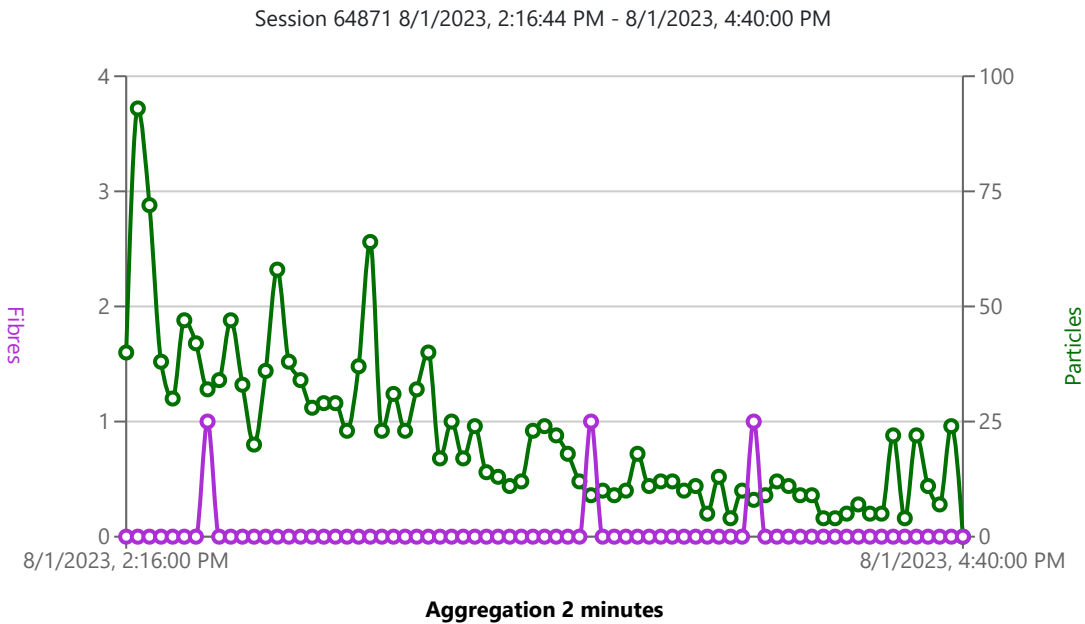
Satellite Map



Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                | End                  | Fibres | Particles | Warnings | Alarms |
|--------|----------------------|----------------------|--------|-----------|----------|--------|
| 100117 | 8/1/2023, 2:16:44 PM | 8/1/2023, 4:40:00 PM | 3      | 1607      | 0        | 0      |

# Sampling Line Charts







Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/3/2023, 9:35:34 AM to 8/3/2023, 4:17:46 PM 2 sessions were recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

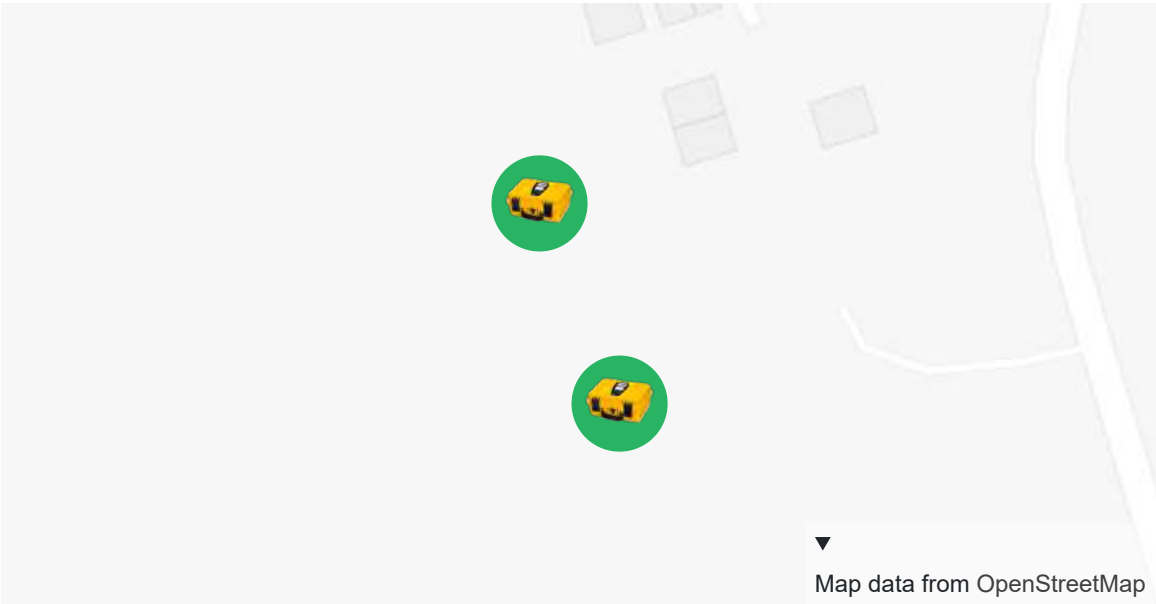
03/08/2023

### Summary

|                 |                      |
|-----------------|----------------------|
| Serial          | 100117               |
| Session Start   | 8/3/2023, 9:35:34 AM |
| Session End     | 8/3/2023, 4:17:46 PM |
| Session Count   | 2                    |
| Total Fibres    | 20                   |
| Total Particles | 3892                 |
| Total Warnings  | 0                    |
| Total Alarms    | 0                    |
| Level           | CLEAR                |

Tags

Street Map



Satellite Map

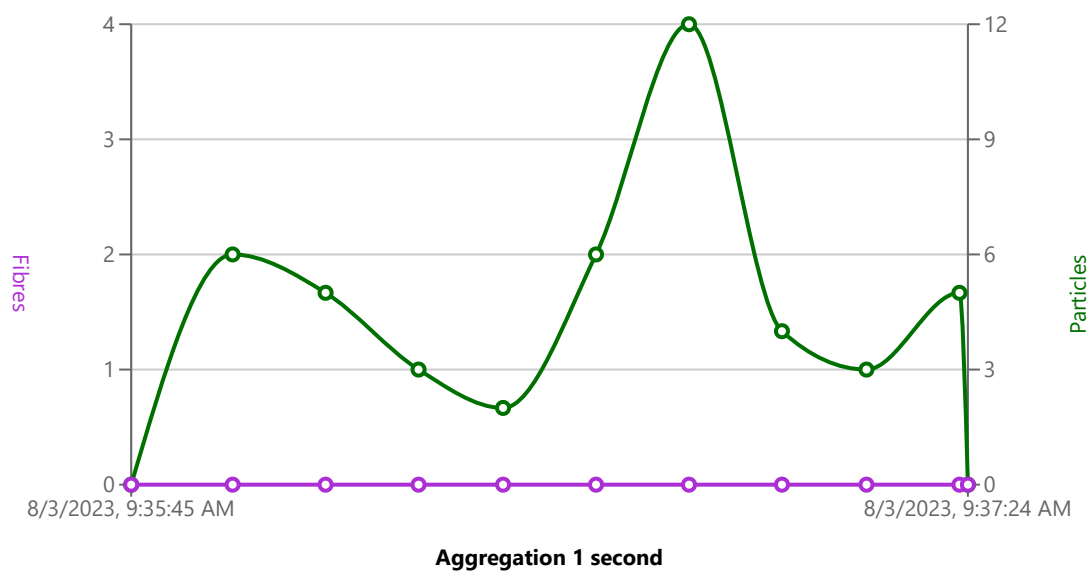


Sampling Breakdown (Limited to 100 Rows)

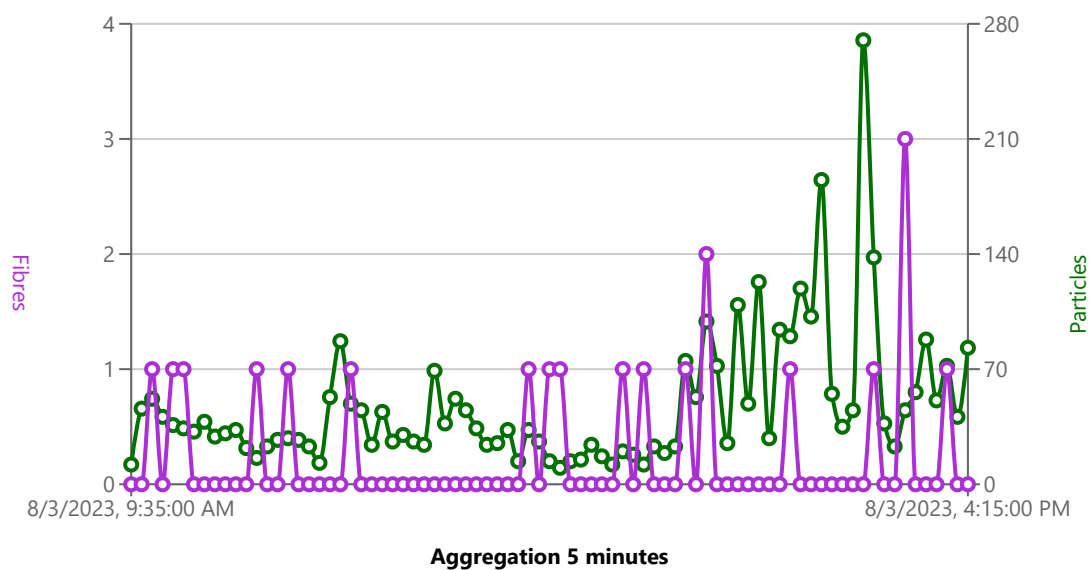
| Unit   | Start                | End                  | Fibres | Particles | Warnings | Alarms |
|--------|----------------------|----------------------|--------|-----------|----------|--------|
| 100117 | 8/3/2023, 9:35:34 AM | 8/3/2023, 9:37:24 AM | 0      | 46        | 0        | 0      |
| 100117 | 8/3/2023, 9:38:21 AM | 8/3/2023, 4:17:46 PM | 20     | 3846      | 0        | 0      |

## Sampling Line Charts

Session 65074 8/3/2023, 9:35:34 AM - 8/3/2023, 9:37:24 AM



Session 65075 8/3/2023, 9:38:21 AM - 8/3/2023, 4:17:46 PM





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/4/2023, 8:05:17 AM to 8/4/2023, 10:00:54 AM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

07/08/2023

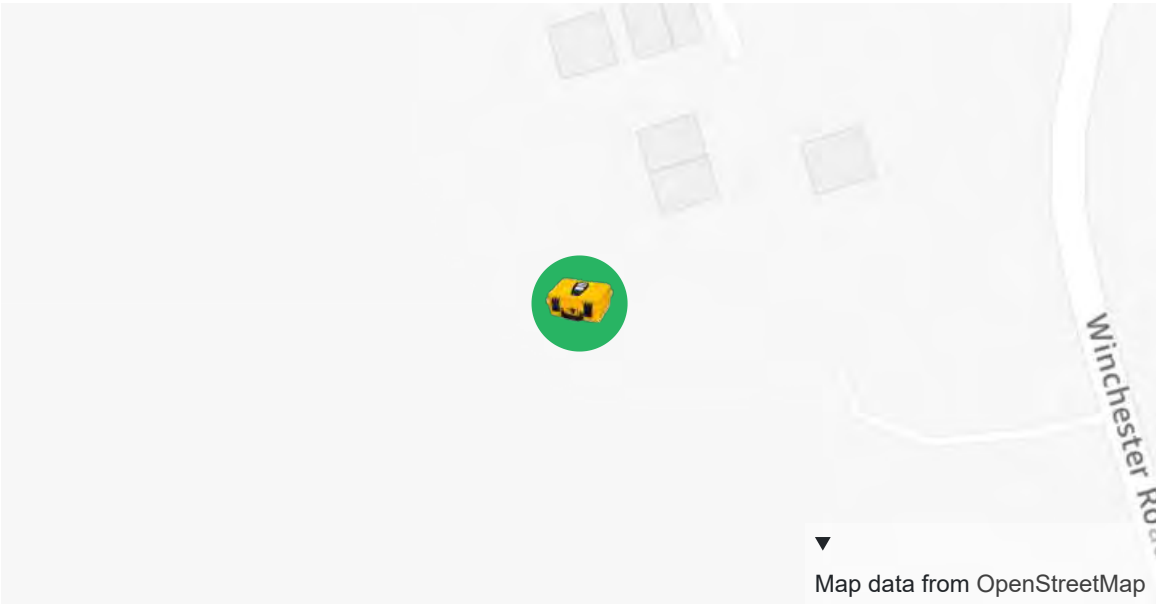
### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/4/2023, 8:05:17 AM  |
| Session End     | 8/4/2023, 10:00:54 AM |
| Session Count   | 1                     |
| Total Fibres    | 5                     |
| Total Particles | 1769                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |



Tags

Street Map



Satellite Map

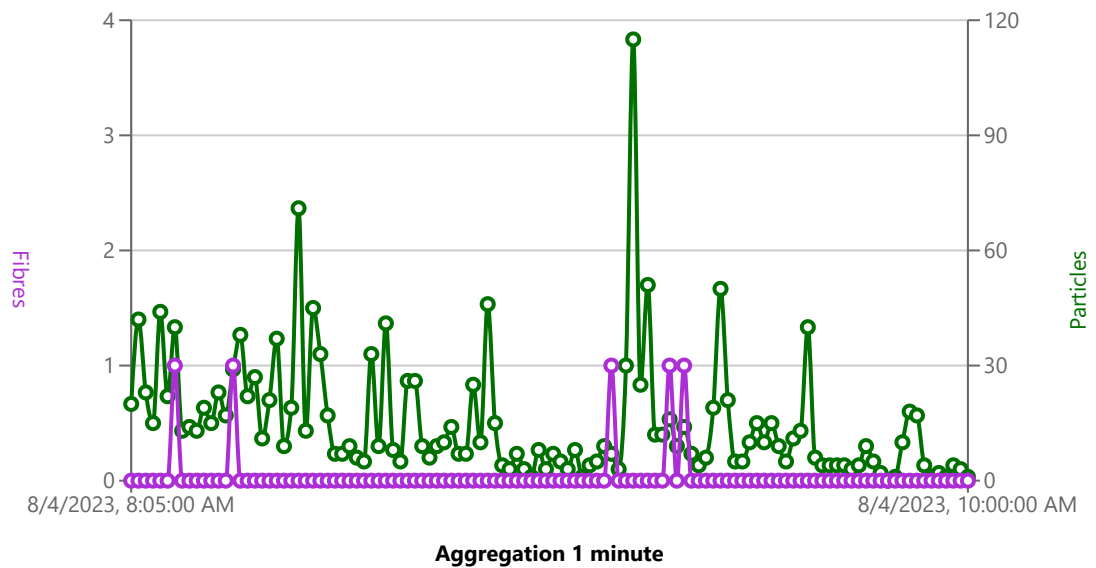


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                | End                   | Fibres | Particles | Warnings | Alarms |
|--------|----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/4/2023, 8:05:17 AM | 8/4/2023, 10:00:54 AM | 5      | 1769      | 0        | 0      |

# Sampling Line Charts

Session 65285 8/4/2023, 8:05:17 AM - 8/4/2023, 10:00:54 AM





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/7/2023, 8:43:13 AM to 8/7/2023, 4:44:37 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature

NameIshara Shiromi

Date08/08/2023

### Summary

|                 |                      |
|-----------------|----------------------|
| Serial          | 100117               |
| Session Start   | 8/7/2023, 8:43:13 AM |
| Session End     | 8/7/2023, 4:44:37 PM |
| Session Count   | 1                    |
| Total Fibres    | 14                   |
| Total Particles | 4525                 |
| Total Warnings  | 0                    |
| Total Alarms    | 0                    |
| Level           | CLEAR                |

Tags

Street Map



Satellite Map

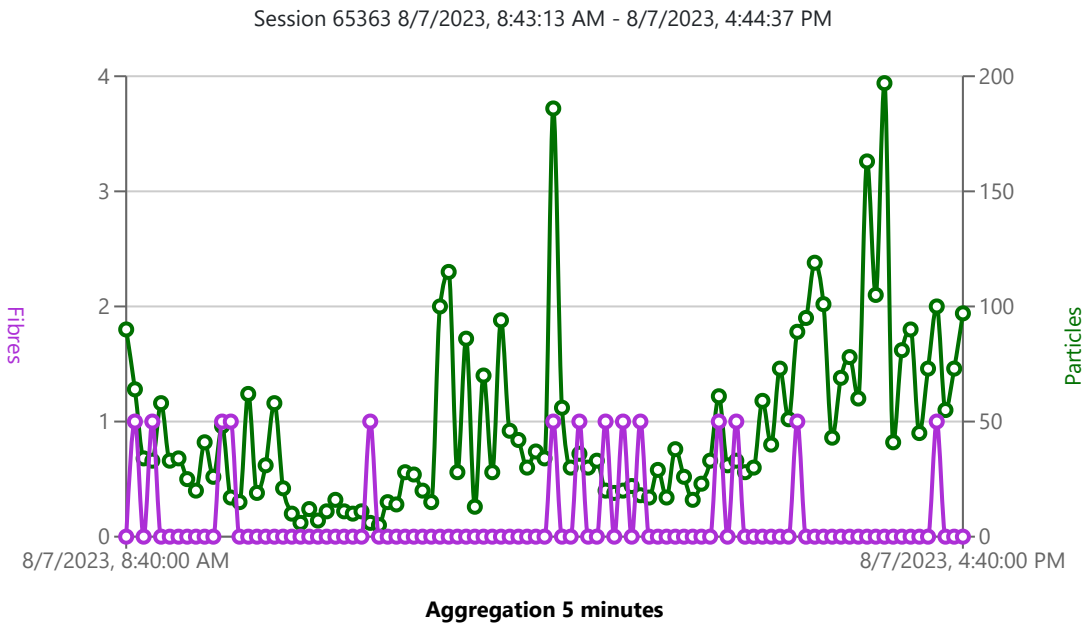


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                | End                  | Fibres | Particles | Warnings | Alarms |
|--------|----------------------|----------------------|--------|-----------|----------|--------|
| 100117 | 8/7/2023, 8:43:13 AM | 8/7/2023, 4:44:37 PM | 14     | 4525      | 0        | 0      |



# Sampling Line Charts





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/8/2023, 7:50:25 AM to 8/8/2023, 11:10:41 AM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature

NameIshara Shiromi

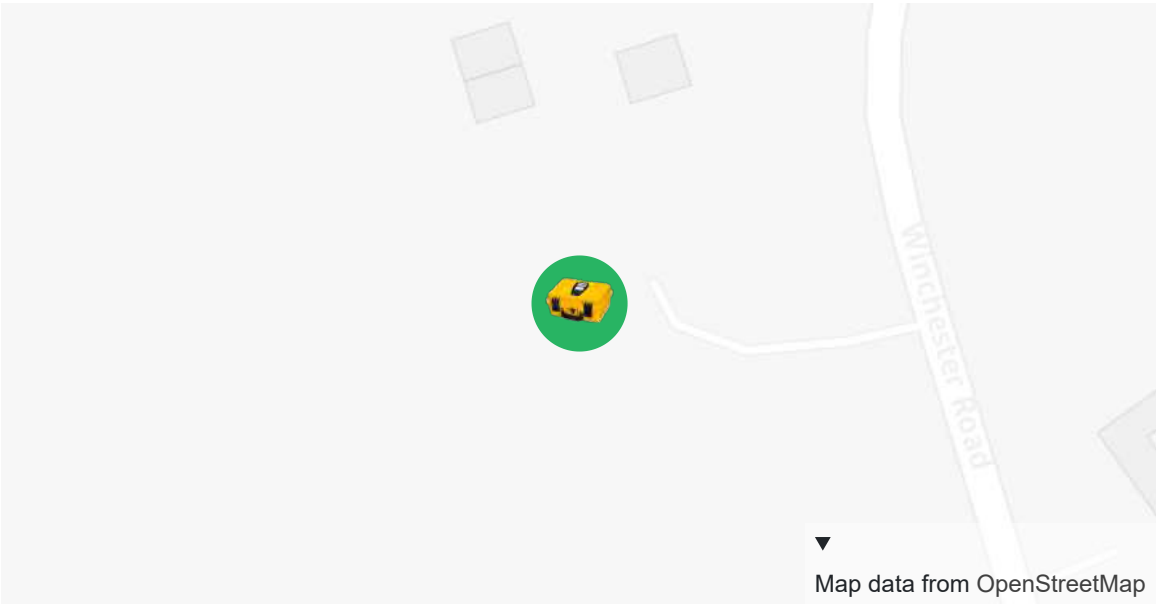
Date10/08/2023

### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/8/2023, 7:50:25 AM  |
| Session End     | 8/8/2023, 11:10:41 AM |
| Session Count   | 1                     |
| Total Fibres    | 6                     |
| Total Particles | 3048                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |

Tags

Street Map



Satellite Map

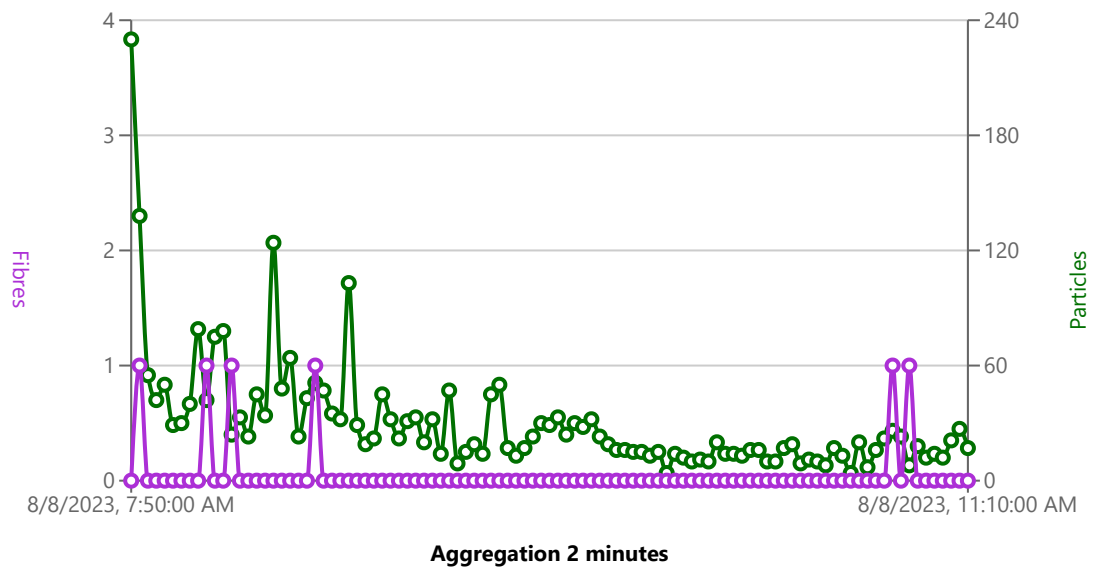


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                | End                   | Fibres | Particles | Warnings | Alarms |
|--------|----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/8/2023, 7:50:25 AM | 8/8/2023, 11:10:41 AM | 6      | 3048      | 0        | 0      |

# Sampling Line Charts

Session 65660 8/8/2023, 7:50:25 AM - 8/8/2023, 11:10:41 AM







Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

Sampling Result

For the time period 8/9/2023, 8:09:43 AM to 8/9/2023, 4:33:22 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

Signature

Signature 

Name Ishara Shiromi

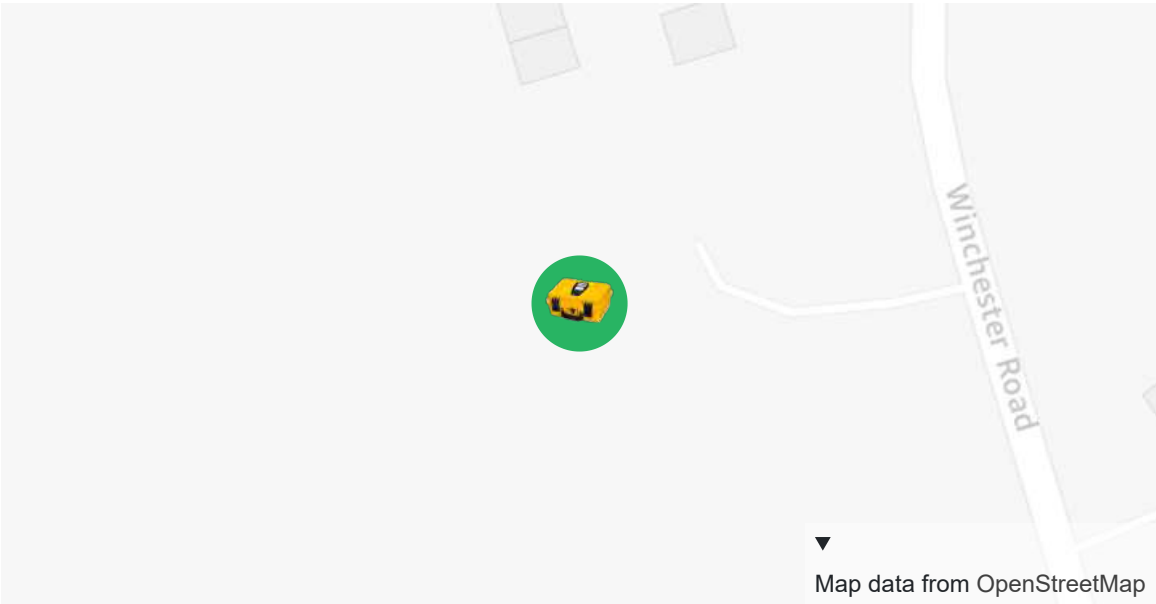
Date 10/08/2023

Summary

|                 |                      |
|-----------------|----------------------|
| Serial          | 100117               |
| Session Start   | 8/9/2023, 8:09:43 AM |
| Session End     | 8/9/2023, 4:33:22 PM |
| Session Count   | 1                    |
| Total Fibres    | 10                   |
| Total Particles | 2589                 |
| Total Warnings  | 0                    |
| Total Alarms    | 0                    |
| Level           | CLEAR                |

Tags

Street Map



Satellite Map

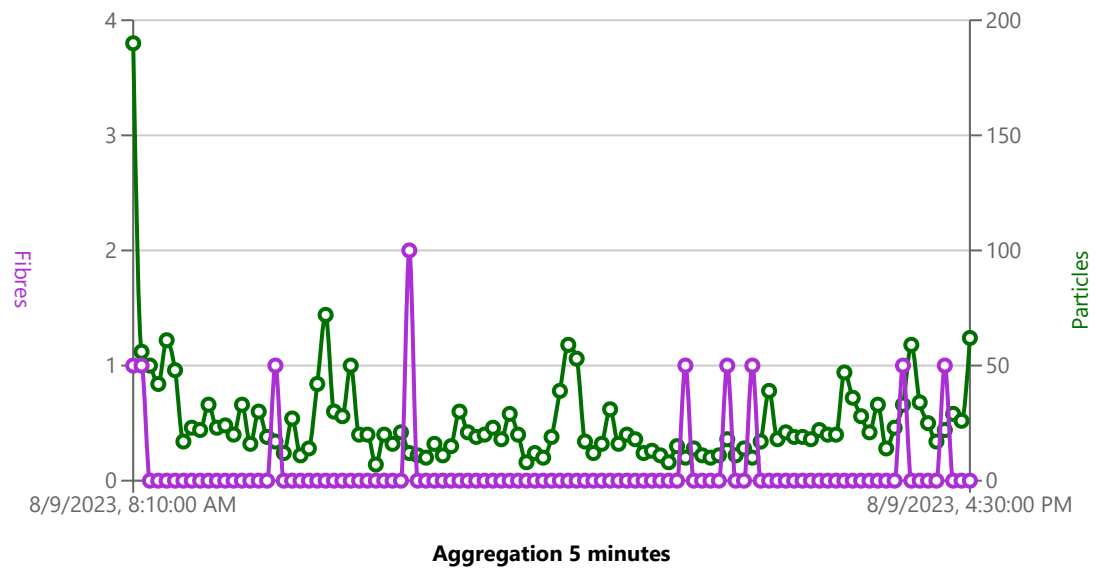


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                | End                  | Fibres | Particles | Warnings | Alarms |
|--------|----------------------|----------------------|--------|-----------|----------|--------|
| 100117 | 8/9/2023, 8:09:43 AM | 8/9/2023, 4:33:22 PM | 10     | 2589      | 0        | 0      |

# Sampling Line Charts

Session 65800 8/9/2023, 8:09:43 AM - 8/9/2023, 4:33:22 PM





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/10/2023, 8:03:12 AM to 8/10/2023, 4:09:43 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature

NameIshara Shiromi

Date11/08/2023

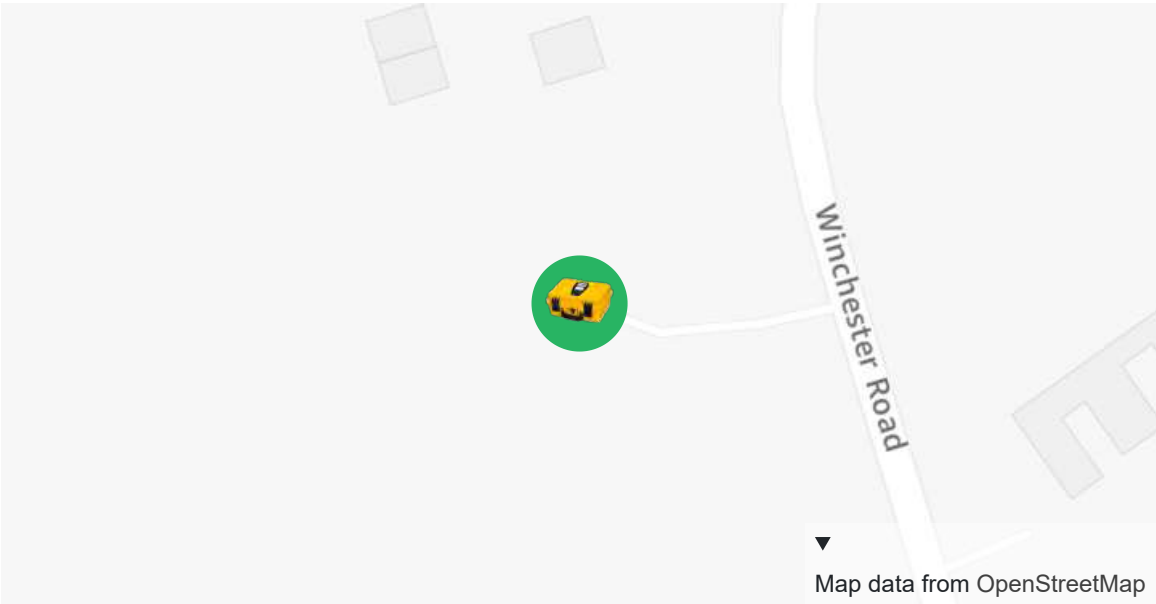
### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/10/2023, 8:03:12 AM |
| Session End     | 8/10/2023, 4:09:43 PM |
| Session Count   | 1                     |
| Total Fibres    | 10                    |
| Total Particles | 3294                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |



Tags

Street Map



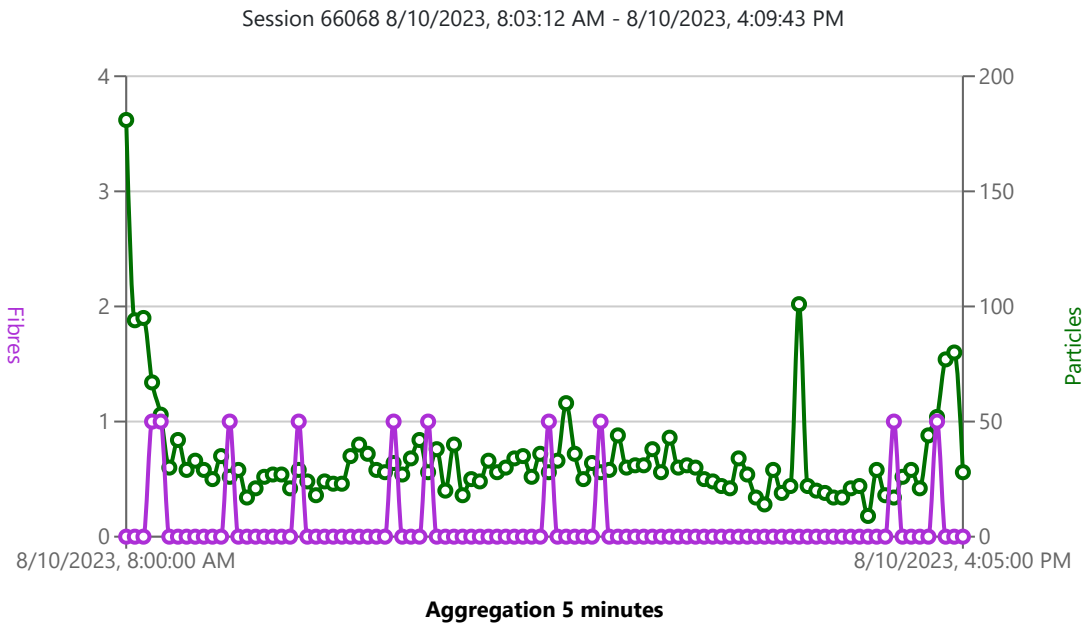
Satellite Map



Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/10/2023, 8:03:12 AM | 8/10/2023, 4:09:43 PM | 10     | 3294      | 0        | 0      |

# Sampling Line Charts





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/11/2023, 8:22:35 AM to 8/11/2023, 2:55:26 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

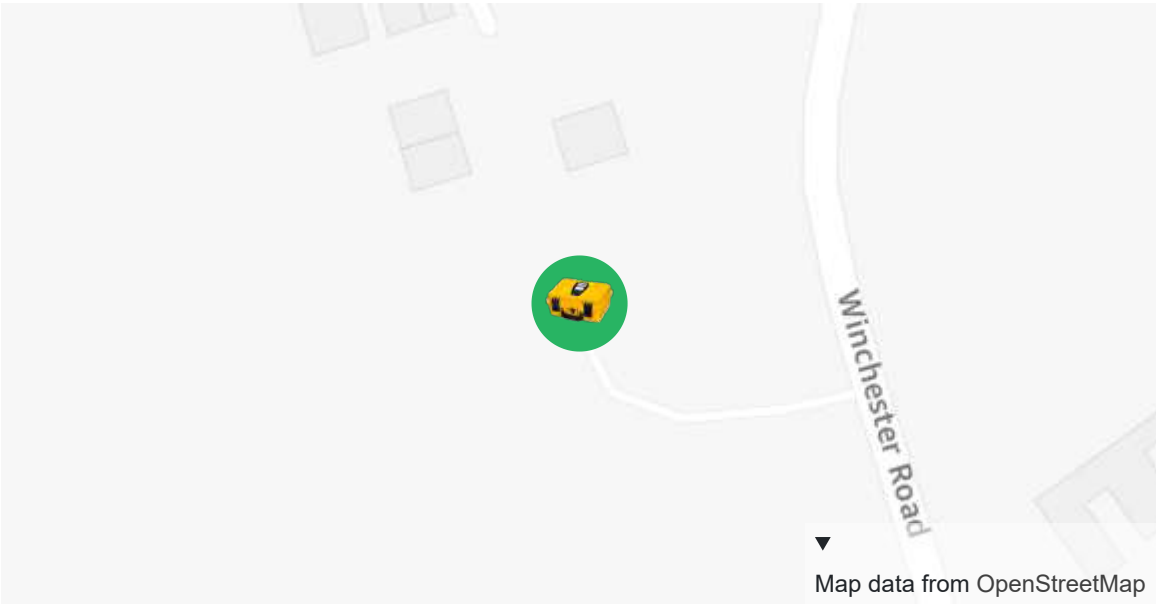
14/08/2023

### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/11/2023, 8:22:35 AM |
| Session End     | 8/11/2023, 2:55:26 PM |
| Session Count   | 1                     |
| Total Fibres    | 10                    |
| Total Particles | 4759                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |

Tags

Street Map



Satellite Map



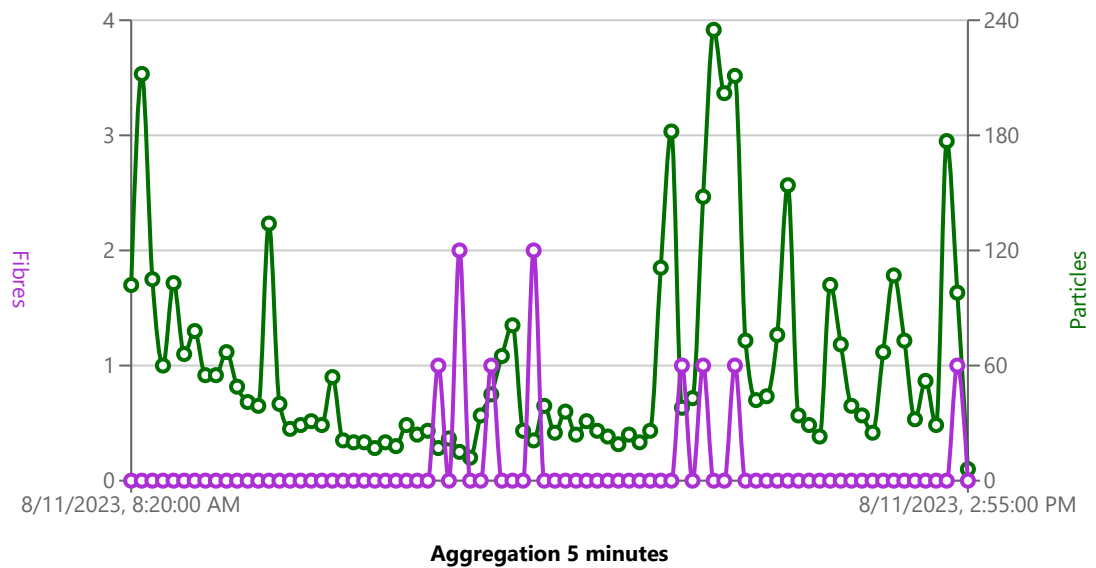
Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/11/2023, 8:22:35 AM | 8/11/2023, 2:55:26 PM | 10     | 4759      | 0        | 0      |



# Sampling Line Charts

Session 66355 8/11/2023, 8:22:35 AM - 8/11/2023, 2:55:26 PM





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/14/2023, 8:03:18 AM to 8/14/2023, 3:44:07 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

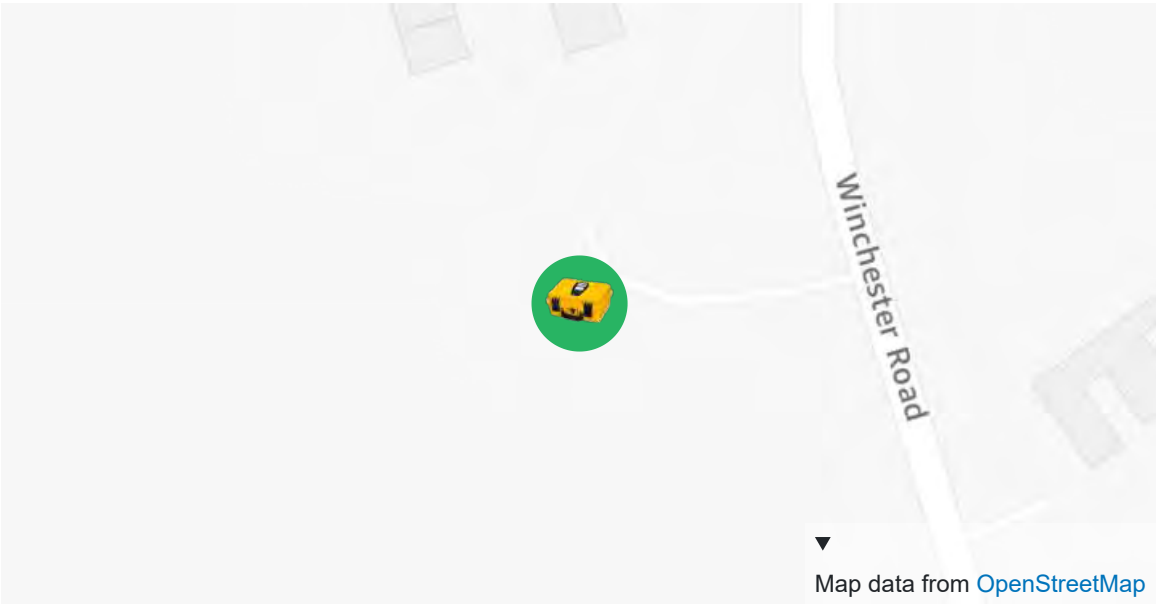
15/08/2023

### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/14/2023, 8:03:18 AM |
| Session End     | 8/14/2023, 3:44:07 PM |
| Session Count   | 1                     |
| Total Fibres    | 12                    |
| Total Particles | 6294                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |

Tags

Street Map



Satellite Map

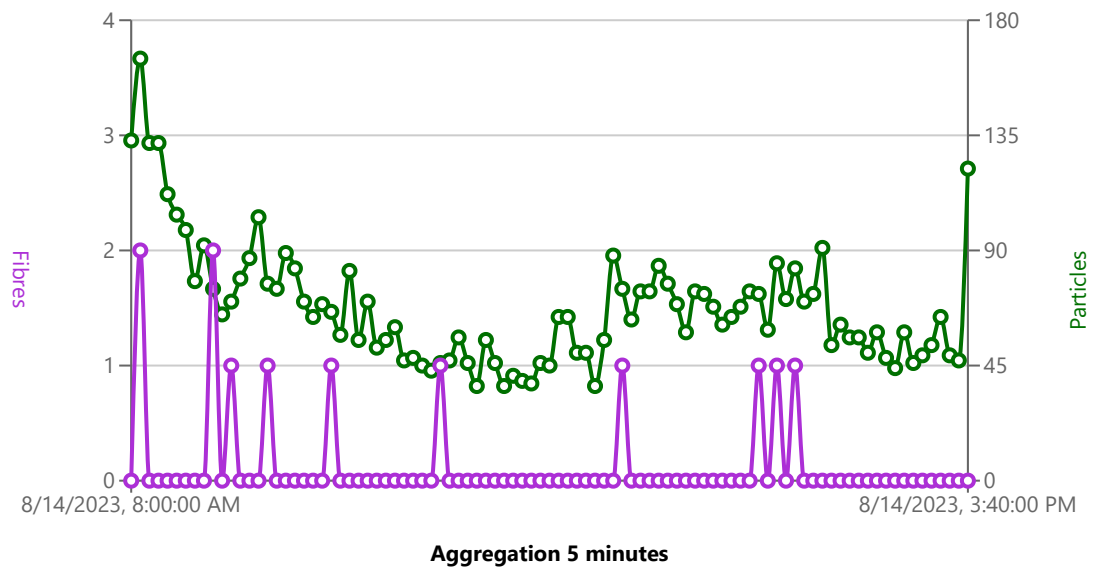


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/14/2023, 8:03:18 AM | 8/14/2023, 3:44:07 PM | 12     | 6294      | 0        | 0      |

# Sampling Line Charts

Session 66591 8/14/2023, 8:03:18 AM - 8/14/2023, 3:44:07 PM







Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/15/2023, 8:03:56 AM to 8/15/2023, 4:16:44 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature

Name

Ishara Shiromi

Date

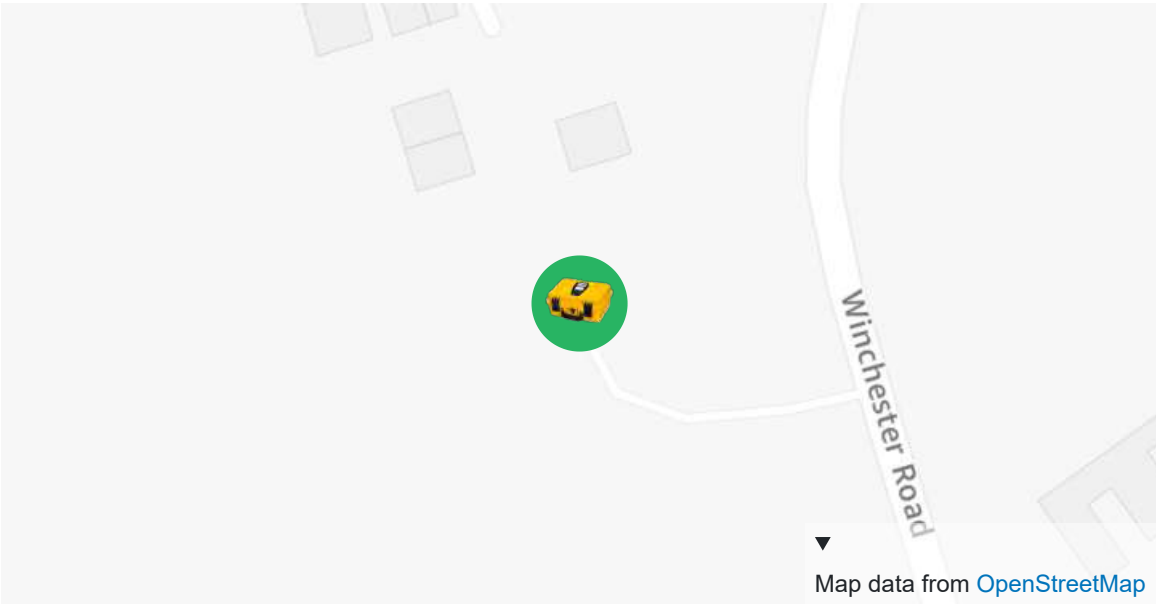
16/08/2023

### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/15/2023, 8:03:56 AM |
| Session End     | 8/15/2023, 4:16:44 PM |
| Session Count   | 1                     |
| Total Fibres    | 17                    |
| Total Particles | 3385                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |

Tags

Street Map



Satellite Map

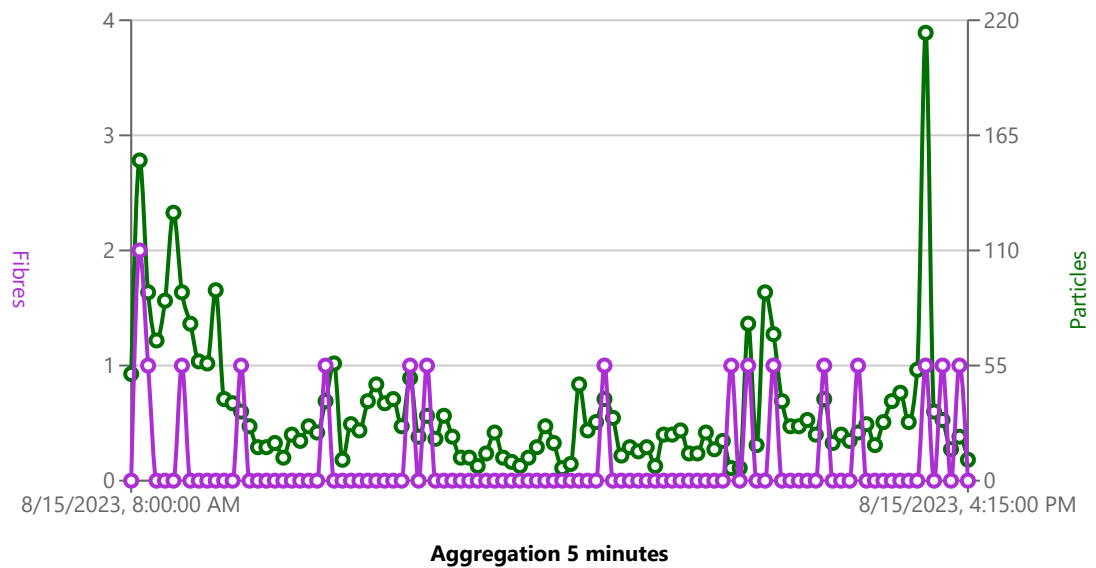


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/15/2023, 8:03:56 AM | 8/15/2023, 4:16:44 PM | 17     | 3385      | 0        | 0      |

# Sampling Line Charts

Session 66834 8/15/2023, 8:03:56 AM - 8/15/2023, 4:16:44 PM





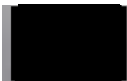
Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/16/2023, 8:01:35 AM to 8/16/2023, 4:14:27 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

16/08/2023

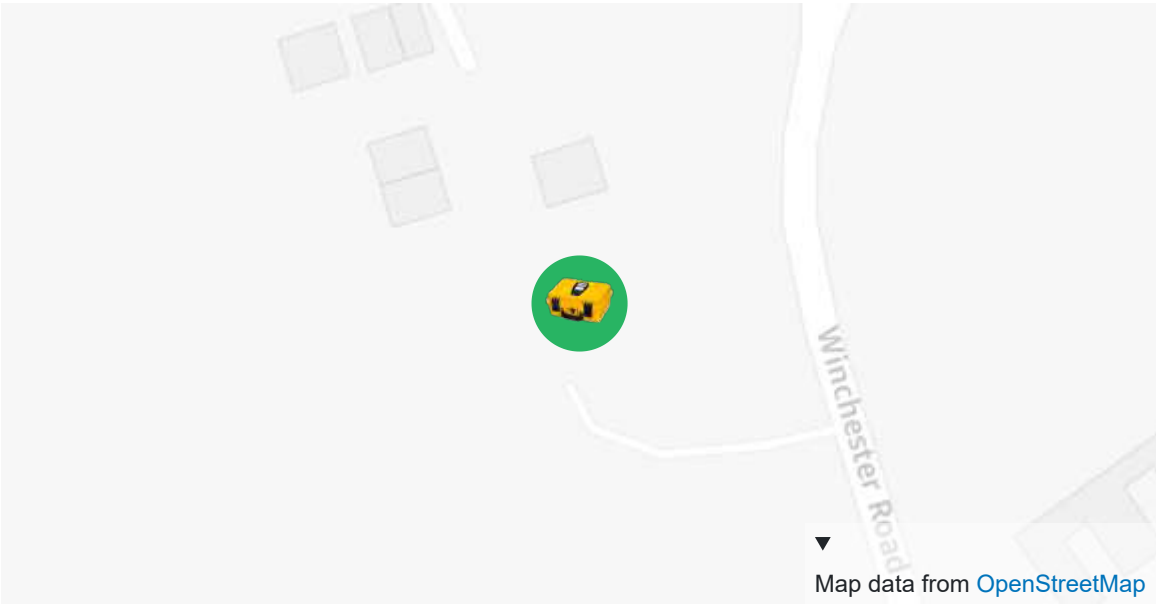
### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/16/2023, 8:01:35 AM |
| Session End     | 8/16/2023, 4:14:27 PM |
| Session Count   | 1                     |
| Total Fibres    | 26                    |
| Total Particles | 5643                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |



Tags

Street Map



Satellite Map

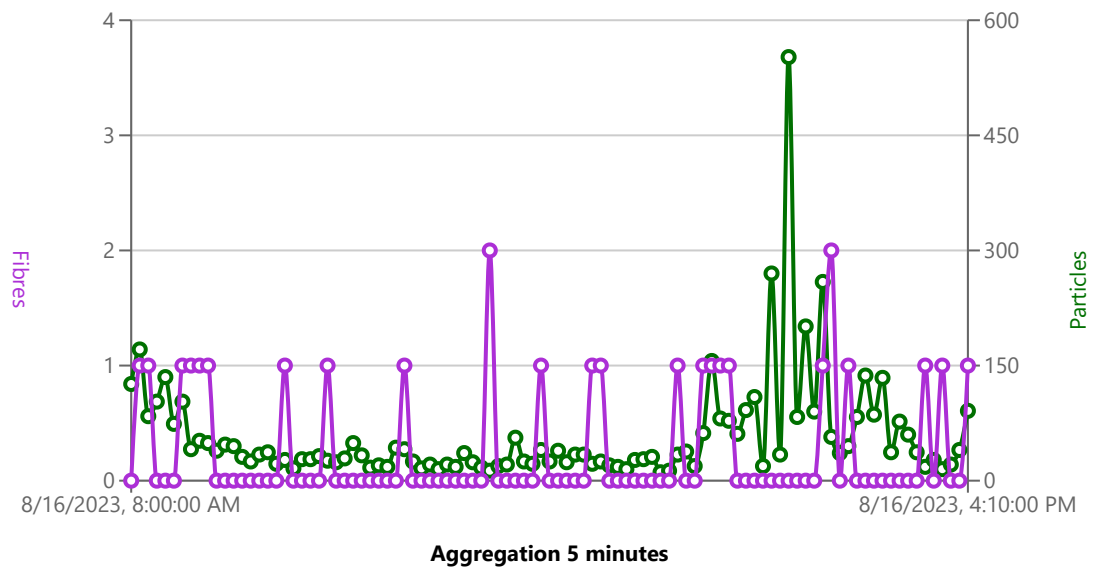


Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/16/2023, 8:01:35 AM | 8/16/2023, 4:14:27 PM | 26     | 5643      | 0        | 0      |

# Sampling Line Charts

Session 67095 8/16/2023, 8:01:35 AM - 8/16/2023, 4:14:27 PM





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/17/2023, 7:34:39 AM to 8/17/2023, 4:05:46 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

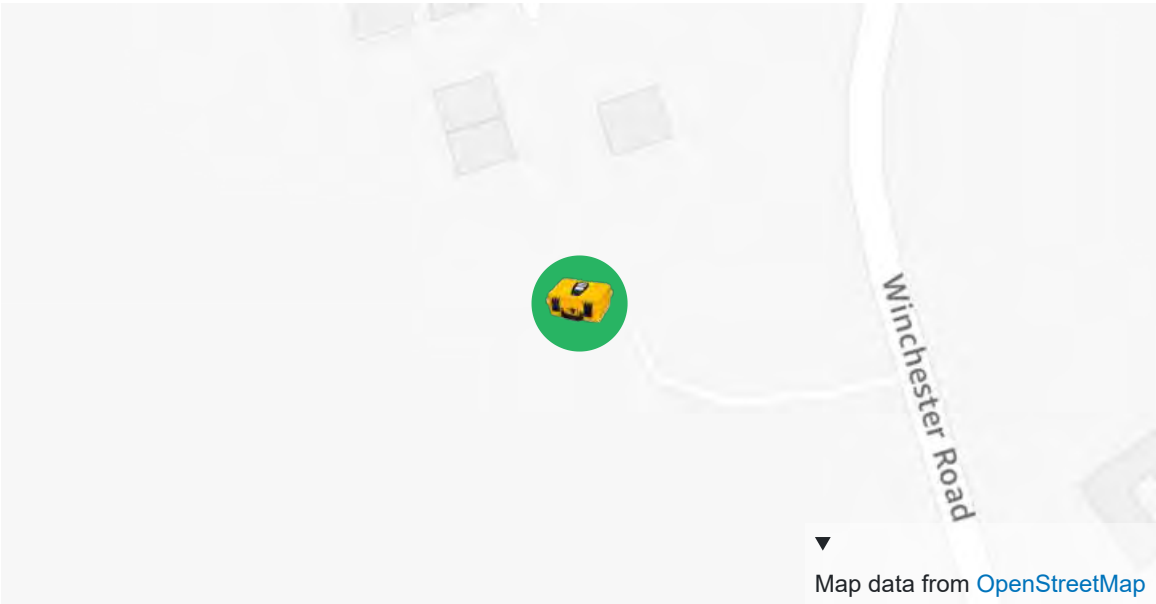
18/08/2023

### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/17/2023, 7:34:39 AM |
| Session End     | 8/17/2023, 4:05:46 PM |
| Session Count   | 1                     |
| Total Fibres    | 17                    |
| Total Particles | 10928                 |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |

Tags

Street Map



Satellite Map



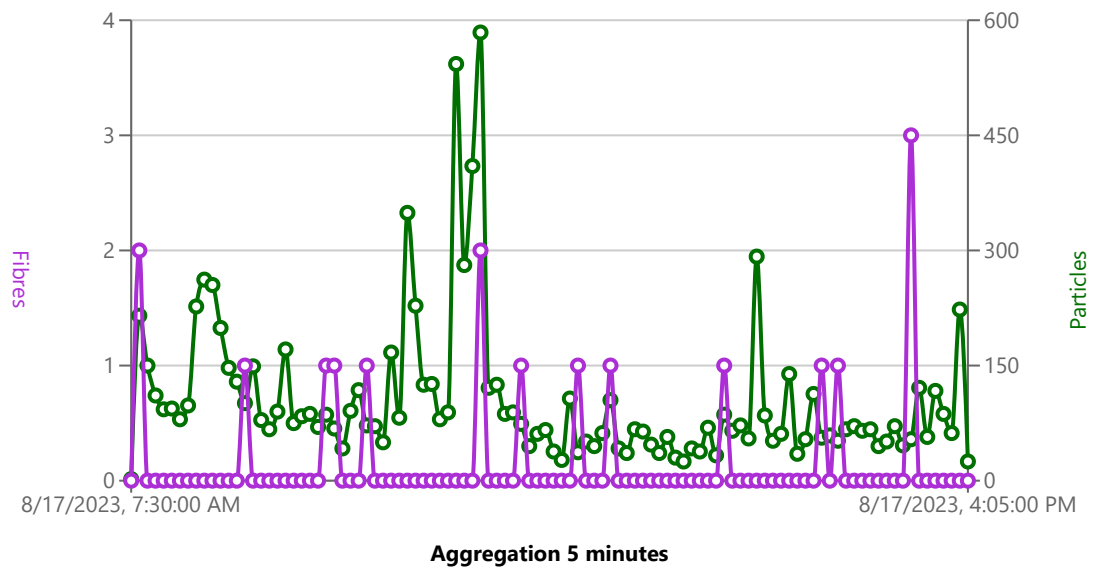
Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/17/2023, 7:34:39 AM | 8/17/2023, 4:05:46 PM | 17     | 10928     | 0        | 0      |



# Sampling Line Charts

Session 67359 8/17/2023, 7:34:39 AM - 8/17/2023, 4:05:46 PM





Alert Technology Ltd have developed the world's first real-time asbestos detection and monitoring technology. This report has been created based on data collated by ALERT PRO CONNECTED device(s) and should not be used as a replacement for any legislatively required asbestos monitoring. The information in this report should be used to understand asbestos risk in more detail with the intention of helping users make data driven decisions to increase safety, efficiency and prioritise budgets.

### Sampling Result

For the time period 8/18/2023, 7:52:57 AM to 8/18/2023, 1:37:28 PM 1 session was recorded. A total of 0 alarms and 0 warnings were seen over this period.

### Signature

Signature



Name

Ishara Shiromi

Date

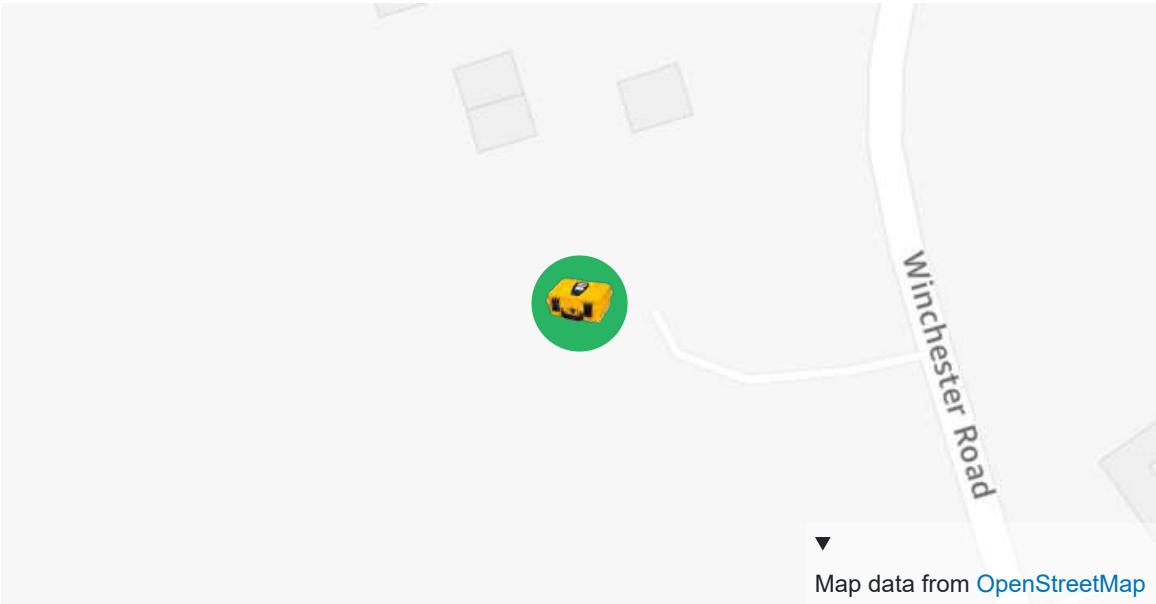
21/08/2023

### Summary

|                 |                       |
|-----------------|-----------------------|
| Serial          | 100117                |
| Session Start   | 8/18/2023, 7:52:57 AM |
| Session End     | 8/18/2023, 1:37:28 PM |
| Session Count   | 1                     |
| Total Fibres    | 12                    |
| Total Particles | 3584                  |
| Total Warnings  | 0                     |
| Total Alarms    | 0                     |
| Level           | CLEAR                 |

Tags

Street Map



Satellite Map



Sampling Breakdown (Limited to 100 Rows)

| Unit   | Start                 | End                   | Fibres | Particles | Warnings | Alarms |
|--------|-----------------------|-----------------------|--------|-----------|----------|--------|
| 100117 | 8/18/2023, 7:52:57 AM | 8/18/2023, 1:37:28 PM | 12     | 3584      | 0        | 0      |

Session 67626 8/18/2023, 7:52:57 AM - 8/18/2023, 1:37:28 PM







Unit A2  
Windmill Road  
Ponswood Industrial Estate  
St Leonards on Sea  
East Sussex  
TN38 9BY  
Telephone: (01424) 718618

[cs@elab-uk.co.uk](mailto:cs@elab-uk.co.uk)  
[info@elab-uk.co.uk](mailto:info@elab-uk.co.uk)

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## THE ENVIRONMENTAL LABORATORY LTD

---

**Analytical Report Number:** 23-49605

**Issue:** 1

**Date of Issue:** 22/08/2023

**Contact:** Michael Gillman

**Customer Details:** Statom Group Ltd  
Statom House  
795 London Road  
Grays  
EssexRM20 3LH

**Quotation No:** Q22-03554

**Order No:** 176-60740 BM

**Customer Reference:** Not Supplied

**Date Received:** 17/08/2023

**Date Approved:** 22/08/2023

**Details:** Boorely Gardens

**Approved by:**



Graham Knight, Lab Manager

---

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

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This report may only be reproduced in full

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# Sample Summary

Report No.: 23-49605, issue number 1

| Elab No. | Client's Ref. | Date Sampled | Date Scheduled | Description | Deviations |
|----------|---------------|--------------|----------------|-------------|------------|
| 334922   | 1             | 14/08/2023   | 17/08/2023     |             | c          |
| 334923   | 2             | 14/08/2023   | 17/08/2023     |             | c          |
| 334924   | 3             | 14/08/2023   | 17/08/2023     |             | c          |
| 334925   | 4             | 14/08/2023   | 17/08/2023     |             | c          |



2683

## Results Summary

Report No.: 23-49605, issue number 1

|                    |            |            |            |            |
|--------------------|------------|------------|------------|------------|
| ELAB Reference     | 334922     | 334923     | 334924     | 334925     |
| Customer Reference |            |            |            |            |
| Sample ID          |            |            |            |            |
| Sample Type        | WATER      | WATER      | WATER      | WATER      |
| Sample Location    | 1          | 2          | 3          | 4          |
| Sample Depth (m)   |            |            |            |            |
| Sampling Date      | 14/08/2023 | 14/08/2023 | 14/08/2023 | 14/08/2023 |

| Determinand                       | Codes | Units     | LOD |            |            |            |            |
|-----------------------------------|-------|-----------|-----|------------|------------|------------|------------|
| <b>Frisbee Monitoring Station</b> |       |           |     |            |            |            |            |
| Date Monitoring Started           | N     | -         | 0   | 07/08/2023 | 07/08/2023 | 07/08/2023 | 07/08/2023 |
| Date Monitoring Finished          | N     | -         | 0   | 14/08/2023 | 14/08/2023 | 14/08/2023 | 14/08/2023 |
| Number of Days Exposed            | N     | Days      | 0   | 7          | 7          | 7          | 7          |
| Total insoluble solids            | N     | mg        | 0.1 | 5.4        | 2.4        | 13         | 6.6        |
| Total Dust Deposition             | N     | mg/m2/day | 0.1 | 19         | 8.5        | 45         | 23         |



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards on Sea, East Sussex, TN38 9BY

Tel: +44 (0)1424 718618, Email: info@elab-uk.co.uk, Web: www.elab-uk.co.uk

# Results Summary

Report No.: 23-49605, issue number 1

## Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

| Elab No | Depth (m) | Clients Reference | Description of Sample Matrix # | Asbestos Identification | Gravimetric Analysis Total (%) | Gravimetric Analysis by ACM Type (%) | Free Fibre Analysis (%) | Total Asbestos (%) |
|---------|-----------|-------------------|--------------------------------|-------------------------|--------------------------------|--------------------------------------|-------------------------|--------------------|
| 334922  |           | 1                 | Filter Paper                   | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 334923  |           | 2                 | Filter Paper                   | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 334924  |           | 3                 | Filter Paper                   | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |
| 334925  |           | 4                 | Filter Paper                   | No asbestos detected    | n/t                            | n/t                                  | n/t                     | n/t                |





## Method Summary

Report No.: 23-49605, issue number 1

| Parameter               | Codes | Analysis Undertaken<br>On | Date<br>Tested | Method<br>Number | Technique  |
|-------------------------|-------|---------------------------|----------------|------------------|------------|
| <b>Soil</b>             |       |                           |                |                  |            |
| Asbestos identification | U     | Air dried sample          | 22/08/2023     | 281              | Microscopy |

## Report Information

Report No.: 23-49605, issue number 1

### Key

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U   | hold UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| M   | hold MCERTS and UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| N   | do not currently hold UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ^   | MCERTS accreditation not applicable for sample matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| *   | UKAS accreditation not applicable for sample matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| S   | Subcontracted to approved laboratory UKAS Accredited for the test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| SM  | Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| NS  | Subcontracted to approved laboratory. UKAS accreditation is not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| I/S | Insufficient Sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| U/S | Unsuitable sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| n/t | Not tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <   | means "less than"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| >   | means "greater than"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| LOD | <p>LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.</p> <p>Soil sample results are expressed on an air dried basis (dried at &lt; 30°C), and are uncorrected for inert material removed.</p> <p>ELAB are unable to provide an interpretation or opinion on the content of this report. The results relate only to the sample received.</p> <p>PCB congener results may include any coeluting PCBs</p> <p>Uncertainty of measurement for the determinands tested are available upon request Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.</p> |

### Deviation Codes

|   |                                                          |
|---|----------------------------------------------------------|
| a | No date of sampling supplied                             |
| b | No time of sampling supplied (Waters Only)               |
| c | Sample not received in appropriate containers            |
| d | Sample not received in cooled condition                  |
| e | The container has been incorrectly filled                |
| f | Sample age exceeds stability time (sampling to receipt)  |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

### Sample Retention and Disposal

All soil samples will be retained for a period of one month  
 All water samples will be retained for 7 days following the date of the test report  
 Charges may apply to extended sample storage

### TPH Classification - HWOL Acronym System

|       |                                                                     |
|-------|---------------------------------------------------------------------|
| HS    | Headspace analysis                                                  |
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU    | Clean-up - e.g. by florisil, silica gel                             |
| 1D    | GC - Single coil gas chromatography                                 |
| Total | Aliphatics & Aromatics                                              |
| AL    | Aliphatics only                                                     |
| AR    | Aromatics only                                                      |
| 2D    | GC-GC - Double coil gas chromatography                              |
| #1    | EH_Total but with humics mathematically subtracted                  |
| #2    | EH_Total but with fatty acids mathematically subtracted             |
| _     | Operator - underscore to separate acronyms (exception for +)        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total  |
| MS    | Mass Spectrometry                                                   |



Unit A2  
Windmill Road  
Ponswood Industrial Estate  
St Leonards on Sea  
East Sussex  
TN38 9BY  
Telephone: (01424) 718618

[cs@elab-uk.co.uk](mailto:cs@elab-uk.co.uk)  
[info@elab-uk.co.uk](mailto:info@elab-uk.co.uk)

---

**THE ENVIRONMENTAL LABORATORY LTD**

---

**Analytical Report Number:** 23-49684

**Issue:** 1

**Date of Issue:** 31/08/2023

**Contact:** Michael Gillman

**Customer Details:** Statom Group Ltd  
Statom House  
795 London Road  
Grays  
EssexRM20 3LH

**Quotation No:** Q22-03554

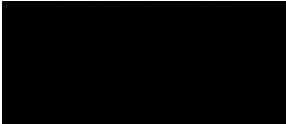
**Order No:** 170-59214 BM

**Customer Reference:** Not Supplied

**Date Received:** 23/08/2023

**Date Approved:** 31/08/2023

**Details:** Firs Farm

**Approved by:** 

Tim Reeve, Quality Officer

---

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

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This report may only be reproduced in full

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## Sample Summary

Report No.: 23-49684, issue number 1

| Elab No. | Client's Ref. | Date Sampled | Date Scheduled | Description | Deviations |
|----------|---------------|--------------|----------------|-------------|------------|
| 335556   | 1             | 21/08/2023   | 23/08/2023     |             |            |
| 335557   | 2             | 21/08/2023   | 23/08/2023     |             |            |



## Results Summary

Report No.: 23-49684, issue number 1

|                    |            |            |
|--------------------|------------|------------|
| ELAB Reference     | 335556     | 335557     |
| Customer Reference |            |            |
| Sample ID          |            |            |
| Sample Type        | WATER      | WATER      |
| Sample Location    | 1          | 2          |
| Sample Depth (m)   |            |            |
| Sampling Date      | 21/08/2023 | 21/08/2023 |

| Determinand                       | Codes | Units     | LOD |            |            |
|-----------------------------------|-------|-----------|-----|------------|------------|
| <b>Frisbee Monitoring Station</b> |       |           |     |            |            |
| Date Monitoring Started           | N     | -         | 0   | 14/08/2023 | 14/08/2023 |
| Date Monitoring Finished          | N     | -         | 0   | 21/08/2023 | 21/08/2023 |
| Number of Days Exposed            | N     | Days      | 0   | 7          | 7          |
| Total insoluble solids            | N     | mg        | 0.1 | 0.6        | 0.2        |
| Total Dust Deposition             | N     | mg/m2/day | 0.1 | 2.0        | 0.6        |



## Report Information

Report No.: 23-49684, issue number 1

### Key

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U   | hold UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| M   | hold MCERTS and UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| N   | do not currently hold UKAS accreditation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ^   | MCERTS accreditation not applicable for sample matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| *   | UKAS accreditation not applicable for sample matrix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| S   | Subcontracted to approved laboratory UKAS Accredited for the test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| SM  | Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| NS  | Subcontracted to approved laboratory. UKAS accreditation is not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| I/S | Insufficient Sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| U/S | Unsuitable sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| n/t | Not tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <   | means "less than"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| >   | means "greater than"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| LOD | <p>LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.</p> <p>Soil sample results are expressed on an air dried basis (dried at &lt; 30°C), and are uncorrected for inert material removed.</p> <p>ELAB are unable to provide an interpretation or opinion on the content of this report. The results relate only to the sample received.</p> <p>PCB congener results may include any coeluting PCBs</p> <p>Uncertainty of measurement for the determinands tested are available upon request</p> <p>Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.</p> |

### Deviation Codes

|   |                                                          |
|---|----------------------------------------------------------|
| a | No date of sampling supplied                             |
| b | No time of sampling supplied (Waters Only)               |
| c | Sample not received in appropriate containers            |
| d | Sample not received in cooled condition                  |
| e | The container has been incorrectly filled                |
| f | Sample age exceeds stability time (sampling to receipt)  |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

### Sample Retention and Disposal

All soil samples will be retained for a period of one month  
 All water samples will be retained for 7 days following the date of the test report  
 Charges may apply to extended sample storage

### TPH Classification - HWOL Acronym System

|       |                                                                     |
|-------|---------------------------------------------------------------------|
| HS    | Headspace analysis                                                  |
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU    | Clean-up - e.g. by florisil, silica gel                             |
| 1D    | GC - Single coil gas chromatography                                 |
| Total | Aliphatics & Aromatics                                              |
| AL    | Aliphatics only                                                     |
| AR    | Aromatics only                                                      |
| 2D    | GC-GC - Double coil gas chromatography                              |
| #1    | EH_Total but with humics mathematically subtracted                  |
| #2    | EH_Total but with fatty acids mathematically subtracted             |
| _     | Operator - underscore to separate acronyms (exception for +)        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total  |
| MS    | Mass Spectrometry                                                   |

# **Appendix G**

## **ITP Sign Off Sheets**

**Statom Group Limited**

Statom House, 795 London Road, Grays, Essex, RM20 3LH

Tel: 01708 222 777

[www.statom.co.uk](http://www.statom.co.uk)

Registered in England and Wales

Company No: 8785228 VAT 177634867

| To organise, control and document necessary inspection and testing stages throughout the works |                                     |                          |                                                                                                                                                          |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| JOB DETAILS                                                                                    |                                     |                          |                                                                                                                                                          |
| Project No.                                                                                    | ST176                               | Project Title            | Boorley Gardens Park Farm Parcel 1D                                                                                                                      |
| Start Date                                                                                     | 31/07/2023                          | End Date                 | 25/08/2023                                                                                                                                               |
| Area                                                                                           | B                                   | Inspectors name          | Bjorn Murphy MCIOB                                                                                                                                       |
| INSPECTIONS                                                                                    |                                     |                          |                                                                                                                                                          |
| ASPECT                                                                                         | Completed                           |                          | REMARK/COMMENTS                                                                                                                                          |
|                                                                                                | YES                                 | NO                       |                                                                                                                                                          |
| <b>Step 1</b>                                                                                  |                                     |                          |                                                                                                                                                          |
| Area Surveyed?                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Site Engineer has Surveyed the area existing levels are on the attached drawing.                                                                         |
| Photographs taken of area prior to works?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Photos taken and attached                                                                                                                                |
| Chemical samples taken for waste disposal?                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample wasn't needed waste has been identified as code 170503 (Asbestos) and will be loaded straight into Haulage Vehicle and the correct waste facility |
| Sample location Plan Provided                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample location Plan attached for reference, but no samples were taken in Area B                                                                         |
| <b>Step 2</b>                                                                                  |                                     |                          |                                                                                                                                                          |
| Area excavated out to natural ground?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes & photos taken                                                                                                                                       |
| Photographs taken of sub-formation?                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Photo Library document formed                                                                                                                       |
| Area inspected by Environmental Consultant & Signed off?                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Fiona Goode from GESL came to site on 10.08.2023 area A signed off and signed off sheet attached.                                                        |
| Sub-formation Surveyed                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, attached Survey                                                                                                                                     |
| <b>Phase 3</b>                                                                                 |                                     |                          |                                                                                                                                                          |
| Waste Transfer notes provided for waste disposal?                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes attached. The Asbestos area B was removed from site on the 09.08.2023                                                                                |
| Waste Disposal Log completed?                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | yes                                                                                                                                                      |
| All documentation formed for the final report to be issued                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes                                                                                                                                                      |

Not yet received

| SIGN OFF                |  |                            |                  |
|-------------------------|--|----------------------------|------------------|
| Statom                  |  | NAME<br>Bjorn Murphy MCIOB | DATE<br>29/08/23 |
| Client / Representative |  | NAME<br>Gemma Good         | DATE<br>31/8/23  |



|                                                                                                |                                     |                          |                                                                                                   |
|------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------|
| To organise, control and document necessary inspection and testing stages throughout the works |                                     |                          |                                                                                                   |
| <b>JOB DETAILS</b>                                                                             |                                     |                          |                                                                                                   |
| Project No.                                                                                    | ST176                               | Project Title            | Boorley Gardens Park Farm Parcel 1D                                                               |
| Start Date                                                                                     | 31/07/2023                          | End Date                 | 25/08/2023                                                                                        |
| Area                                                                                           | A                                   | Inspectors name          | Bjorn Murphy MCIOB                                                                                |
| <b>INSPECTIONS</b>                                                                             |                                     |                          |                                                                                                   |
| ASPECT                                                                                         | Completed<br>YES NO                 |                          | REMARK/COMMENTS                                                                                   |
| <b>Step 1</b>                                                                                  |                                     |                          |                                                                                                   |
| Area Surveyed?                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Site Engineer has Surveyed the area existing levels are on the attached drawing.                  |
| Photographs taken of area prior to works?                                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Photos taken and attached                                                                         |
| Chemical samples taken for waste disposal?                                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Samples taken and collected for testing on Tuesday 01/08/23                                       |
| Sample location Plan Provided                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample location Plan attached                                                                     |
| <b>Step 2</b>                                                                                  |                                     |                          |                                                                                                   |
| Area excavated out to natural ground?                                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes & photos taken                                                                                |
| Photographs taken of sub-formation?                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Photo Library document formed                                                                |
| Area inspected by Environmental Consultant & Signed off?                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Fiona Goode from GESL came to site on 10.08.2023 area A signed off and signed off sheet attached. |
| Sub-formation Surveyed                                                                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Attached Survey                                                                              |
| <b>Phase 3</b>                                                                                 |                                     |                          |                                                                                                   |
| Waste Transfer notes provided for waste disposal?                                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes <i>Not yet received</i>                                                                       |
| Waste Disposal Log completed?                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes — " —                                                                                         |
| All documentation formed for the final report to be issued                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes — " —                                                                                         |

|                         |  |                                   |                        |
|-------------------------|--|-----------------------------------|------------------------|
| <b>SIGN OFF</b>         |  |                                   |                        |
| Statom                  |  | NAME<br><i>Bjorn Murphy MCIOB</i> | DATE                   |
| Client / Representative |  | NAME<br><i>Gemma Good</i>         | DATE<br><i>31/8/23</i> |





To organise, control and document necessary inspection and testing stages throughout the works

### JOB DETAILS

|             |            |                 |                                     |
|-------------|------------|-----------------|-------------------------------------|
| Project No. | ST176      | Project Title   | Boorley Gardens Park Farm Parcel 1D |
| Start Date  | 31/07/2023 | End Date        | 24/08/2023                          |
| Area        | C          | Inspectors name | Bjorn Murphy MCIOB                  |

### INSPECTIONS

| ASPECT | Completed |    | REMARK/COMMENTS |
|--------|-----------|----|-----------------|
|        | YES       | NO |                 |

#### Step 1

|                                            |                                     |                          |                                                                                  |
|--------------------------------------------|-------------------------------------|--------------------------|----------------------------------------------------------------------------------|
| Area Surveyed?                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Site Engineer has Surveyed the area existing levels are on the attached drawing. |
| Photographs taken of area prior to works?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Photos taken and attached                                                        |
| Chemical samples taken for waste disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Samples taken and collected for testing on Tuesday 01/08/23                      |
| Sample location Plan Provided              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample location Plan attached                                                    |

#### Step 2

|                                                          |                                     |                          |                                                                                                   |
|----------------------------------------------------------|-------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------|
| Area excavated out to natural ground?                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes & photos taken                                                                                |
| Photographs taken of sub-formation?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Photo Library document formed                                                                |
| Area inspected by Environmental Consultant & Signed off? | <input type="checkbox"/>            | <input type="checkbox"/> | Fiona Goode from GESL came to site on 10.08.2023 area A signed off and signed off sheet attached. |
| Sub-formation Surveyed                                   | <input type="checkbox"/>            | <input type="checkbox"/> | Yes, Attached Survey                                                                              |

#### Phase 3

|                                                            |                          |                          |                      |
|------------------------------------------------------------|--------------------------|--------------------------|----------------------|
| Waste Transfer notes provided for waste disposal?          | <input type="checkbox"/> | <input type="checkbox"/> | Yes NOT YET RECEIVED |
| Waste Disposal Log completed?                              | <input type="checkbox"/> | <input type="checkbox"/> | Yes " "              |
| All documentation formed for the final report to be issued | <input type="checkbox"/> | <input type="checkbox"/> | Yes " "              |

### SIGN OFF

|                         |  |                            |                  |
|-------------------------|--|----------------------------|------------------|
| Statom                  |  | NAME<br>Bjorn Murphy MCIOB | DATE<br>29/08/23 |
| Client / Representative |  | NAME<br>G. GOOD            | DATE<br>31/8/23  |





To organise, control and document necessary inspection and testing stages throughout the works

## JOB DETAILS

|             |            |                 |                                     |
|-------------|------------|-----------------|-------------------------------------|
| Project No. | ST176      | Project Title   | Boorley Gardens Park Farm Parcel 1D |
| Start Date  | 31/07/2023 | End Date        | 25/08/2023                          |
| Area        | D          | Inspectors name | Bjorn Murphy MCIOB                  |

## INSPECTIONS

| ASPECT                                                     | Completed                           |                          | REMARK/COMMENTS                                                                                   |
|------------------------------------------------------------|-------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------|
|                                                            | YES                                 | NO                       |                                                                                                   |
| <b>Step 1</b>                                              |                                     |                          |                                                                                                   |
| Area Surveyed?                                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Site Engineer has Surveyed the area existing levels are on the attached drawing.                  |
| Photographs taken of area prior to works?                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Photos taken and attached                                                                         |
| Chemical samples taken for waste disposal?                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Samples taken and collected for testing on Tuesday 01/08/23                                       |
| Sample location Plan Provided                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample location Plan attached                                                                     |
| <b>Step 2</b>                                              |                                     |                          |                                                                                                   |
| Area excavated out to natural ground?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes & photos taken                                                                                |
| Photographs taken of sub-formation?                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Photo Library document formed                                                                |
| Area inspected by Environmental Consultant & Signed off?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Fiona Goode from GESL came to site on 10.08.2023 area A signed off and signed off sheet attached. |
| Sub-formation Surveyed                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Attached Survey                                                                              |
| <b>Phase 3</b>                                             |                                     |                          |                                                                                                   |
| Waste Transfer notes provided for waste disposal?          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes NOT YET RECEIVED                                                                              |
| Waste Disposal Log completed?                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes                                                                                               |
| All documentation formed for the final report to be issued | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes                                                                                               |

## SIGN OFF

|                         |      |      |                    |      |          |
|-------------------------|------|------|--------------------|------|----------|
| Statom                  |      | NAME | Bjorn Murphy MCIOB | DATE | 28/08/23 |
| Client / Representative | SIGN | NAME |                    | DATE |          |



To organise, control and document necessary inspection and testing stages throughout the works

### JOB DETAILS

|             |            |                 |                                        |
|-------------|------------|-----------------|----------------------------------------|
| Project No. | ST176      | Project Title   | Boorley Gardens Park Farm<br>Parcel 1D |
| Start Date  | 31/07/2023 | End Date        | 25/08/2023                             |
| Area        | E          | Inspectors name | Bjorn Murphy MCIOB                     |

### INSPECTIONS

| ASPECT | Completed |    | REMARK/COMMENTS |
|--------|-----------|----|-----------------|
|        | YES       | NO |                 |

#### Step 1

|                                            |                                     |                          |                                                                                  |
|--------------------------------------------|-------------------------------------|--------------------------|----------------------------------------------------------------------------------|
| Area Surveyed?                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Site Engineer has Surveyed the area existing levels are on the attached drawing. |
| Photographs taken of area prior to works?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Photos taken and attached                                                        |
| Chemical samples taken for waste disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Samples taken and collected for testing on Tuesday 01/08/23                      |
| Sample location Plan Provided              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample location Plan attached                                                    |

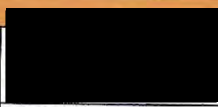
#### Step 2

|                                                          |                                     |                          |                                                                                                                                                        |
|----------------------------------------------------------|-------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Area excavated out to natural ground?                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes & photos taken                                                                                                                                     |
| Photographs taken of sub-formation?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Photo Library document formed                                                                                                                     |
| Area inspected by Environmental Consultant & Signed off? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | GESL came and inspected on 24/08/2023 and was happy to remove the Tarmac layer back to the tram layer which is sitting on the existing Natural ground. |
| Sub-formation Surveyed                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes, Attached Survey                                                                                                                                   |

#### Phase 3

|                                                            |                                     |                          |                             |
|------------------------------------------------------------|-------------------------------------|--------------------------|-----------------------------|
| Waste Transfer notes provided for waste disposal?          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes <i>NOT YET RECEIVED</i> |
| Waste Disposal Log completed?                              | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes <i>———</i>              |
| All documentation formed for the final report to be issued | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Yes <i>———</i>              |

### SIGN OFF

|                         |                                                                                     |                            |                  |
|-------------------------|-------------------------------------------------------------------------------------|----------------------------|------------------|
| Statom                  |  | NAME<br>Bjorn Murphy MCIOB | DATE<br>29/08/23 |
| Client / Representative | SIGN                                                                                | NAME                       | DATE             |



# STATOM GROUP

REMEDIATION • GROUNDWORKS • STRUCTURES

ST176 Park Farm Boorley Gardens Parcel 1D Environmental Consultant Area QA Sign off.



| Area A                   | Area B                   | Area C                   | Area D                   | Area E                   |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Yes/ <del>No</del><br>FG | Yes/ <del>No</del><br>FG | Yes/ <del>No</del><br>FG | Yes/ <del>No</del><br>FG | Yes/ <del>No</del><br>FG |

| SIGN OFF                 |                    |                      |                  |
|--------------------------|--------------------|----------------------|------------------|
| Statom                   |                    | NAME<br>Bryan Murphy | DATE<br>10-08-23 |
| Environmental Consultant | SIGN<br>[Redacted] | NAME<br>Fiona Goode  | DATE<br>10/08/23 |



# **Appendix H**

## **Survey Plans**

### **Statom Group Limited**

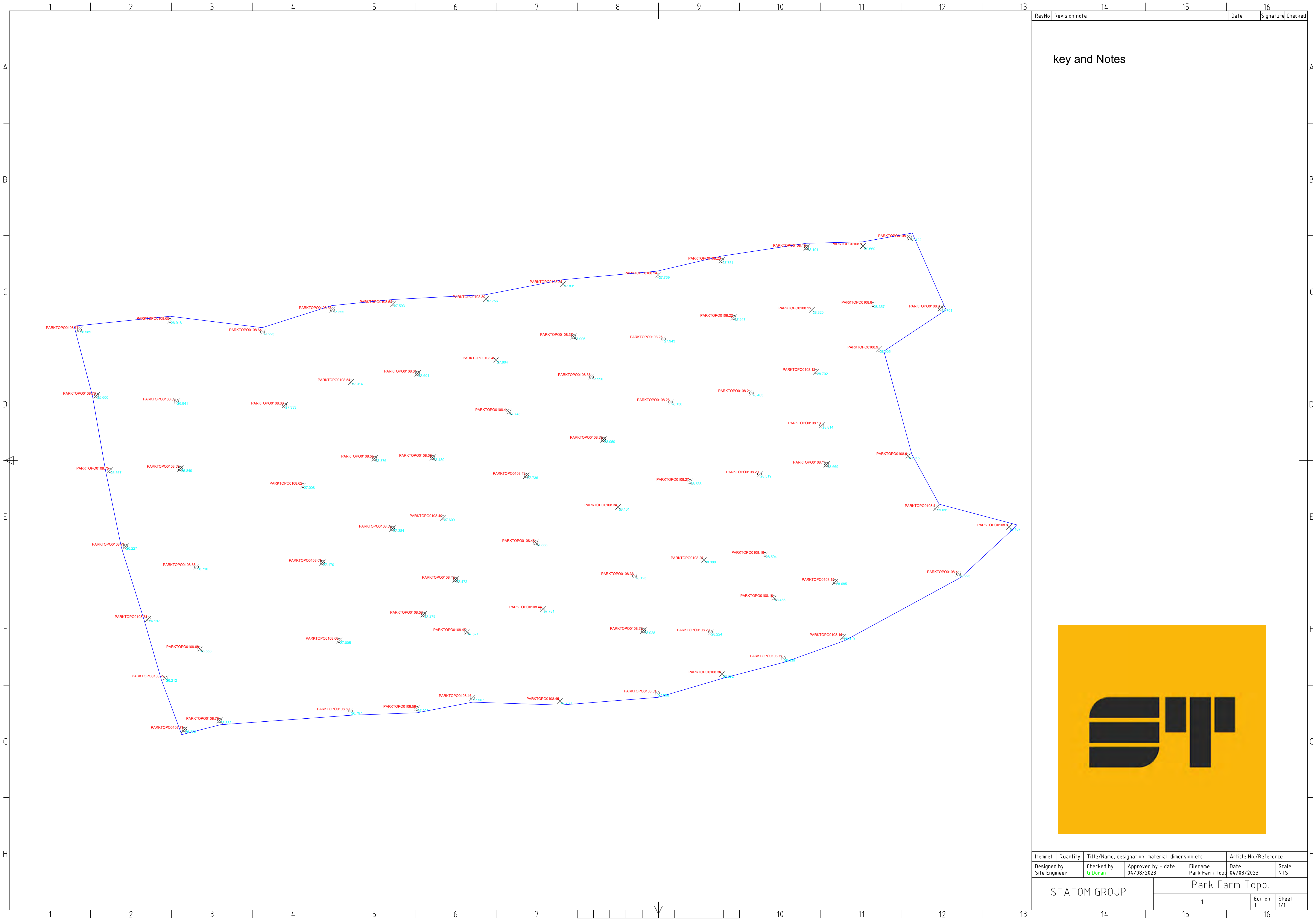
Statom House, 795 London Road, Grays, Essex, RM20 3LH

Tel: 01708 222 777

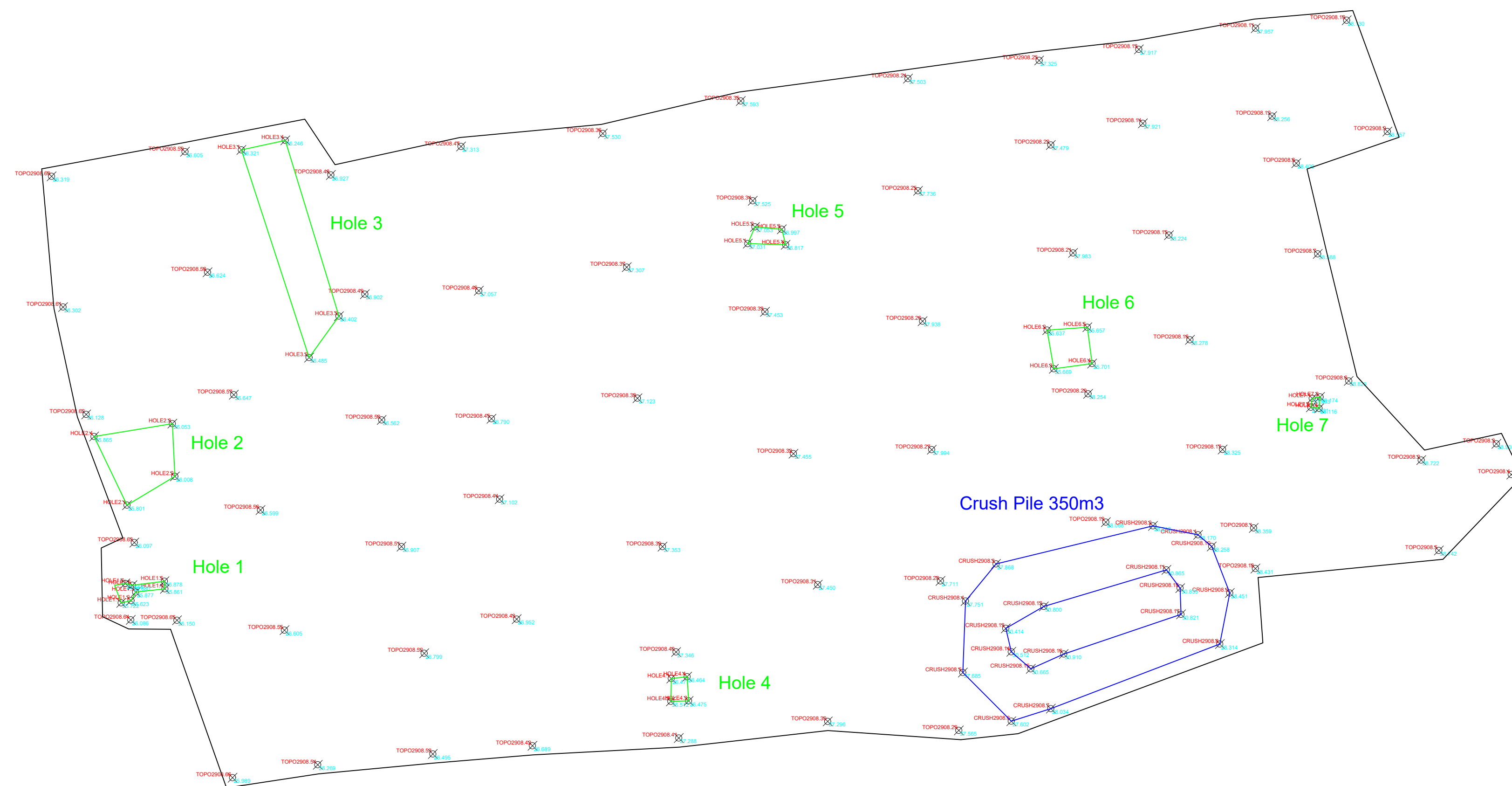
[www.statom.co.uk](http://www.statom.co.uk)

Registered in England and Wales

Company No: 8785228 VAT 177634867







## key and Notes



| Itemref                      | Quantity              | Title/Name, designation, material, dimension etc |                            |                    | Article No./Reference |  |  |
|------------------------------|-----------------------|--------------------------------------------------|----------------------------|--------------------|-----------------------|--|--|
| Designed by<br>Site Engineer | Checked by<br>G Doran | Approved by - date<br>29/08/2023                 | Filename<br>Park Topo 2908 | Date<br>29/08/2023 | Scale<br>NTS          |  |  |
| STATOM GROUP                 |                       |                                                  | Park Final Topo            |                    |                       |  |  |
|                              |                       |                                                  | 1                          | Edition<br>1       | Sheet<br>1/1          |  |  |

## **APPENDIX B**

Site Diary Inspection Records of Reduced Dig



Project No. GE20346

Project Name Boorley Gardens

Client Jackson Rowe

Engineers

 Fiona Goode

[fiona.goode@gesl.net](mailto:fiona.goode@gesl.net)

Location Boorley Green

Date 10/08/2023

1 record

|             |                                  |
|-------------|----------------------------------|
| Date & Time | 10/08/2023, 10:19                |
| Location    | 50° 56' 0.768" N 1° 17' 6.059" W |
| Remarks     | Reduced Dig                      |
| Weather     | Sunny, slight breeze, dry        |

19 records

Photograph



|             |                    |
|-------------|--------------------|
| Description | Reduced dig Area A |
|-------------|--------------------|

Photograph



DescriptionReduced Dig Area A

Photograph



DescriptionReduced Dig Area A

Photograph



DescriptionReduced Dig Area A

Photograph





Description Reduced Dig Area A

Photograph



Description Reduced dig Area A

Photograph



Description Reduced dig Area A

Photograph

|            |               |                                                                                      |                    |
|------------|---------------|--------------------------------------------------------------------------------------|--------------------|
| Site Diary | Photograph(s) |     |                    |
|            |               | Description                                                                          | Reduced Dig Area A |
|            |               | Photograph                                                                           |                    |
|            |               |   |                    |
|            | Photograph(s) | Description                                                                          | Reduced Dig Area A |
|            |               | Photograph                                                                           |                    |
|            |               |  |                    |
|            |               | Description                                                                          | Sign               |
|            |               | Photograph                                                                           |                    |
|            |               |                                                                                      |                    |





Description                      Reduced dig Area C

Photograph



Description                      Reduced dig Area C

Photograph



Description                      Area C tank

Photograph



Description

Photograph



Description

Reduced dig Area D

Photograph



Description

Reduced dig Area D

Photograph





Description                      Reduced dig Area D

Photograph



Description                      Statom area plan for waste samples

Photograph



Description                      Statom remediation areas

Time                                      0 records

|                                                                                               |                                                                |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Project No.                                                                                   | GE20346                                                        |
| Project Name                                                                                  | Boorley Gardens                                                |
| Client                                                                                        | Jackson Rowe                                                   |
| Engineers                                                                                     |                                                                |
|  Fiona Goode | <a href="mailto:fiona.goode@gesl.net">fiona.goode@gesl.net</a> |
| Location                                                                                      | Boorley Green                                                  |
| Date                                                                                          | 24/08/2023                                                     |

1 record

|             |                                                     |
|-------------|-----------------------------------------------------|
| Date & Time | 24/08/2023, 10:47                                   |
| Location    | 50° 55' 59.467" N 1° 17' 3.84" W                    |
| Remarks     | Inspection of reduced dig completed across the site |
| Weather     | Sunny, breezy, dry                                  |

11 records

## Photograph



|             |                    |
|-------------|--------------------|
| Description | Area C reduced dig |
|-------------|--------------------|

## Photograph



Description                      Area C reduced dig

Photograph



Description                      Area C reduced dig

Photograph



Description                      Area C reduced dig

Photograph



Site Diary

Photograph(s)



Description

Area A

Photograph



Description

Area A

Photograph



Description

Area A

Photograph





Description

Area A

Photograph



Description

Area A

Photograph



Description

Area C

Photograph



Description

Area plan

Time

0 records

## **APPENDIX C**

### Independent Geochemical Laboratory Test Results





Fiona Goode  
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i2 Analytical Ltd.  
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Croxley Green  
Business Park,  
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Herts,  
WD18 8YS

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e: reception@i2analytical.com

## Analytical Report Number : 23-50578

|                      |                 |                                                 |            |
|----------------------|-----------------|-------------------------------------------------|------------|
| Project / Site name: | Boorley Gardens | Samples received on:                            | 11/08/2023 |
| Your job number:     | GE20584         | Samples instructed on /<br>Analysis started on: | 11/08/2023 |
| Your order number:   | PO 6676         | Analysis completed by:                          | 18/08/2023 |
| Report Issue Number: | 1               | Report issued on:                               | 18/08/2023 |
| Samples Analysed:    | 6 soil samples  |                                                 |            |

Signed: \_\_\_\_\_

Joanna Wawrzeczko  
Reporting Specialist  
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting  
leachates - 2 weeks from reporting  
waters - 2 weeks from reporting  
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.  
Application of uncertainty of measurement would provide a range within which the true result lies.  
An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 23-50578  
Project / Site name: Boorley Gardens  
Your Order No: PO 6676

|                                         |       |                    |                         |               |               |               |               |               |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Lab Sample Number                       |       |                    |                         | 2779015       | 2779016       | 2779017       | 2779018       | 2779019       |
| Sample Reference                        |       |                    |                         | Base #1       | Base #2       | Base #3       | Base #4       | Base #5       |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Date Sampled                            |       |                    |                         | 11/08/2023    | 11/08/2023    | 11/08/2023    | 11/08/2023    | 11/08/2023    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |               |               |
| Stone Content                           | %     | 0.1                | NONE                    | < 0.1         | < 0.1         | < 0.1         | < 0.1         | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                    | 9.7           | 11            | 15            | 9.4           | 13            |
| Total mass of sample received           | kg    | 0.001              | NONE                    | 1.4           | 1.5           | 1.3           | 1.4           | 1.3           |

|                     |      |     |           |              |              |              |              |              |
|---------------------|------|-----|-----------|--------------|--------------|--------------|--------------|--------------|
| Asbestos in Soil    | Type | N/A | ISO 17025 | Not-detected | Not-detected | Not-detected | Not-detected | Not-detected |
| Asbestos Analyst ID | N/A  | N/A | N/A       | SSZ          | SSZ          | SSZ          | SSZ          | SSZ          |

#### General Inorganics

|                                                                         |          |         |        |       |        |       |        |        |
|-------------------------------------------------------------------------|----------|---------|--------|-------|--------|-------|--------|--------|
| pH - Automated                                                          | pH Units | N/A     | MCERTS | 7.6   | 5.3    | 7.4   | 7.2    | 7.6    |
| Total Cyanide                                                           | mg/kg    | 1       | MCERTS | < 1.0 | < 1.0  | < 1.0 | < 1.0  | < 1.0  |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1)         | mg/kg    | 2.5     | MCERTS | 310   | 190    | 460   | 56     | 89     |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | g/l      | 0.00125 | MCERTS | 0.157 | 0.0971 | 0.229 | 0.0282 | 0.0447 |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | mg/l     | 1.25    | MCERTS | 157   | 97.1   | 229   | 28.2   | 44.7   |
| Sulphide                                                                | mg/kg    | 1       | MCERTS | < 1.0 | 3.4    | < 1.0 | 1.6    | 2.6    |
| Water Soluble Chloride (2:1)                                            | mg/kg    | 1       | MCERTS | 81    | 24     | 17    | 5.7    | 8.4    |
| Elemental Sulphur                                                       | mg/kg    | 5       | MCERTS | 29    | < 5.0  | 10    | 11     | 17     |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1     | MCERTS | 0.9   | 1.2    | 0.6   | 0.7    | 0.8    |

#### Total Phenols

|                            |       |   |        |       |       |       |       |       |
|----------------------------|-------|---|--------|-------|-------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|-------|-------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |           |        |        |        |        |        |
|------------------------|-------|------|-----------|--------|--------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 0.05   | 0.07   | < 0.05 | < 0.05 | < 0.05 |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 0.06   | 0.06   | < 0.05 | < 0.05 | < 0.05 |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Chrysene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |

#### Total PAH

|                             |       |     |           |        |        |        |        |        |
|-----------------------------|-------|-----|-----------|--------|--------|--------|--------|--------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | < 0.80 | < 0.80 | < 0.80 | < 0.80 | < 0.80 |
|-----------------------------|-------|-----|-----------|--------|--------|--------|--------|--------|

Analytical Report Number: 23-50578  
Project / Site name: Boorley Gardens  
Your Order No: PO 6676

|                                         |               |                    |                      |               |               |
|-----------------------------------------|---------------|--------------------|----------------------|---------------|---------------|
| Lab Sample Number                       | 2779015       | 2779016            | 2779017              | 2779018       | 2779019       |
| Sample Reference                        | Base #1       | Base #2            | Base #3              | Base #4       | Base #5       |
| Sample Number                           | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Depth (m)                               | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Date Sampled                            | 11/08/2023    | 11/08/2023         | 11/08/2023           | 11/08/2023    | 11/08/2023    |
| Time Taken                              | None Supplied | None Supplied      | None Supplied        | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Limit of detection | Accreditation Status |               |               |

#### Heavy Metals / Metalloids

|                                    |       |      |        |       |       |       |       |       |
|------------------------------------|-------|------|--------|-------|-------|-------|-------|-------|
| Arsenic (aqua regia extractable)   | mg/kg | 1    | MCERTS | 7.2   | 8.1   | 7     | 5     | 6.2   |
| Beryllium (aqua regia extractable) | mg/kg | 0.06 | MCERTS | 0.29  | 0.35  | 0.18  | 0.28  | 0.57  |
| Boron (water soluble)              | mg/kg | 0.2  | MCERTS | 0.6   | 0.3   | 0.4   | 0.7   | 0.8   |
| Cadmium (aqua regia extractable)   | mg/kg | 0.2  | MCERTS | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| Chromium (hexavalent)              | mg/kg | 1.8  | MCERTS | < 1.8 | < 1.8 | < 1.8 | < 1.8 | < 1.8 |
| Chromium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 20    | 18    | 7.6   | 14    | 29    |
| Copper (aqua regia extractable)    | mg/kg | 1    | MCERTS | 11    | 7.9   | 8.1   | 7.6   | 6.8   |
| Lead (aqua regia extractable)      | mg/kg | 1    | MCERTS | 20    | 42    | 17    | 32    | 15    |
| Mercury (aqua regia extractable)   | mg/kg | 0.3  | MCERTS | < 0.3 | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)    | mg/kg | 1    | MCERTS | 4.9   | 4.6   | 2.2   | 3.4   | 5.2   |
| Selenium (aqua regia extractable)  | mg/kg | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vanadium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 27    | 30    | 15    | 22    | 37    |
| Zinc (aqua regia extractable)      | mg/kg | 1    | MCERTS | 30    | 31    | 200   | 25    | 28    |

#### Monoaromatics & Oxygenates

|                                    |       |   |        |       |       |       |       |       |
|------------------------------------|-------|---|--------|-------|-------|-------|-------|-------|
| Benzene                            | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene                            | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene                       | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| p & m-xylene                       | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| o-xylene                           | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| MTBE (Methyl Tertiary Butyl Ether) | µg/kg | 5 | NONE   | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

#### Petroleum Hydrocarbons

|                                                            |       |     |        |        |        |        |        |        |
|------------------------------------------------------------|-------|-----|--------|--------|--------|--------|--------|--------|
| TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS 1D_AL</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS 1D_AL</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS 1D_AL</sub>        | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH CU 1D_AL</sub>    | mg/kg | 1   | MCERTS | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH CU 1D_AL</sub>    | mg/kg | 2   | MCERTS | < 2.0  | < 2.0  | < 2.0  | < 2.0  | < 2.0  |
| TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH CU 1D_AL</sub>    | mg/kg | 8   | MCERTS | < 8.0  | < 8.0  | < 8.0  | < 8.0  | < 8.0  |
| TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH CU 1D_AL</sub>    | mg/kg | 8   | MCERTS | 9      | < 8.0  | < 8.0  | < 8.0  | < 8.0  |
| TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub> | mg/kg | 10  | NONE   | < 10   | < 10   | < 10   | < 10   | < 10   |

|                                                           |       |     |        |        |        |        |        |        |
|-----------------------------------------------------------|-------|-----|--------|--------|--------|--------|--------|--------|
| TPH-CWG - Aromatic >EC5 - EC7 <sub>HS 1D_AR</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aromatic >EC7 - EC8 <sub>HS 1D_AR</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aromatic >EC8 - EC10 <sub>HS 1D_AR</sub>        | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aromatic >EC10 - EC12 <sub>EH CU 1D_AR</sub>    | mg/kg | 1   | MCERTS | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| TPH-CWG - Aromatic >EC12 - EC16 <sub>EH CU 1D_AR</sub>    | mg/kg | 2   | MCERTS | < 2.0  | < 2.0  | < 2.0  | < 2.0  | < 2.0  |
| TPH-CWG - Aromatic >EC16 - EC21 <sub>EH CU 1D_AR</sub>    | mg/kg | 10  | MCERTS | < 10   | < 10   | < 10   | < 10   | < 10   |
| TPH-CWG - Aromatic >EC21 - EC35 <sub>EH CU 1D_AR</sub>    | mg/kg | 10  | MCERTS | < 10   | < 10   | < 10   | < 10   | < 10   |
| TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub> | mg/kg | 10  | NONE   | < 10   | < 10   | < 10   | < 10   | < 10   |

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-50578  
Project / Site name: Boorley Gardens  
Your Order No: PO 6676

| Lab Sample Number                       |       |                    |                         | 2779020       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|
| Sample Reference                        |       |                    |                         | Base #6       |
| Sample Number                           |       |                    |                         | None Supplied |
| Depth (m)                               |       |                    |                         | None Supplied |
| Date Sampled                            |       |                    |                         | 11/08/2023    |
| Time Taken                              |       |                    |                         | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |
| Stone Content                           | %     | 0.1                | NONE                    | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                    | 15            |
| Total mass of sample received           | kg    | 0.001              | NONE                    | 1.2           |

|                     |      |     |           |              |
|---------------------|------|-----|-----------|--------------|
| Asbestos in Soil    | Type | N/A | ISO 17025 | Not-detected |
| Asbestos Analyst ID | N/A  | N/A | N/A       | SSZ          |

#### General Inorganics

|                                                                         |          |         |        |        |
|-------------------------------------------------------------------------|----------|---------|--------|--------|
| pH - Automated                                                          | pH Units | N/A     | MCERTS | 7.4    |
| Total Cyanide                                                           | mg/kg    | 1       | MCERTS | < 1.0  |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1)         | mg/kg    | 2.5     | MCERTS | 140    |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | g/l      | 0.00125 | MCERTS | 0.0711 |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | mg/l     | 1.25    | MCERTS | 71.1   |
| Sulphide                                                                | mg/kg    | 1       | MCERTS | 1.7    |
| Water Soluble Chloride (2:1)                                            | mg/kg    | 1       | MCERTS | 18     |
| Elemental Sulphur                                                       | mg/kg    | 5       | MCERTS | < 5.0  |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1     | MCERTS | 2.6    |

#### Total Phenols

|                            |       |   |        |       |
|----------------------------|-------|---|--------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 |
|----------------------------|-------|---|--------|-------|

#### Speciated PAHs

|                        |       |      |           |        |
|------------------------|-------|------|-----------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | 0.14   |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 0.48   |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 0.45   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | 0.27   |
| Chrysene               | mg/kg | 0.05 | MCERTS    | 0.4    |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.53   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.23   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | 0.37   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | 0.22   |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | 0.24   |

#### Total PAH

|                             |       |     |           |      |
|-----------------------------|-------|-----|-----------|------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | 3.33 |
|-----------------------------|-------|-----|-----------|------|

Analytical Report Number: 23-50578  
Project / Site name: Boorley Gardens  
Your Order No: PO 6676

| Lab Sample Number                       | 2779020       |                    |                         |       |
|-----------------------------------------|---------------|--------------------|-------------------------|-------|
| Sample Reference                        | Base #6       |                    |                         |       |
| Sample Number                           | None Supplied |                    |                         |       |
| Depth (m)                               | None Supplied |                    |                         |       |
| Date Sampled                            | 11/08/2023    |                    |                         |       |
| Time Taken                              | None Supplied |                    |                         |       |
| Analytical Parameter<br>(Soil Analysis) | Units         | Limit of detection | Accreditation<br>Status |       |
| <b>Heavy Metals / Metalloids</b>        |               |                    |                         |       |
| Arsenic (aqua regia extractable)        | mg/kg         | 1                  | MCERTS                  | 7.6   |
| Beryllium (aqua regia extractable)      | mg/kg         | 0.06               | MCERTS                  | 0.48  |
| Boron (water soluble)                   | mg/kg         | 0.2                | MCERTS                  | 0.4   |
| Cadmium (aqua regia extractable)        | mg/kg         | 0.2                | MCERTS                  | < 0.2 |
| Chromium (hexavalent)                   | mg/kg         | 1.8                | MCERTS                  | < 1.8 |
| Chromium (aqua regia extractable)       | mg/kg         | 1                  | MCERTS                  | 17    |
| Copper (aqua regia extractable)         | mg/kg         | 1                  | MCERTS                  | 40    |
| Lead (aqua regia extractable)           | mg/kg         | 1                  | MCERTS                  | 57    |
| Mercury (aqua regia extractable)        | mg/kg         | 0.3                | MCERTS                  | < 0.3 |
| Nickel (aqua regia extractable)         | mg/kg         | 1                  | MCERTS                  | 9.8   |
| Selenium (aqua regia extractable)       | mg/kg         | 1                  | MCERTS                  | < 1.0 |
| Vanadium (aqua regia extractable)       | mg/kg         | 1                  | MCERTS                  | 29    |
| Zinc (aqua regia extractable)           | mg/kg         | 1                  | MCERTS                  | 120   |

#### Monoaromatics & Oxygenates

|                                    |       |   |        |       |
|------------------------------------|-------|---|--------|-------|
| Benzene                            | µg/kg | 5 | MCERTS | < 5.0 |
| Toluene                            | µg/kg | 5 | MCERTS | < 5.0 |
| Ethylbenzene                       | µg/kg | 5 | MCERTS | < 5.0 |
| p & m-xylene                       | µg/kg | 5 | MCERTS | < 5.0 |
| o-xylene                           | µg/kg | 5 | MCERTS | < 5.0 |
| MTBE (Methyl Tertiary Butyl Ether) | µg/kg | 5 | NONE   | < 5.0 |

#### Petroleum Hydrocarbons

|                                                            |       |     |        |        |
|------------------------------------------------------------|-------|-----|--------|--------|
| TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS 1D_AL</sub>         | mg/kg | 0.1 | NONE   | < 0.10 |
| TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS 1D_AL</sub>         | mg/kg | 0.1 | NONE   | < 0.10 |
| TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS 1D_AL</sub>        | mg/kg | 0.1 | NONE   | < 0.10 |
| TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH CU 1D_AL</sub>    | mg/kg | 1   | MCERTS | < 1.0  |
| TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH CU 1D_AL</sub>    | mg/kg | 2   | MCERTS | < 2.0  |
| TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH CU 1D_AL</sub>    | mg/kg | 8   | MCERTS | < 8.0  |
| TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH CU 1D_AL</sub>    | mg/kg | 8   | MCERTS | 8.4    |
| TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub> | mg/kg | 10  | NONE   | < 10   |

|                                                           |       |     |        |        |
|-----------------------------------------------------------|-------|-----|--------|--------|
| TPH-CWG - Aromatic >EC5 - EC7 <sub>HS 1D_AR</sub>         | mg/kg | 0.1 | NONE   | < 0.10 |
| TPH-CWG - Aromatic >EC7 - EC8 <sub>HS 1D_AR</sub>         | mg/kg | 0.1 | NONE   | < 0.10 |
| TPH-CWG - Aromatic >EC8 - EC10 <sub>HS 1D_AR</sub>        | mg/kg | 0.1 | NONE   | < 0.10 |
| TPH-CWG - Aromatic >EC10 - EC12 <sub>EH CU 1D_AR</sub>    | mg/kg | 1   | MCERTS | < 1.0  |
| TPH-CWG - Aromatic >EC12 - EC16 <sub>EH CU 1D_AR</sub>    | mg/kg | 2   | MCERTS | < 2.0  |
| TPH-CWG - Aromatic >EC16 - EC21 <sub>EH CU 1D_AR</sub>    | mg/kg | 10  | MCERTS | < 10   |
| TPH-CWG - Aromatic >EC21 - EC35 <sub>EH CU 1D_AR</sub>    | mg/kg | 10  | MCERTS | 23     |
| TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub> | mg/kg | 10  | NONE   | 27     |

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number : 23-50578

Project / Site name: Boorley Gardens

\* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

| Lab Sample Number | Sample Reference | Sample Number | Depth (m)     | Sample Description *             |
|-------------------|------------------|---------------|---------------|----------------------------------|
| 2779015           | Base #1          | None Supplied | None Supplied | Brown clay and sand with gravel. |
| 2779016           | Base #2          | None Supplied | None Supplied | Brown clay and sand with gravel. |
| 2779017           | Base #3          | None Supplied | None Supplied | Brown clay and sand with gravel. |
| 2779018           | Base #4          | None Supplied | None Supplied | Brown clay and sand with gravel. |
| 2779019           | Base #5          | None Supplied | None Supplied | Brown clay and sand with gravel. |
| 2779020           | Base #6          | None Supplied | None Supplied | Brown clay and sand with gravel. |

Analytical Report Number : 23-50578  
Project / Site name: Boorley Gardens

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

| Analytical Test Name                               | Analytical Method Description                                                                                                                                          | Analytical Method Reference                                                                                     | Method number | Wet / Dry Analysis | Accreditation Status |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------------------|
| Sulphate, water soluble, in soil (16hr extraction) | Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).              | In house method.                                                                                                | L038-PL       | D                  | MCERTS               |
| Metals in soil by ICP-OES                          | Determination of metals in soil by aqua-regia digestion followed by ICP-OES.                                                                                           | In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.                            | L038-PL       | D                  | MCERTS               |
| Asbestos identification in soil                    | Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.                                                 | In house method based on HSG 248                                                                                | A001-PL       | D                  | ISO 17025            |
| Boron, water soluble, in soil                      | Determination of water soluble boron in soil by hot water extract followed by ICP-OES.                                                                                 | In-house method based on Second Site Properties version 3                                                       | L038-PL       | D                  | MCERTS               |
| Chloride, water soluble, in soil                   | Determination of Chloride colorimetrically by discrete analyser.                                                                                                       | In house method.                                                                                                | L082-PL       | D                  | MCERTS               |
| Elemental sulphur in soil                          | Determination of elemental sulphur in soil by extraction in acetonitrile followed by HPLC.                                                                             | In-house method based on Secondsite Property Holdings Guidance for Assessing and Managing Potential             | L021-PL       | D                  | MCERTS               |
| Moisture Content                                   | Moisture content, determined gravimetrically. (30 oC)                                                                                                                  | In house method.                                                                                                | L019-UK/PL    | W                  | NONE                 |
| Monohydric phenols in soil                         | Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.                                                 | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar) | L080-PL       | W                  | MCERTS               |
| Speciated EPA-16 PAHs in soil                      | Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.                 | In-house method based on USEPA 8270                                                                             | L064-PL       | D                  | MCERTS               |
| pH in soil (automated)                             | Determination of pH in soil by addition of water followed by automated electrometric measurement.                                                                      | In house method.                                                                                                | L099-PL       | D                  | MCERTS               |
| Sulphide in soil                                   | Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode. | In-house method                                                                                                 | L010-PL       | D                  | MCERTS               |
| Stones content of soil                             | Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.                                            | In-house method based on British Standard Methods and MCERTS requirements.                                      | L019-UK/PL    | D                  | NONE                 |
| Total cyanide in soil                              | Determination of total cyanide by distillation followed by colorimetry.                                                                                                | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar) | L080-PL       | W                  | MCERTS               |
| Total organic carbon (Automated) in soil           | Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.                                          | In house method.                                                                                                | L009-PL       | D                  | MCERTS               |
| BTEX and MTBE in soil (Monoaromatics)              | Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited                                                                              | In-house method based on USEPA8260                                                                              | L073B-PL      | W                  | MCERTS               |
| TPHCWG (Soil)                                      | Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.                                                                                              | In-house method with silica gel split/clean up.                                                                 | L088/76-PL    | W                  | MCERTS               |

Analytical Report Number : 23-50578  
Project / Site name: Boorley Gardens

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

| Analytical Test Name             | Analytical Method Description                                                                                                                             | Analytical Method Reference | Method number | Wet / Dry Analysis | Accreditation Status |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------|--------------------|----------------------|
| Hexavalent chromium in soil      | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.                         | In-house method             | L080-PL       | W                  | MCERTS               |
| Sulphate, water soluble, in soil | Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent). | In house method.            | L038-PL       | D                  | MCERTS               |

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

| Acronym | Descriptions                                                           |
|---------|------------------------------------------------------------------------|
| HS      | Headspace Analysis                                                     |
| MS      | Mass spectrometry                                                      |
| FID     | Flame Ionisation Detector                                              |
| GC      | Gas Chromatography                                                     |
| EH      | Extractable Hydrocarbons (i.e. everything extracted by the solvent(s)) |
| CU      | Clean-up - e.g. by Florisil®, silica gel                               |
| 1D      | GC - Single coil/column gas chromatography                             |
| 2D      | GC-GC - Double coil/column gas chromatography                          |
| Total   | Aliphatics & Aromatics                                                 |
| AL      | Aliphatics                                                             |
| AR      | Aromatics                                                              |
| #1      | EH_2D_Total but with humics mathematically subtracted                  |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted             |
| -       | Operator - understore to separate acronyms (exception for +)           |
| +       | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total     |



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## Analytical Report Number : 23-53136

|                      |                 |                                                 |            |
|----------------------|-----------------|-------------------------------------------------|------------|
| Project / Site name: | Boorley Gardens | Samples received on:                            | 25/08/2023 |
| Your job number:     | GE20346         | Samples instructed on /<br>Analysis started on: | 25/08/2023 |
| Your order number:   | PO 6723         | Analysis completed by:                          | 04/09/2023 |
| Report Issue Number: | 1               | Report issued on:                               | 04/09/2023 |
| Samples Analysed:    | 3 soil samples  |                                                 |            |

Signed: 

Izabela Wójcik  
Reporting Specialist  
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

|           |                           |
|-----------|---------------------------|
| soils     | - 4 weeks from reporting  |
| leachates | - 2 weeks from reporting  |
| waters    | - 2 weeks from reporting  |
| asbestos  | - 6 months from reporting |

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.  
Application of uncertainty of measurement would provide a range within which the true result lies.  
An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 23-53136  
Project / Site name: Boorley Gardens  
Your Order No: PO 6723

|                                         |       |                    |                         |               |               |               |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|
| Lab Sample Number                       |       |                    |                         | 2792750       | 2792751       | 2792752       |
| Sample Reference                        |       |                    |                         | BASE #7       | BASE #8       | BASE #9       |
| Sample Number                           |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Depth (m)                               |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Date Sampled                            |       |                    |                         | 25/08/2023    | 25/08/2023    | 25/08/2023    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |
| Stone Content                           | %     | 0.1                | NONE                    | < 0.1         | < 0.1         | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                    | 8.3           | 7             | 7.4           |
| Total mass of sample received           | kg    | 0.001              | NONE                    | 1.3           | 1.2           | 1.1           |

|                     |      |     |           |              |              |              |
|---------------------|------|-----|-----------|--------------|--------------|--------------|
| Asbestos in Soil    | Type | N/A | ISO 17025 | Not-detected | Not-detected | Not-detected |
| Asbestos Analyst ID | N/A  | N/A | N/A       | DSO          | DSO          | DSO          |

#### General Inorganics

|                                                                         |          |         |        |        |        |        |
|-------------------------------------------------------------------------|----------|---------|--------|--------|--------|--------|
| pH - Automated                                                          | pH Units | N/A     | MCERTS | 8.1    | 7.4    | 6.7    |
| Total Cyanide                                                           | mg/kg    | 1       | MCERTS | < 1.0  | < 1.0  | < 1.0  |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1)         | mg/kg    | 2.5     | MCERTS | 22     | 110    | 32     |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | g/l      | 0.00125 | MCERTS | 0.0111 | 0.0568 | 0.0158 |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1 Leachate Equivalent) | mg/l     | 1.25    | MCERTS | 11.1   | 56.8   | 15.8   |
| Sulphide                                                                | mg/kg    | 1       | MCERTS | < 1.0  | < 1.0  | < 1.0  |
| Water Soluble Chloride (2:1)                                            | mg/kg    | 1       | MCERTS | 3.1    | 21     | 6.7    |
| Elemental Sulphur                                                       | mg/kg    | 5       | MCERTS | < 5.0  | < 5.0  | < 5.0  |
| Total Organic Carbon (TOC) - Automated                                  | %        | 0.1     | MCERTS | 0.8    | 0.6    | 0.5    |

#### Total Phenols

|                            |       |   |        |       |       |       |
|----------------------------|-------|---|--------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |           |        |        |        |
|------------------------|-------|------|-----------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Chrysene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 |

#### Total PAH

|                             |       |     |           |        |        |        |
|-----------------------------|-------|-----|-----------|--------|--------|--------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | < 0.80 | < 0.80 | < 0.80 |
|-----------------------------|-------|-----|-----------|--------|--------|--------|

Analytical Report Number: 23-53136  
Project / Site name: Boorley Gardens  
Your Order No: PO 6723

|                                         |               |                    |                      |
|-----------------------------------------|---------------|--------------------|----------------------|
| Lab Sample Number                       | 2792750       | 2792751            | 2792752              |
| Sample Reference                        | BASE #7       | BASE #8            | BASE #9              |
| Sample Number                           | None Supplied | None Supplied      | None Supplied        |
| Depth (m)                               | None Supplied | None Supplied      | None Supplied        |
| Date Sampled                            | 25/08/2023    | 25/08/2023         | 25/08/2023           |
| Time Taken                              | None Supplied | None Supplied      | None Supplied        |
| Analytical Parameter<br>(Soil Analysis) | Units         | Limit of detection | Accreditation Status |

#### Heavy Metals / Metalloids

|                                    |       |      |        |       |       |       |
|------------------------------------|-------|------|--------|-------|-------|-------|
| Arsenic (aqua regia extractable)   | mg/kg | 1    | MCERTS | 6.4   | 4.7   | 5.3   |
| Beryllium (aqua regia extractable) | mg/kg | 0.06 | MCERTS | 0.3   | 0.27  | 0.65  |
| Boron (water soluble)              | mg/kg | 0.2  | MCERTS | 0.4   | < 0.2 | 0.4   |
| Cadmium (aqua regia extractable)   | mg/kg | 0.2  | MCERTS | < 0.2 | < 0.2 | < 0.2 |
| Chromium (hexavalent)              | mg/kg | 1.8  | MCERTS | < 1.8 | < 1.8 | < 1.8 |
| Chromium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 17    | 13    | 33    |
| Copper (aqua regia extractable)    | mg/kg | 1    | MCERTS | 48    | 6.5   | 8.3   |
| Lead (aqua regia extractable)      | mg/kg | 1    | MCERTS | 24    | 30    | 12    |
| Mercury (aqua regia extractable)   | mg/kg | 0.3  | MCERTS | < 0.3 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)    | mg/kg | 1    | MCERTS | 3.6   | 3.1   | 7.2   |
| Selenium (aqua regia extractable)  | mg/kg | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 |
| Vanadium (aqua regia extractable)  | mg/kg | 1    | MCERTS | 26    | 20    | 43    |
| Zinc (aqua regia extractable)      | mg/kg | 1    | MCERTS | 30    | 15    | 43    |

#### Monoaromatics & Oxygenates

|                                    |       |   |        |       |       |       |
|------------------------------------|-------|---|--------|-------|-------|-------|
| Benzene                            | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 |
| Toluene                            | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene                       | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 |
| p & m-xylene                       | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 |
| o-xylene                           | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 |
| MTBE (Methyl Tertiary Butyl Ether) | µg/kg | 5 | NONE   | < 5.0 | < 5.0 | < 5.0 |

#### Petroleum Hydrocarbons

|                                                            |       |     |        |        |        |        |
|------------------------------------------------------------|-------|-----|--------|--------|--------|--------|
| TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS 1D_AL</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS 1D_AL</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS 1D_AL</sub>        | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH CU 1D_AL</sub>    | mg/kg | 1   | MCERTS | < 1.0  | < 1.0  | < 1.0  |
| TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH CU 1D_AL</sub>    | mg/kg | 2   | MCERTS | < 2.0  | < 2.0  | < 2.0  |
| TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH CU 1D_AL</sub>    | mg/kg | 8   | MCERTS | < 8.0  | < 8.0  | < 8.0  |
| TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH CU 1D_AL</sub>    | mg/kg | 8   | MCERTS | < 8.0  | < 8.0  | < 8.0  |
| TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS 1D_AL</sub> | mg/kg | 10  | NONE   | < 10   | < 10   | < 10   |

|                                                           |       |     |        |        |        |        |
|-----------------------------------------------------------|-------|-----|--------|--------|--------|--------|
| TPH-CWG - Aromatic >EC5 - EC7 <sub>HS 1D_AR</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aromatic >EC7 - EC8 <sub>HS 1D_AR</sub>         | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aromatic >EC8 - EC10 <sub>HS 1D_AR</sub>        | mg/kg | 0.1 | NONE   | < 0.10 | < 0.10 | < 0.10 |
| TPH-CWG - Aromatic >EC10 - EC12 <sub>EH CU 1D_AR</sub>    | mg/kg | 1   | MCERTS | < 1.0  | < 1.0  | < 1.0  |
| TPH-CWG - Aromatic >EC12 - EC16 <sub>EH CU 1D_AR</sub>    | mg/kg | 2   | MCERTS | < 2.0  | < 2.0  | < 2.0  |
| TPH-CWG - Aromatic >EC16 - EC21 <sub>EH CU 1D_AR</sub>    | mg/kg | 10  | MCERTS | < 10   | < 10   | < 10   |
| TPH-CWG - Aromatic >EC21 - EC35 <sub>EH CU 1D_AR</sub>    | mg/kg | 10  | MCERTS | < 10   | < 10   | < 10   |
| TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS 1D_AR</sub> | mg/kg | 10  | NONE   | < 10   | < 10   | < 10   |

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-53136

Project / Site name: Boorley Gardens

\* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

| Lab Sample Number | Sample Reference | Sample Number | Depth (m)     | Sample Description *                            |
|-------------------|------------------|---------------|---------------|-------------------------------------------------|
| 2792750           | BASE #7          | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation. |
| 2792751           | BASE #8          | None Supplied | None Supplied | Brown clay and sand with gravel.                |
| 2792752           | BASE #9          | None Supplied | None Supplied | Brown clay and sand with gravel.                |

Analytical Report Number : 23-53136  
Project / Site name: Boorley Gardens

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

| Analytical Test Name                               | Analytical Method Description                                                                                                                                          | Analytical Method Reference                                                                                     | Method number | Wet / Dry Analysis | Accreditation Status |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------------------|
| Sulphate, water soluble, in soil (16hr extraction) | Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).              | In house method.                                                                                                | L038-PL       | D                  | MCERTS               |
| Metals in soil by ICP-OES                          | Determination of metals in soil by aqua-regia digestion followed by ICP-OES.                                                                                           | In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.                            | L038-PL       | D                  | MCERTS               |
| Asbestos identification in soil                    | Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.                                                 | In house method based on HSG 248                                                                                | A001-PL       | D                  | ISO 17025            |
| Boron, water soluble, in soil                      | Determination of water soluble boron in soil by hot water extract followed by ICP-OES.                                                                                 | In-house method based on Second Site Properties version 3                                                       | L038-PL       | D                  | MCERTS               |
| Chloride, water soluble, in soil                   | Determination of Chloride colorimetrically by discrete analyser.                                                                                                       | In house method.                                                                                                | L082-PL       | D                  | MCERTS               |
| Elemental sulphur in soil                          | Determination of elemental sulphur in soil by extraction in acetonitrile followed by HPLC.                                                                             | In-house method based on Secondsite Property Holdings Guidance for Assessing and Managing Potential             | L021-PL       | D                  | MCERTS               |
| Moisture Content                                   | Moisture content, determined gravimetrically. (30 oC)                                                                                                                  | In house method.                                                                                                | L019-UK/PL    | W                  | NONE                 |
| Monohydric phenols in soil                         | Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.                                                 | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar) | L080-PL       | W                  | MCERTS               |
| Speciated EPA-16 PAHs in soil                      | Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.                 | In-house method based on USEPA 8270                                                                             | L064-PL       | D                  | MCERTS               |
| pH in soil (automated)                             | Determination of pH in soil by addition of water followed by automated electrometric measurement.                                                                      | In house method.                                                                                                | L099-PL       | D                  | MCERTS               |
| Sulphide in soil                                   | Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode. | In-house method                                                                                                 | L010-PL       | D                  | MCERTS               |
| Stones content of soil                             | Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.                                            | In-house method based on British Standard Methods and MCERTS requirements.                                      | L019-UK/PL    | D                  | NONE                 |
| Total cyanide in soil                              | Determination of total cyanide by distillation followed by colorimetry.                                                                                                | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar) | L080-PL       | W                  | MCERTS               |
| Total organic carbon (Automated) in soil           | Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.                                          | In house method.                                                                                                | L009-PL       | D                  | MCERTS               |
| BTEX and MTBE in soil (Monoaromatics)              | Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited                                                                              | In-house method based on USEPA8260                                                                              | L073B-PL      | W                  | MCERTS               |
| TPHCWG (Soil)                                      | Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.                                                                                              | In-house method with silica gel split/clean up.                                                                 | L088/76-PL    | W                  | MCERTS               |



Analytical Report Number : 23-53136  
Project / Site name: Boorley Gardens

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

| Analytical Test Name                             | Analytical Method Description                                                                                                                             | Analytical Method Reference            | Method number | Wet / Dry Analysis | Accreditation Status |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------|--------------------|----------------------|
| Hexavalent chromium in soil                      | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazine followed by colorimetry.                         | In-house method                        | L080-PL       | W                  | MCERTS               |
| D.O. for Gravimetric Quant if Screen/ID positive | Dependent option for Gravimetric Quant if Screen/ID positive scheduled.                                                                                   | In house asbestos methods A001 & A006. | A006-PL       | D                  | NONE                 |
| Sulphate, water soluble, in soil                 | Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent). | In house method.                       | L038-PL       | D                  | MCERTS               |

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

| Acronym | Descriptions                                                           |
|---------|------------------------------------------------------------------------|
| HS      | Headspace Analysis                                                     |
| MS      | Mass spectrometry                                                      |
| FID     | Flame Ionisation Detector                                              |
| GC      | Gas Chromatography                                                     |
| EH      | Extractable Hydrocarbons (i.e. everything extracted by the solvent(s)) |
| CU      | Clean-up - e.g. by Florisil®, silica gel                               |
| 1D      | GC - Single coil/column gas chromatography                             |
| 2D      | GC-GC - Double coil/column gas chromatography                          |
| Total   | Aliphatics & Aromatics                                                 |
| AL      | Aliphatics                                                             |
| AR      | Aromatics                                                              |
| #1      | EH_2D_Total but with humics mathematically subtracted                  |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted             |
| -       | Operator - understore to separate acronyms (exception for +)           |
| +       | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total     |