

Table S3.10 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Flare 1 shown on Plan 3026/A dated 27/02/2006	Temperature	As per LFTGN05 (v2, March 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.	
Gas engines 1-5, post turbo	NOx and CO	Quarterly	In accordance with Appendix C of LFTGN08, (v2, 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Where monitoring using hand-held, electrochemical equipment indicates an exceedance of the emissions standards specified in Table S3.2, these shall be used as action levels and the operator shall investigate the cause and take appropriate measures to reduce emissions.

Table S3.11 Leachate – other monitoring requirements				
Monitoring point reference or description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Operational Cells or Phases (Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.6)			At leachate compliance point as listed in table S3.1.	
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency	None
MEPP	Hazardous substances	Annually		None
MEPP	Depth to base (mAoD)	Annually		None
Non Operational Cells or Phases (Any cell or phases that have a final engineered cap agreed in accordance with condition 2.6)				
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Annually		
MEPP	Hazardous substances	Once every four years		None
MEPP	Depth to base (mAoD)	Annually		

Table S3.12 Surface water – other monitoring requirements				
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
MEPP	Ammoniacal nitrogen Chloride Suspended Solids Visual Oil and Grease pH electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit</u> (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency

Table S3.13 Process monitoring requirements				
Monitoring Point	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
Biofilter Monitoring Point as shown on Plan 3695-CAU-XX-XX-DR-V-1801	Moisture content, flow rate, nutrient levels, contaminant elimination	As required	As required	Biofilter should be checked and maintained to ensure appropriate temperature and moisture content on a daily basis. Monitoring equipment shall be available on-site and used as required.

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data		
Parameter	Reporting period	Period ends
Leachate and/ or groundwater level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to sewer As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.6	Every 3 months	31 March, 30 June, 30 September, 31 December
Particulate matter in ambient air. As required by schedule 3, table S3.7	Every 6 months	30 June, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.8	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S3.9	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.10	Every 3 months	31 March, 30 June, 30 September, 31 December
Trace gas monitoring	Every 12 months	31 December
Other leachate monitoring As specified by schedule 3, table S3.11	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.12	Every 12 months	31 December

Table S4.1 Reporting of monitoring data		
Parameter	Reporting period	Period ends
Process monitoring requirements As specified by Schedule 3, table S3.13	As agreed with the Environment Agency	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	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.

Table S4.2 Annual production/treatment	
Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass. Accepted from offsite for treatment at any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation. Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.9 monitoring) Methane generation rate (50%ile from a representative model)	Normalised cubic metres/year % methane v/v m3 /hr

Table S4.3 Performance Parameters			
Parameter	Frequency of assessment	Annual total	Unit
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas

Table S4.4 Reporting Forms		
Media/parameter	Reporting Format	Date of Form
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Sewer	Form Sewer 1 or other reporting format to be agreed in writing with the Environment Agency	[XX/XX/XXXX]
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Particulate matter	Form Particulate 1 or other reporting format to be agreed in writing with the Environment Agency	02/02/17
Waste Return	Waste Return Form RATS2E	02/02/17
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	02/02/17

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	

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours of detection	
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) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
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

(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	
To be notified within 24 hours of detection	
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.	

Name*	
Post	
Signature	
Date	

* 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.
- (a) “Cell layout drawing” means: A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:
- (i) the location of the new cell on the site;
 - (ii) the proposed level (Above Ordnance Datum) of the base of the excavation;
 - (iii) the proposed finished levels of all containment and leachate drainage layers;
 - (iv) the positions of leachate management infrastructure; and
 - (v) the positions of landfill gas infrastructure (if appropriate).
- (b) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:
- (i) changes to slope length and gradient within the cell;
 - (ii) new leachate or landfill gas infrastructure construction design;
 - (iii) slope stability issues such as new basal excavation level; and/or
 - (iv) depth of waste.

“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 New Cell or Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details of the New Cell or 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 New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“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 those Regulations have the same meanings as in those Regulations.

“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.

“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.

‘Hazardous property’ has the meaning in Annex III of the Waste Framework Directive.

“Hazardous substances” as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

‘Hazardous waste’ has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Landfill Infrastructure” means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

“Liquids” means any liquid other than leachate within the engineered landfill containment system.

“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.

“LFTGN 05” means Environment Agency Guidance for monitoring enclosed landfill gas flares.

“LFTGN 07” means Environment Agency Guidance on monitoring landfill gas surface emissions.

“LFTGN 08” means Environment Agency Guidance for monitoring landfill gas engines.

“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.

"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.

"Medicinal product" means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

"MEPP" Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

"M2" means Environment Agency Guidance Monitoring of stack emissions to air.

"New Cell" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"MEPP" Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"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.

"Pests" means Birds, Vermin and Insects.

"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 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).

"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).

"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.

‘Sustainably extracted’ means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

‘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.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

Where the following terms appear in the waste code list in Tables S2.1 or S2.2 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;

‘polychlorinated biphenyls and polychlorinated terphenyls’ (‘PCBs’) means PCBs as defined in Article 2(a) of Council Directive 96/59/EC’.

Article 2(a) says that ‘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;

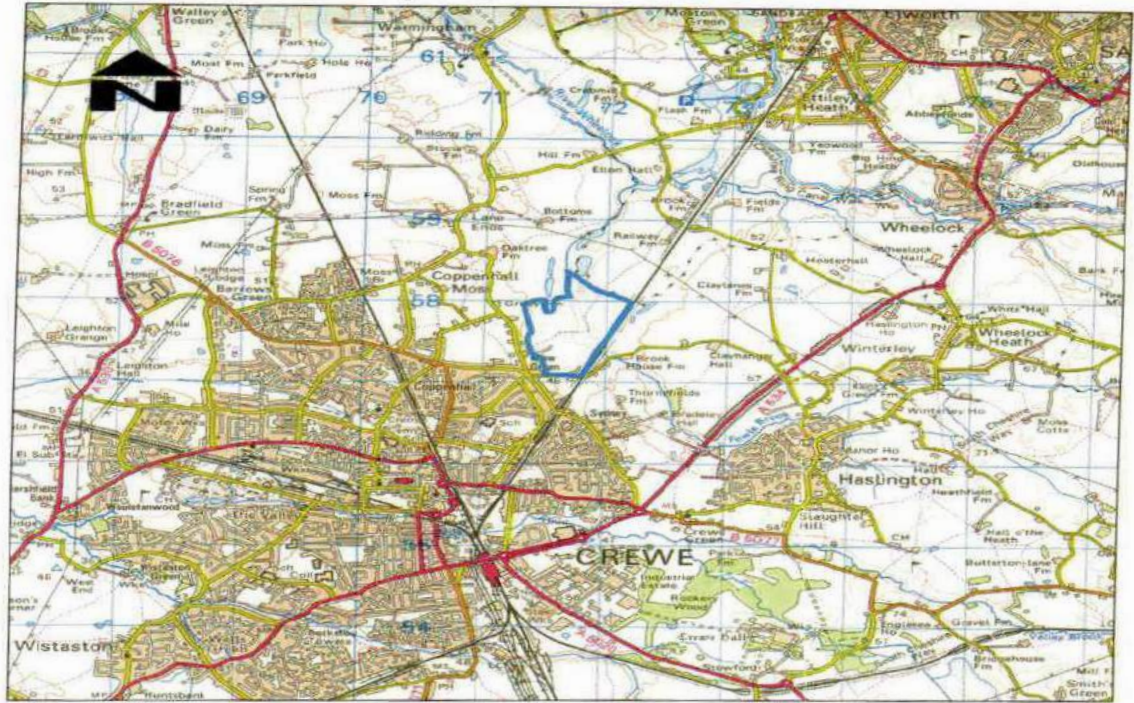
‘stabilisation’ means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

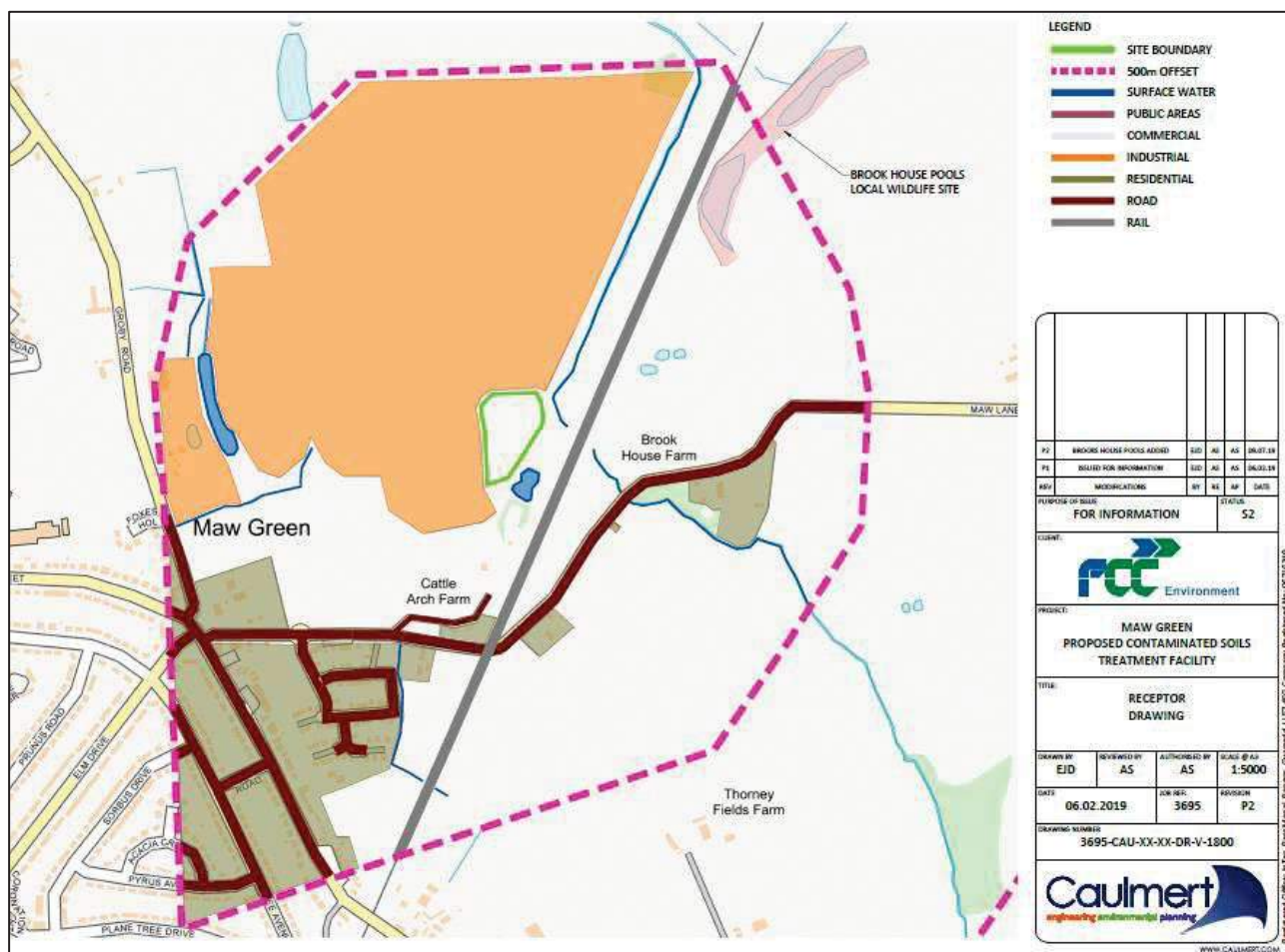
‘solidification’ means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

‘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

Schedule 2 - Site plan





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END OF PERMIT



**ENVIRONMENT
AGENCY**

Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Fletcher Bank Quarry Landfill Site

**Marshalls Mono Limited
Fletcher Bank
Ramsbottom
Bury
Lancashire
BL0 0DD**

**Permit number
DP3638ST**

Permit Number DP3638ST

Fletcher Bank Quarry Landfill Site

Fletcher Bank Quarry Landfill Site

Permit Number DP3638ST

Introductory note

This introductory note does not form a part of the permit

The main features of the installation are as follows.

This is a Permit to operate a landfill located to the east of Ramsbottom, Lancashire at national grid reference SD 804 173. The Operator of this landfill is Marshalls Mono Limited. The site is surrounded by agricultural land to the north, west and east. To the south of the site is a concrete works and quarry area. The nearest residential receptors are approximately 50m from the installation boundary to the north west of the site. The boundary between Bury Metropolitan Borough Council and Lancashire County Council goes through the centre of the site.

The landfill is a waste disposal facility for non-hazardous wastes. Quarrying has taken place at the site since the 1880's and the site continues to be an operational quarry. The overall capacity of the installation is 1.6 million cubic metres. The Permit limits the disposal of waste to 150,000 tonnes per year. The site is to be operated as 6 separate cells.

The main emissions from the site are likely to be noise and vibration, dust and mud.

Due to the permitted waste types there is no active management of landfill gas. Each cell will be fitted with monitoring wells to monitor the presence of landfill gas and leachate. In addition monitoring boreholes are installed externally to the site to allow monitoring of groundwater and landfill gas migration.

Status log of the permit		
Detail	Date	Response Date
Application DP3638ST	Received 09/05/2005	
Response to Schedule 4 notice	Request dated 01/02/2006	Response dated 03/05/2006
Response to request for information	Request dated 09/05/2006	Response dated 12/05/2006 and 22/05/2006
Permit determined	06/03/2007	

End of Introductory Note

Permit

**Pollution Prevention and Control (England and Wales) Regulations 2000
Landfill (England and Wales) Regulations 2002**

Permit

**Permit number
DP3638ST**

The Environment Agency (the Agency) in exercise of its powers under regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) and regulation 6 of the Landfill (England and Wales) Regulations 2002 (SI 2002 No.1559) hereby authorises **Marshalls Mono Limited** ("the operator"),

whose registered office is

Birkby Grange

85 Birkby Hall Road

Birkby

Huddersfield

HD2 2YA

Company registration number 509579

to operate an installation at

Fletcher Bank Quarry Landfill Site

Fletcher Bank

Ramsbottom

Bury

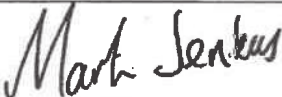
Lancashire

BL0 0DD

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

Signed

Date

	8th March 2007
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Martin Jenkins, Permitting Team Leader, Warrington Strategic Permitting Group

Authorised to sign on behalf of the Agency

**Permit Number
DP3638ST**

Fletcher Bank Quarry Landfill Site

Conditions

1. Management

1.1 General management

1.1.1 The activities shall be managed and operated:

- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and
- (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

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.

1.2 Accidents that may cause pollution

1.2.1 The operator shall:

- (a) maintain and implement an accident management plan;
- (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
- (c) make any appropriate changes to the plan identified by a review.

1.3 Finance

1.3.1 No activities authorised by this permit shall be commenced unless the Operator has entered into an Agreement with the Agency to secure financial provision to meet the obligations under this Permit, and the Operator has given prior written notice to the Agency of the intention to commence operations at the site.

1.3.2 The financial provision for meeting the obligations under this permit provided under condition 1.3.1 shall thereafter be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Agency.

1.3.3 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 1.3.1; and
- (c) the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

1.4.1 The operator shall:

- (a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (b) Implement any appropriate measures identified by a review.

1.5 Site security

- 1.5.1 Site security measures shall prevent unauthorised access to the site, as far as practicable.

2. Operations

2.1 Permitted activities

- 2.1.1 The operator is 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 red on the site plan at schedule 2 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 Agency.

2.5 Improvement programme

- 2.5.1 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 Agency.
- 2.5.2 Except in the case of an improvement which consists only of a submission to the Agency, the operator shall notify the Agency within 14 days of completion of each improvement.

2.6 Pre-operational conditions.

- 2.6.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.7 Engineering

- 2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.2 The construction of a new cell 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 Agency.
- 2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.7.4 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 Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.5 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 Agency.
- 2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill Infrastructure.
- 2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant landfill Infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.
- 2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the 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.

2.8 Waste acceptance

- 2.8.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 3, and
 - (b) they are non-hazardous waste, and
 - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
 - (d) they are not shredded used tyres, and
 - (e) they are not liquid waste (including waste waters but excluding sludge), and

- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
- (g) all the relevant waste acceptance procedures set out in schedule 1 of the Landfill Regulations have been completed, and
- (h) they fulfil the relevant waste acceptance criteria, and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (j) from 30th October 2007 they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment,
- (k) any code beginning with 07 05 and 16 03 shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.8.2 The operator shall visually inspect:

- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
- (b) waste at the point of deposit;

and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.

2.8.3 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.

2.8.4 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.8.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing MM/FBQ/PPC-DESID 5A.

2.8.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.

2.8.7 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 recovery 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.

2.9 Leachate levels

2.9.1 The limits for the level of leachate listed in schedule 4 table S4.1 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

2.10.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.

3. Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land.

3.2 Emissions to groundwater

- 3.2.1 There shall be no emission from the activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those regulations.
- 3.2.2 There shall be no emission from the activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those regulations).
- 3.2.3 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 4 Table S4.1 shall not be exceeded.
- 3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:
- (a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

- 3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.
- 3.3.4 All liquids, 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.

3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1** Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

- 3.6.1** The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:
- (a) Leachate specified in table S4.1 and S4.4;
 - (b) Groundwater specified in tables S4.2 and S4.6;
 - (c) Landfill gas specified in tables S4.3 and;
 - (d) Surface water specified in table S4.5.
- 3.6.2** 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.
- 3.6.3** A topographical survey of the site referenced to ordnance datum shall be carried out:
- (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.

The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.

3.7 Transfers off-site

- 3.7.1** Records of all the wastes sent off site from the activities, for either disposal or recovery, shall be maintained.

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 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) sub-surface landfill gas monitoring;
 - (iii) leachate levels, quality and quantities;
 - (iv) waste types and quantities;
 - (v) the specification and as built drawings of the basal, sidewall and capping engineering systems

4.1.2. Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3. All records required to be held by this permit shall be available for on site and shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

4.2.1 A report or reports on the performance of the activities over the previous year shall be submitted to the Agency by 31 January (or other date agreed in writing by the Agency) each year. 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 installation and any agreed amendments thereto;
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
- (c) the energy consumed at the site, reported in the format set out in schedule 5 table S5.3
- (d) the annual production/treatment set out in schedule 5 table S5.2;
- (e) details of any contamination or decontamination of the site which has occurred;
- (f) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;
- (g) 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;
- (h) an assessment of the settlement behavior 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;
- (i) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (j) the compliance testing undertaken in the period;

- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the 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 5 Table S5.1;
 - (b) for the reporting periods specified in schedule 5 Table S5.1 and using the forms specified in schedule 5 Table S5.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 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.
- 4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency.

4.3 Notifications

- 4.3.1 The Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the permit;
 - (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.
- 4.3.3 Prior written notification shall be given to the Agency of the following events and in the specified timescales:
- (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 4.3.4 Where the 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 Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.5 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.

- 4.3.6 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 4.3.8 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 4.3.9 The 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) any change in the operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and
 - (c) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (a). The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2002)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.8, as an integral part of landfilling.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 and 2.11 in part B of the Application Form. Excluding the response to questions 2.2.10, 2.2.15-2.2.21, 2.2.35-2.2.41, 2.2.42, 2.2.46, 2.2.47(part 5) 2.2.49, 2.2.58-2.2.61 (parts 1 and 2), 2.2.64-2.2.68, 2.2.72-2.2.76, 2.2.79-2.81, 2.3.4, 2.7, 2.9.1-2.9.3.	09/05/2005
Response to Schedule 4 dated 01/02/2006.	Revised drawings DESID 6B (Rev A) and DESID 7B (Rev A) FBQ Landsim Report rev 1.pdf (March 2006) Fbq sch 4 response note.doc (March 2006) Fbq two phase model.pdf Fbq two phase results.pdf	Received by email on 03/04/2006 Received by email on 03/04/2006
	Letter from Silkstone Environmental dated 26 th March 2006 Letter from FGB dated 3 rd April 2006 (Ref: JC/JKB/FletcherBank 192)	Received by email on 03/04/2006
Response to email dated 09/05/2006.	FletcherBank_Liner_Workbook.pdf Fbq hra landsim reveal.pdf (May 2006)	Received by email on 12/05/2006 Received by email on 22/05/2006
Amendment to the installation boundary	INPUTS Update 1 Revised Source Term.pdf INPUTS Update 2 Revised Source Term.pdf INPUTS Update 3 Revised Source Term.pdf HRA Annex 1 ReportV2.doc Revised Installation boundary drawings DESID2, 4, 5A, 5B, 6A, 7A and 8A. Fletcher Bank Update 1_revised source_term.sim Fletcher Bank Update 1_revised source_term.rst Fletcher Bank Update 2_revised source_term.sim Fletcher Bank Update 2_revised source_term.rst Fletcher Bank Update 3_revised source_term.sim Fletcher Bank Update 3_revised source_term.rst Revised Non-technical summary Revised Environmental Setting and Installation Design Report Partial Revision of Part B of the application form (excluding the responses to questions 2.2.38, 2.2.18-2.2.19 and 2.2.74). Drawing MM/FBQ/QWP0106-01 Site Layout Drawing MM/FBQ/PPC/DESID88	Received by email on 23/06/2006 Received by email on 23/06/2006 Received by email on 06/07/2006 Received on 07/07/2006 Received on 31/07/2006

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
1	A revised Landfill Gas Risk Assessment shall be submitted to the Environment Agency for approval. The risk assessment shall consider the installation as identified in Schedule 2 of this permit and shall be based on the waste types listed in Schedule 3 of this permit. The report shall include a revised Gas Sim model and contain any necessary revisions to the procedures for the monitoring and management of landfill gas at the site.	01/04/2008
2	A landfill gas report shall be submitted to Environment Agency for approval. The report shall contain appropriate borehole specific background levels and compliance limits for perimeter gas monitoring boreholes BEL1, BEL2, SLR2 and SLR3 and assessment criteria for internal waste boreholes FB106 to FB111. The report shall include any necessary revisions to the landfill gas action plan as contained in Appendix 4 of the Regulatory Specification 2005.	01/11/2007
3	A Particulate Management and Monitoring Plan shall be submitted to the Environment Agency for approval. The plan shall include the measures to be taken to minimise any particulate matter escaping beyond the installation boundary and proposals for carrying out monitoring and assessment of particulate matter in accordance with the Environment Agency's Guidance on Monitoring of Particulate Matter (M17). The plan shall be implemented by the Operator from the date of approval by the Environment Agency.	01/07/2007
4	A Litter Management Plan shall be submitted to the Environment Agency for approval. The plan shall include proposals that minimise the risk of litter escaping from the installation boundary and proposes reasonable timescales for litter collection. The plan shall be implemented by the Operator from the date of approval by the Environment Agency.	01/07/2007
6	The Operator shall submit to the Environment Agency for approval a revised Surface Water Management and Monitoring Plan that is specific to the installation as identified in schedule 2 of this permit. The plan shall take into account the requirements of the Environment Agency's Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water (LFTGN02) and include as a minimum: Relevant surface water monitoring points that will monitor any impact from the installation. The location of surface water monitoring points upstream and downstream of the installation on Crossbank Brook. Monitoring points shall be indicated on a drawing of suitable scale. The plan shall be implemented by the Operator from the date of approval by the Environment Agency.	01/07/2007

Table S1.4 Pre-operational measures for future development

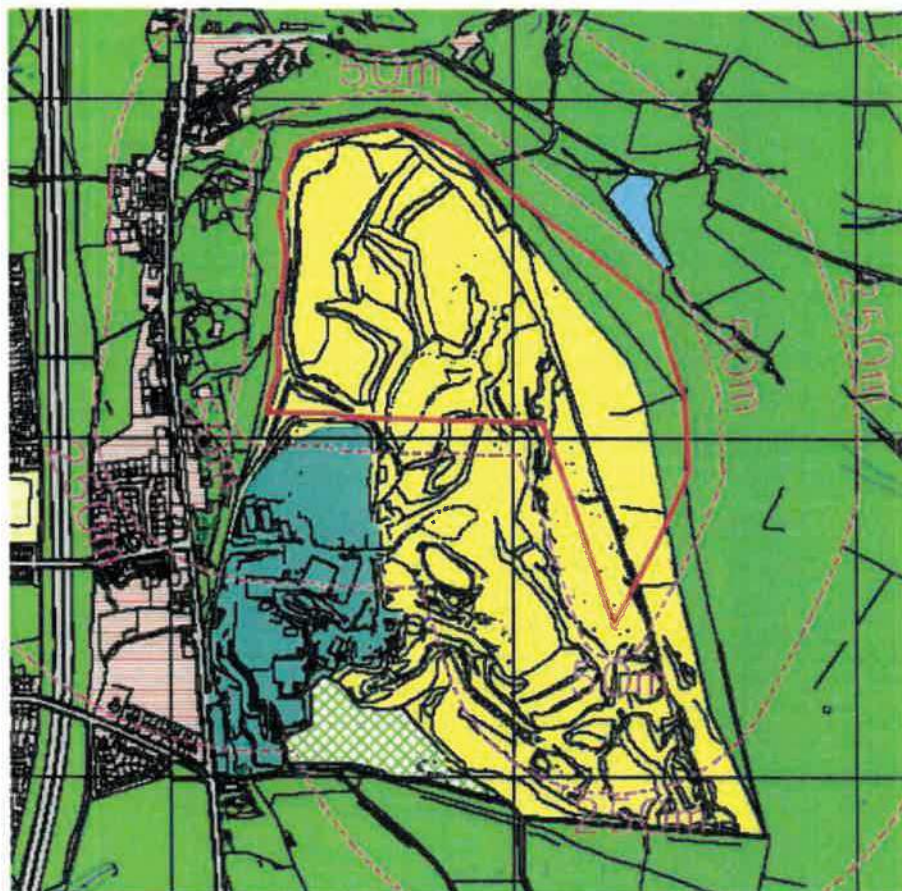
Reference	Operation	Pre-operational Measures
1	Prior to deposit of waste in any cell.	A revised Leachate Management Plan shall be submitted to the Environment Agency for approval. The plan shall include procedures for leachate extraction and collection and details of leachate disposal and discharge methods and routes. The plan shall be implemented by the Operator from the date of approval by the Environment Agency.
2	Prior to deposit of waste in cell 3	A report shall be submitted to the Environment Agency for approval that demonstrates the procedures in place to ensure that the wastes listed in Schedule 3 are only deposited within the installation boundary.
3	Capping of each cell	A report detailing a revised cap design shall be submitted to the Environment Agency for approval. The report shall include justification for the design of any surface water drainage layer required above the cap and shall include a protection layer above the cap to guarantee performance of the cap over the life of the site.

Table S1.5 Annual waste input limits

Category	Limit Tonnes/ Year
Non-hazardous waste	150,000

Schedule 2 - Site plan

Extracted from plan ESID 2 (Rev A), 'Environmental Site Setting' submitted as part of the Permit Application.



Schedule 3 - List of permitted wastes

01	Wastes Resulting from Exploration, Mining, Quarrying, and Physical and Chemical Treatment of Minerals
01 04	Wastes from physical and chemical processing on non-metalliferous minerals
01 04 00	Semi-wet cake
10	Wastes from Thermal Processes
10 11	Wastes from the manufacture of glass and glass products
10 11 03	Waste glass-based fibrous materials ¹
15	Waste Packaging; Absorbants, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	Packaging (including separately collected municipal packaging waste)
15 01 01	Paper and Cardboard
15 01 02	Plastic wrap and straps
15 01 03	Wooden Pallets
15 01 07	Glass packaging
17	Construction and Demolition Wastes (including excavated soils from contaminated sites)
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 05 04	Soil and stone
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil)
17 05 04	Soil and stones other than those mentioned in 17 05 03
20	Municipal waste (household waste and similar commercial industrial and institutional wastes) including separately collected fractions
20 02	Garden and park wastes (including cemetery waste)
20 02 02	Soil and stones

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
Leachate collection sump in each cell identified on plan MMF/BQ/PPC-DESID7A.	5m above the base of the cell.	Monthly	In accordance with Environment Agency Guidance LFTGN02 (February 2003) unless otherwise agreed in writing with the Environment Agency.

Table S4.2 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
BEL1, BEL2 and SLR3 as identified on drawing MMF/BQ/PPC-DESID8A.	Ammoniacal-N	2 mg/l	Spot Sample	Monthly	In accordance with Environment Agency Guidance LFTGN02 (February 2003) unless otherwise agreed in writing with the Environment Agency.
	Chloride	250 mg/l	Spot Sample	Monthly	
	Mercury	0.0001 mg/l	Spot Sample	Quarterly	
	Cadmium	0.0001 mg/l	Spot Sample	Quarterly	

Table S4.3 Landfill gas – monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
BEL1, BEL2, SLR2 and SLR3 identified on as identified on drawing MMF/BQ/PPC-DESID8A.	Methane Carbon Dioxide Oxygen Atmospheric pressure	Monthly	In accordance with Environment Agency Guidance LFTGN03 (September 2003)	None
In waste monitoring boreholes FB106 to FB111 as identified on drawing as identified on drawing MMF/BQ/PPC-DESID8A.	Methane Carbon Dioxide Oxygen Atmospheric pressure Differential pressure Meteorological Data	Monthly	unless otherwise agreed in writing with the Environment Agency.	None

Table S4.4 Leachate- other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate collection sump in each cell identified on plan MM/FBQ/PPC-DESID7A.	pH, EC, Temp	Monthly	In accordance with Environment Agency Guidance LFTGN02 (February 2003) unless otherwise agreed in writing with the Environment Agency.	None
	NH4-N, Cl, SO4, Alk, BOD, COD, TON, TOC Filt, Na, K, Mg, Ca, Fe, Mn, Cd, Hg, Cr, Cu, Ni, Pb, Zn	Quarterly		None
	List 1 screen	Annually		Any List 1 substance found above the MRV screening limits in the annual List 1 screening of leachate shall be incorporated into the quarterly monitoring regime unless otherwise agreed in writing with the Environment Agency.
Depth to base of monitoring well		Annually		

Table S4.5 Surface water - other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Surface Water Monitoring Points as identified on plan DESID 11.	Temperature, DO, pH, EC, TSS, NH4-N, TON, TOC, BOD, COD, Cl.	Monthly	In accordance with Environment Agency Guidance LFTGN02 (February 2003) unless otherwise agreed in writing with the Environment Agency.	None

Table S4.6 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
FB103, FB104, G, SLR2, BEL1, BEL2 and SLR3 as identified on drawing MMF/FBQ/PPC-DESID8A.	Water level, pH, EC, Temp, DO, Amm-N, Cl, COD	Monthly	In accordance with Environment Agency Guidance LFTGN02 (February 2003) unless otherwise agreed in writing with the Environment Agency.	Control levels: Amm-N 1.5mg/l Cl 150 mg/l
	Na, K, TOC, FILT, Alk, Ca, Mn, Mg, Na, TON, Fe, Zn, Cd, Hg, Pb, Cr, Cu, Ni	Quarterly		Any List I substance found above the MRV screening limits in the annual List I screening of leachate required by Table S4.4 shall be incorporated into the quarterly monitoring regime for groundwater unless otherwise agreed in writing with the Environment Agency.
	List I screens (PAH(EPA16); VOCs; Pesticides; Organohalins).	Annually		

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels As required by condition 3.6.1	Leachate collection sump in each cell identified on plan MM/FBQ/PPC-DESID7A.	Monthly	08/03/2007
Groundwater Parameters as required by condition 3.6.1	FB103, FB104, G, SLR2, BEL1, BEL2 and SLR3	Quarterly for all parameters monitored at a monthly or quarterly frequency. Annually for all parameters monitored at an annual frequency.	08/03/2007
Landfill gas lateral migration Parameters as required by condition 3.6.1	BEL1, BEL2, SLR2 and SLR3	Quarterly	08/03/2007
Other Landfill gas monitoring Parameters as required by condition 3.6.1	in waste monitoring boreholes FB106 to FB111	Quarterly	08/03/2007
Other leachate monitoring Parameters as required by condition 3.6.1	Leachate collection sump in each cell identified on plan MM/FBQ/PPC-DESID7A.	Quarterly for all parameters monitored at a monthly or quarterly frequency. Annually for all parameters monitored at an annual frequency.	08/03/2007
List 1 Screen			
Other surface water monitoring Parameters as required by condition 3.6.1	Surface Water Monitoring Points as identified on plan DESID 11.	Quarterly	08/03/2007

Table S5.2: Annual production/treatment

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Energy used (including for leachate treatment)	Annually		MWh of electricity

Table S5.4 Reporting Forms

Media/parameter	Reporting Format	Date of Form
Leachate	Form Leachate 1 or other reporting format to be agreed in writing with the Agency	08/03/2007
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Agency	08/03/2007
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Agency	08/03/2007
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Agency	08/03/2007
Waste Return	Waste Return Form RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - 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 PPC Regulations.

Part A

Permit Number	
Name of operator	
Location of installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection

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) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

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	

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
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 installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Marshalls Mono Limited.

Schedule 7 - 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 4 to the PPC Regulations

"Authorised Officer" means any person authorised by the 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 New Cell or Landfill Infrastructure.

"CQA Validation Report" means the final "as built" construction and engineering details of the New Cell or 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 New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

"Fugitive emission" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

"Groundwater Regulations" means the Groundwater Regulations SI 1998 No. 2746, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"Landfill Infrastructure" means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;

within the site.

"Landfill Regulations" means the Landfill (England and Wales) Regulations SI 2002 No. 1559, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"Land Protection Guidance" means Agency guidance "H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme".

"Liquids" means any liquid other than leachate within the engineered landfill containment system.

"LFTGN 05" means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

"New Cell" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;

- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"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.

"notify without delay" and "notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

"PPC Regulations" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

"Relevant person" and "relevant conviction" shall have the meanings given to them in the Environmental Protection Act 1990

"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 Groundwater 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 Groundwater Regulations

"Site Protection and Monitoring Programme" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"Technically competent management" and "technical competence" shall have the meanings given to them in the Environmental Protection Act 1990.

"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, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk

"Year" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

END OF PERMIT

Notice of transfer with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Churchill Enviro Limited

Fletcher Bank Quarry Landfill Site
Fletcher Bank
Bury
Ramsbottom
Lancashire
BL0 0DD

Transfer application number
EPR/GP3733FE/T001

Permit number
EPR/GP3733FE

Fletcher Bank Quarry Landfill Site

Permit number EPR/GP3733FE

Introductory note

This introductory note does not form a part of the notice

The following notice gives notice of the transfer of an environmental permit to a new operator (the transferee).

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

Status Log of the permit		
Detail	Date	Response Date
Application DP3638ST	Received 09/05/2005	
Response to schedule 4 notice	Request dated 01/02/2006	Response dated 03/05/2006
Response to request for information	09/05/2006	Response dated 12/05/2006 and 22/05/2006
Permit determined DP3638ST	08/03/2007	
Application EPR/GP3733FE/T001 (full transfer of permit DP3638ST)	Duly made 10/03/11	
Transfer determined EPR/GP3733FE (varied and consolidated permit issued)	21/03/11	

End of Introductory Note

Notice of transfer

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 21 of the Environmental Permitting (England and Wales) Regulations 2010 transfers

Permit number
EPR/GP3733FE to:

Churchill Enviro Limited ("the operator")

whose registered office is

**1 Consort Place
Bowdon
Altrincham
Cheshire
WA14 2SH**

company registration number 05393456

to operate a regulated facility at

**Fletcher Bank Quarry Landfill Site
Fletcher Bank
Ramsbottom
Bury
Lancashire
BL0 0DD**

from Marshalls Mono Limited

This notice shall take effect from 21/03/2011

Name	Date
Avril Varley-Brown	21/03/2011

Authorised on behalf of the Environment Agency



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

Canolfan Gofal Cwsmeriad
Cyfoeth Naturiol Cymru, 29 Heol
Casnewydd, Caerdydd, CF24 0TP
Customer Care Centre, Natural
Resources Wales, 29 Newport Rd,
CF24 0TP
Ffôn/Phone: 0300 065 3000

**David Jones
Clwyd House
Blackwood Business Park,
Ash Road South
Wrexham
LL13 9UG**

Date: 14/07/2021

Dear Sir/Madam,

Clwyd Transport Services Ltd. is registered as an upper tier waste carrier, broker or dealer with Natural Resources Wales under The Waste (England and Wales) Regulations 2011.

Business or organisation details

Clwyd House Blackwood Business Park
Ash Road South
Wrexham
LL13 9UG

This is proof of your registration

- Contact name: David Jones
- Telephone number: 01978660022
- Your registration number is: CBDU3337
- Registered on: 14/07/2021
- Expiry date: 16/08/2024

Upper tier registration

You are registered as an upper tier waste carrier, broker or dealer under The Waste (England and Wales) Regulations 2011 because you have declared that you meet one of the following criteria:

- You deal with waste from other businesses or households
- You supply a waste disposal service
- You transport construction or demolition waste

Copy Cards



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

Canolfan Gofal Cwsmeriad
Cyfoeth Naturiol Cymru, 29 Heol
Casnewydd, Caerdydd, CF24 0TP
Customer Care Centre, Natural
Resources Wales, 29 Newport Rd,
CF24 0TP
Ffôn/Phone: 0300 065 3000

Please note – Our staff are now home working wherever possible. This means there is a pause on processing copy cards. We will process all copy cards purchased, but there will be delay in receiving your card(s).

Legal responsibilities for waste

If you produce, carry, import, keep, treat or dispose of waste you have a legal 'duty of care' for that waste. This also applies if you carry or manage waste for other people. The purpose of this duty of care is to protect the environment and human health from the harm that might be posed by mismanagement of waste.

Anyone dealing with waste must abide by the code of practice which includes steps such as keeping it safe, completing the documentation needed for each transfer (the 'transfer note') and only passing it to businesses authorised to take it. The responsibilities are laid out in the code of practice available here:

<https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice>

Your registration details can be viewed online via our public register page here:

<https://naturalresources.wales/permits-and-permissions/check-for-a-permit-licence-or-exemption/?lang=en>

Please contact Natural Resources Wales if you have any enquiries.

- Telephone: 03000 653000
- Email: enquiries@naturalresourceswales.gov.uk

Yours sincerely

Helen Florek – Oughton

Customer Care Centre Manager

Dene Marland

From: Colin Wright
Sent: 01 December 2022 09:30
To: Dene Marland
Subject: Fwd: Crusher Transfer Notice -LK Remediate, Bury
Attachments: Sandvik QJ241 Crusher Transfer Notification.pdf; QJ241 Pendle Crusher Permit Details.pdf; QJ241 Test cert to October 2021.pdf

Sent from Samsung Mobile on O2
Get [Outlook for Android](#)

From: Krissie Shorten <krissie@steptoeyard.co.uk>
Sent: Wednesday, November 30, 2022 3:11:43 PM
To: 'Rebecca.Jones@bury.gov.uk' <Rebecca.Jones@bury.gov.uk>; 'CustomerContactTeam@bury.gov.uk' <CustomerContactTeam@bury.gov.uk>
Cc: Michael.Duck@pendle.gov.uk <Michael.Duck@pendle.gov.uk>; environmental.protection@hyndburnbc.gov.uk <environmental.protection@hyndburnbc.gov.uk>; Colin Wright <C.Wright@thelkgroup.com>
Subject: Crusher Transfer Notice -LK Remediate, Bury

For the attention of: **Bury Environmental Health**

Dear Sirs.

We would like to make you aware that we will be moving one of our 'tracked jaw crushers' onto a construction site within your jurisdiction on Thursday 1st December; where it will remain for approximately 2 Days.

This equipment will be involved with the crushing of hard materials (Concrete, Brick & Blockwork) in order to produce recycled aggregates, and the site in question is as follows:

LK Remediate
Every Street
Fernhill Caravan Site
Bury
BL9 5DE

Please find attached a copy of the 'Transfer Notice', as required by our local council Pendle, along with a copy of our 'Local Authority Crusher Permit' and a current machine 'Test Certificate'.

We trust that the attached is in order, but if you require any further information, please do not hesitate to contact the writer.

Kind regards

Krissie

Krissie Shorten
Accounts Manager
email: krissie@steptoeyard.co.uk

Steptoe's Yard Ltd

Steptoe's Yard, Moorfield Industrial Estate, Moorfield Way, Altham, Accrington, Lancashire, BB5 5TX
Tel: 01254 233227 - Fax: 01254 233228

Website: www.steptoesyard.co.uk

Permit Reference: PP29/V2

Permit issued under the Environmental Permitting (England and Wales) Regulations 2016

Permit Number: PP29

Pendle Borough Council ("the Regulator") in exercise of its powers under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 (S.I. 2016 No. 1154) hereby permits:

Temp Plant Limited ("the Operator")

To operate an installation at:

**Horrocks House Farm
Brodden Lane
Barnoldswick
Lancashire
BB18 5XE**

to the extent authorised by and subject to the conditions of this Permit and within the boundary identified in condition 1.1:

Signed



*Jackie Dickinson (Team Leader- Commercial)
Authorised to sign on behalf of Pendle Borough Council*

Dated

5.12.2018.



Certificate of Thorough Examination

Issue to: STEPTOES YARD LTD	Issue by: J.GILLESPIE Test Number: 44
Address MOORFIELD INDUSTRIAL ESTATE, CLAYTON LE MOORS BB5 5TX	Site Address MOORFIELD INDUSTRIAL ESTATE, CLAYTON LE MOORS BB5 5TX

Manufacturer	Model	Serial Number
SANDVIK	QJ241	1886SW12474

Defects (if any) in Machine or Safe Load Indicator affecting safety of machine requiring repair before the machine is returned to operation	
NO DEFECTS FOUND AT TIME OF EXAMINATION. MACHINE SAFE FOR OPERATION.	
Safe working load limit	Period of examination 12 monthly or after repair
N/A	12 MONTHS

Date of previous thorough examination	Date of thorough examination	Next thorough examination	Date of report
NOT KNOWN	13 / 10 / 2020	13 / 10 / 2021	13 / 10 / 2020

Signature of person making report

1. Your attention is directed to the regulation quoted above which requires the machine to be examined at intervals of 12 months or following a substantial alteration or repair.
2. If machine or crane is used for lifting person or persons it must be examined every 6 months
3. This document is important and should be retained for production to her majesty's inspectorate (If required)
4. Certificate of thorough examination issued under statutory requirements as laid out in LOLER Regulations (1998)

Joe Gillespie
(Managing Director)
E: joe@gillespieltld.com
01925758725 07797070748



Katie Gillespie
(Company Manager)
E: katie@gillespieltld.com
01925758725 07792528585

Hunters Moon, Swineyard Lane, High Leigh, Knutsford, Cheshire WA16 0SD

Appendix 1

Best Practicable Means - Statement of Intent

When completed please send and/or fax to Pendle Borough Council,
Environmental Health Services, Fleet Street Depot, Fleet Street, Nelson,
Lancashire BB9 7YQ Tel: 01282 661199 Fax: 01282 661750, together with
any supporting documents. Use separate sheets if required.

Company Name TEMP PLANT LIMITED

Registered Office UNIT 7, OUZLEDALE FOUNDRY, LONG ING,
BARNOLDSWICK
BB18 6BJ

Telephone 01282 814411 Fax 01282 814404

Address for
Correspondence AS ABOVE

E-mail info@tempplant.co.uk

On Site Contact

Name JOHN TAYLOR Tel 01254 233045

Location and Outlined description of works:

SEE ATTACHED RAMS

Proposed start date 08/06/2021

Estimated duration of works 2 DAYS

Programme of works, giving details of method of demolition and construction, plant and equipment:

SEE ATTACHED RAMS

Detail measures being used to demonstrate the use of Best Practicable Means when choosing machinery and methods of demolition and construction:

SEE ATTACHED RAMS

Detail of publicity proposed and procedure for dealing with complaints:

SEE ATTACHED RAMS

Appendix 3 : Summary of Geochemical Testing

PROJECT NAME: Every Street, Bury
PROJECT REF: LKR 22 1029 On Site
CLIENT: John Southworth In Lab
SITE MANAGER: Colin Wright Reported

CHEMICAL SAMPLING

DATE SAMPLED	SAMPLE REF	STATUS	DETAILS	REPORT DATE	REPORT REF
04/08/2022	TP513	Reported	Trial pit sample	19/08/2022	22 - 30772
04/08/2022		Reported	Trial pit sample - WAC	23/08/2022	22 - 30778
04/08/2022	TP503	Reported	Trial pit sample	19/08/2022	22 - 30772
04/08/2022	TP515	Reported	Trial pit sample	19/08/2022	22 - 30772
04/08/2022	TP512	Reported	Trial pit sample	19/08/2022	22 - 30772
04/08/2022	TP509	Reported	Trial pit sample	19/08/2022	22 - 30772
07/11/2022	503N	Reported	Clearance sample for TP503 - north side	03/01/2023	22-42791
07/11/2022	503S	Reported	Clearance sample for TP503 - south side	03/01/2023	22-42791
07/11/2022	503E	Reported	Clearance sample for TP503 - east side	03/01/2023	22-42791
07/11/2022	503W	Reported	Clearance sample for TP503 - west side	03/01/2023	22-42791
07/11/2022	503B	Reported	Clearance sample for TP503 - base	03/01/2023	22-42791
07/11/2022	512N	Reported	Clearance sample for TP512 - north side	16/01/2023	22-42775
07/11/2022	512S	Reported	Clearance sample for TP512 - south side	16/01/2023	22-42775
07/11/2022	512E	Reported	Clearance sample for TP512 - east side	16/01/2023	22-42775
07/11/2022	512W	Reported	Clearance sample for TP512 - west side	16/01/2023	22-42775
07/11/2022	512B	Reported	Clearance sample for TP512 - base	16/01/2023	22-42775
18/11/2022	TM01	Reported	Red tarmac	18/01/2023	22-44642
18/11/2022	TM02	Reported	Black tarmac	18/01/2023	22-44642
20/12/2022	CR01	Reported	MOT stockpile	16/01/2023	MRN - 4607/3
20/12/2022	CR02	Reported	Tarmac crush	16/01/2023	MRN - 4607/3
20/12/2022	CR03	Reported	Concrete crush	16/01/2023	MRN - 4607/3
20/12/2022	CR04	Reported	Concrete crush	16/01/2023	MRN - 4607/3
09/01/2023	CR05	Reported	MOT		23-00197.1
09/01/2023	CR06	Reported	Tarmac crush		23-00200.1
09/01/2023	CR07	Reported	Concrete crush		23-00198.1
09/01/2023	CR08	Reported	Concrete crush		23-00199.1
22/12/2022	SS01	Reported	Subsoil - Natural Sand		22-11037.1
22/12/2022	SS02	Reported	Subsoil - Natural Sand		22-11037.1
22/12/2022	SS03	Reported	Subsoil - Natural Sand		22-11037.1
22/12/2022	SS04	Reported	Subsoil - Natural Sand		22-11037.1
22/12/2022	SS05	Reported	Subsoil - Natural Sand		22-11037.1
22/12/2022	SS06	Reported	Subsoil - Natural Sand		22-11037.1
22/12/2022	SS07	LOST IN TRANSIT	Subsoil - Natural Sand		N/A
22/12/2022	TP503a	Reported	MG Bund around TP503 (Delineation)		22-11038.1
22/12/2022	TP503b	Reported	MG Bund around TP503 (Delineation)		22-11038.1
22/12/2022	TP503c	Reported	MG Bund around TP503 (Delineation)		22-11038.1
22/12/2022	TP503d	Reported	MG Bund around TP503 (Delineation)		22-11038.1
22/12/2022	TP503e	Reported	MG Bund around TP503 (Delineation)		22-11038.1
31/01/2023	CT01	Reported	Coal Tar Stockpile		23-01367.1

Appendix 4 : Summary of Geotechnical Testing

PROJECT NAME: Every Street, Bury
PROJECT REF: LKR 22 1029 On Site
CLIENT: John Southworth In Lab
SITE MANAGER: Colin Wright Reported

DATE	TEST REF	STATUS	DETAILS
25/01/2023	1	Reported	Plots 1&2 on PM
25/01/2023	2	Reported	Plots 3&4 on PM
25/01/2023	3	Reported	Plots 7&8 on PM
25/01/2023	4	Reported	Plot 9&10 on PM
25/01/2023	5	Reported	Road on 6F2
25/01/2023	6	Reported	Road on 6F2
27/01/2023	LWD001	Reported	See LKR_22_1029_07
27/01/2023	LWD002	Reported	See LKR_22_1029_07
27/01/2023	LWD003	Reported	See LKR_22_1029_07
27/01/2023	LWD004	Reported	See LKR_22_1029_07
27/01/2023	LWD005	Reported	See LKR_22_1029_07
27/01/2023	LWD006	Reported	See LKR_22_1029_07
27/01/2023	LWD007	Reported	See LKR_22_1029_07
27/01/2023	LWD008	Reported	See LKR_22_1029_07
27/01/2023	LWD009	Reported	See LKR_22_1029_07
27/01/2023	LWD010	Reported	See LKR_22_1029_07
27/01/2023	LWD011	Reported	See LKR_22_1029_07
27/01/2023	LWD012	Reported	See LKR_22_1029_07
27/01/2023	LWD013	Reported	See LKR_22_1029_07
27/01/2023	LWD014	Reported	See LKR_22_1029_07
27/01/2023	LWD015	Reported	See LKR_22_1029_07
27/01/2023	LWD016	Reported	See LKR_22_1029_07
27/01/2023	LWD017	Reported	See LKR_22_1029_07
27/01/2023	LWD018	Reported	See LKR_22_1029_07
27/01/2023	LWD019	Reported	See LKR_22_1029_07
27/01/2023	LWD020	Reported	See LKR_22_1029_07
27/01/2023	LWD021	Reported	See LKR_22_1029_07
27/01/2023	LWD022	Reported	See LKR_22_1029_07
27/01/2023	LWD023	Reported	See LKR_22_1029_07
27/01/2023	LWD024	Reported	See LKR_22_1029_07
27/01/2023	LWD025	Reported	See LKR_22_1029_07
27/01/2023	LWD026	Reported	See LKR_22_1029_07
27/01/2023	LWD027	Reported	See LKR_22_1029_07
27/01/2023	LWD028	Reported	See LKR_22_1029_07
27/01/2023	LWD029	Reported	See LKR_22_1029_07
27/01/2023	LWD030	Reported	See LKR_22_1029_07
27/01/2023	LWD031	Reported	See LKR_22_1029_07
27/01/2023	LWD032	Reported	See LKR_22_1029_07
27/01/2023	LWD033	Reported	See LKR_22_1029_07
27/01/2023	LWD034	Reported	See LKR_22_1029_07
27/01/2023	LWD035	Reported	See LKR_22_1029_07
27/01/2023	LWD036	Reported	See LKR_22_1029_07
27/01/2023	LWD037	Reported	See LKR_22_1029_07
27/01/2023	LWD038	Reported	See LKR_22_1029_07
27/01/2023	LWD039	Reported	See LKR_22_1029_07
27/01/2023	LWD040	Reported	See LKR_22_1029_07
27/01/2023	LWD041	Reported	See LKR_22_1029_07

Appendix 5 : Geochemical Test Certificates



Final Report

Report No.:	22-30772-1		
Initial Date of Issue:	19-Aug-2022		
Client	LK Consult		
Client Address:	Unit 29 Eton Business Park Eton Hill Road Radcliffe Manchester Lancashire M26 2ZS		
Contact(s):	Peter Dunn Richard Clarke		
Project	LKR 22 1029 Every Street, Bury		
Quotation No.:		Date Received:	12-Aug-2022
Order No.:	LKR 221029/RC	Date Instructed:	12-Aug-2022
No. of Samples:	5		
Turnaround (Wkdays):	5	Results Due:	18-Aug-2022
Date Approved:	19-Aug-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: LKR 22 1029 Every Street, Bury

Client: LK Consult	Chemtest Job No.:				22-30772	22-30772	22-30772	22-30772	22-30772
Quotation No.:	Chemtest Sample ID.:				1486628	1486629	1486630	1486631	1486632
Order No.: LKR 221029/RC	Client Sample Ref.:				TP513	TP503	TP515	TP512	TP509
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022
	Asbestos Lab:				DURHAM	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	Fibres/Clumps	Fibres/Clumps	Fibres/Clumps	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	Chrysotile	Chrysotile	Chrysotile	No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001		0.004	<0.001	<0.001	
Total Asbestos	U	2192	%	0.001		0.004	<0.001	<0.001	
Moisture	N	2030	%	0.020	5.6	11	3.5	7.0	7.5
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Roots and Stones	Stones	Stones and Roots	Stones, Roots and Glass	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand
Chromatogram (TPH)	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached
pH	M	2010		4.0	8.4	8.5	8.7	8.6	8.7
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	1.1	1.3	0.79	0.81	0.65
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	1.4	0.48	0.047	0.17	0.029
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	50	2.9	0.60	< 0.50	0.90
Arsenic	M	2455	mg/kg	0.5	7.4	8.6	10	9.8	6.8
Cadmium	M	2455	mg/kg	0.10	0.78	1.5	0.87	0.85	0.51
Chromium	M	2455	mg/kg	0.5	27	25	25	30	18
Copper	M	2455	mg/kg	0.50	130	240	100	110	79
Mercury	M	2455	mg/kg	0.05	0.20	0.16	0.28	0.31	0.10
Nickel	M	2455	mg/kg	0.50	35	30	30	33	19
Lead	M	2455	mg/kg	0.50	1400	270	230	300	310
Selenium	M	2455	mg/kg	0.25	0.66	0.52	0.56	0.52	0.49
Vanadium	U	2455	mg/kg	0.5	24	21	26	25	17
Zinc	M	2455	mg/kg	0.50	300	380	240	290	140
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	M	2625	%	0.40	5.7	6.7	8.2	9.2	4.7
Diesel Present	N	2670		N/A	False	False	False	False	False
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	37	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	37	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Soil

Project: LKR 22 1029 Every Street, Bury

Client: LK Consult	Chemtest Job No.:				22-30772	22-30772	22-30772	22-30772	22-30772
Quotation No.:	Chemtest Sample ID.:				1486628	1486629	1486630	1486631	1486632
Order No.: LKR 221029/RC	Client Sample Ref.:				TP513	TP503	TP515	TP512	TP509
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022	04-Aug-2022
	Asbestos Lab:				DURHAM	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD					
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	79	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	26	19	< 1.0	2500	12
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	200	150	210	9700	120
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	770	3300	410	26000	890
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	1000	3500	620	38000	1000
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	1000	3500	620	38000	1000
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	< 0.10	2.9	4.0	5.5	5.0
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	0.44	0.95	1.1	0.41
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	5.7	7.9	21	13
Fluorene	M	2800	mg/kg	0.10	< 0.10	4.5	5.6	15	8.7
Phenanthrene	M	2800	mg/kg	0.10	21	36	48	140	76
Anthracene	M	2800	mg/kg	0.10	4.9	8.4	11	40	17
Fluoranthene	M	2800	mg/kg	0.10	29	55	73	260	99
Pyrene	M	2800	mg/kg	0.10	25	45	64	220	83
Benzo[a]anthracene	M	2800	mg/kg	0.10	12	24	33	110	38
Chrysene	M	2800	mg/kg	0.10	13	25	33	110	39
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	15	31	42	140	46
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	5.7	13	14	50	15
Benzo[a]pyrene	M	2800	mg/kg	0.10	13	27	37	120	39
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	7.2	16	20	75	21
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	1.2	2.7	2.5	10	3.3
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	7.5	15	22	70	21
Total Of 16 PAH's	N	2800	mg/kg	2.0	150	310	420	1400	520
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

TPH Chromatogram on Soil Sample: 1486628

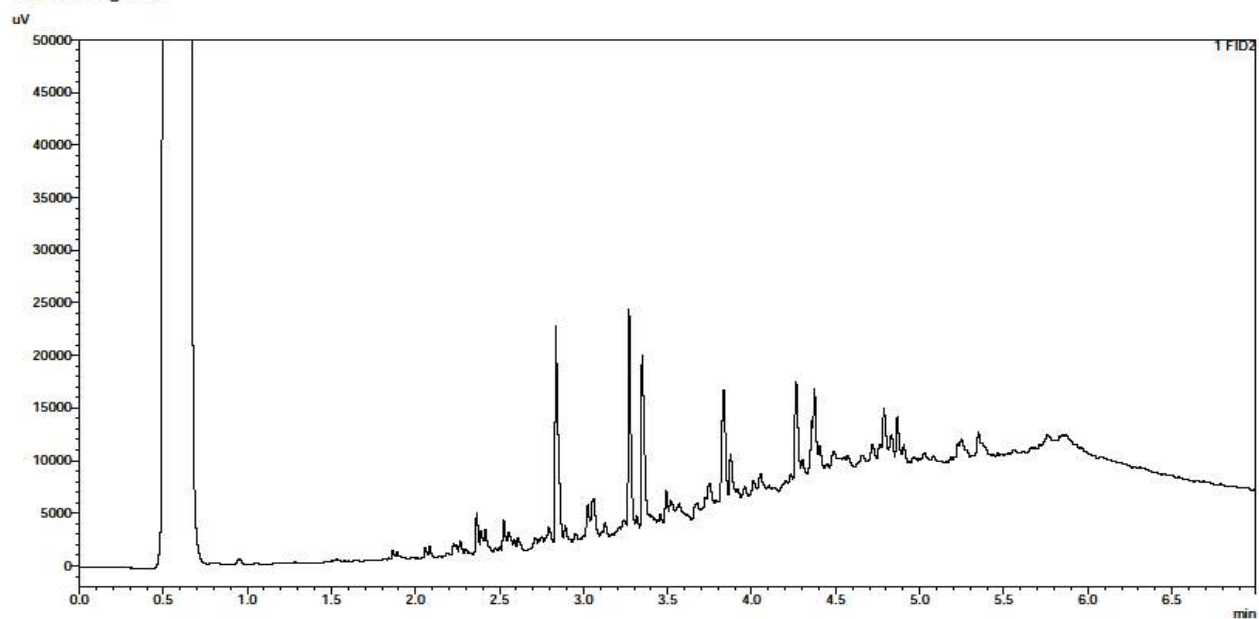
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Sample Name : Back 1486628 22-30772
Data Filename : 2022-08-15_15082022_Back 1486628 22-30772_060.gcd
Method Filename : TPH 12m Fast OSv2.gcm
Sample # : 105
Date Acquired : 15/08/2022 22:18:57
Date Processed : 15/08/2022



Chemtest

<Chromatogram>



TPH Chromatogram on Soil Sample: 1486629

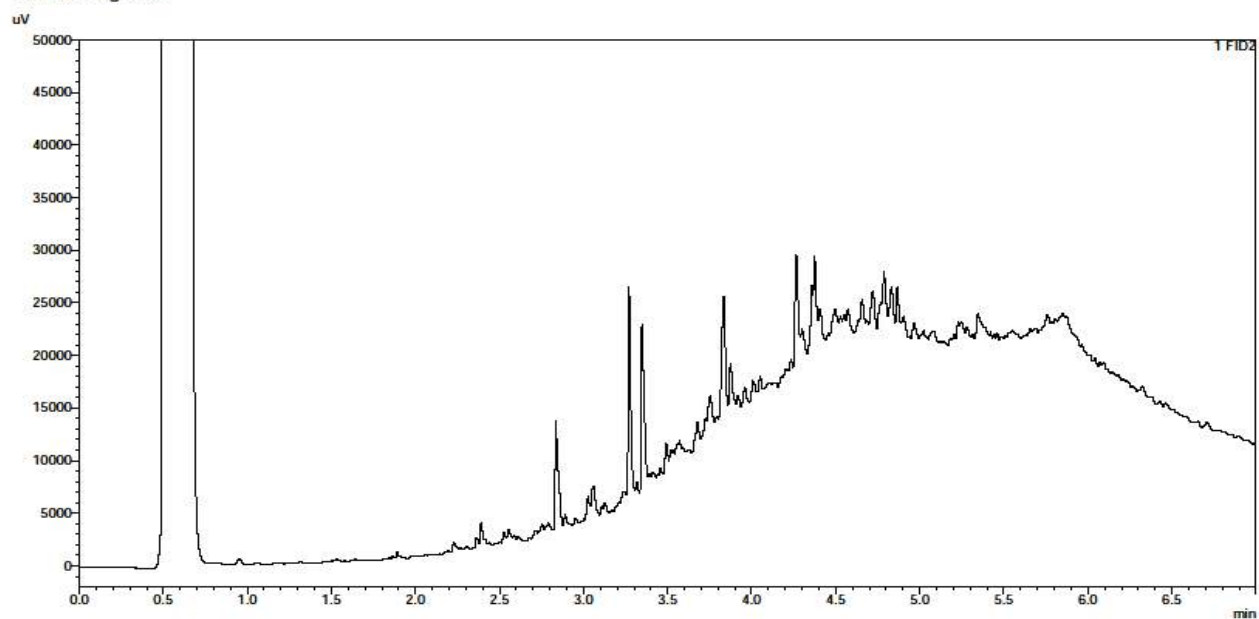
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Sample Name : Back 1486629 22-30772
Data Filename : 2022-08-15_15082022_Back 1486629 22-30772_062.gcd
Method Filename : TPH 12m Fast OSv2.gcm
Sample # : 106
Date Acquired : 15/08/2022 22:31:52
Date Processed : 15/08/2022



Chemtest

<Chromatogram>



TPH Chromatogram on Soil Sample: 1486630

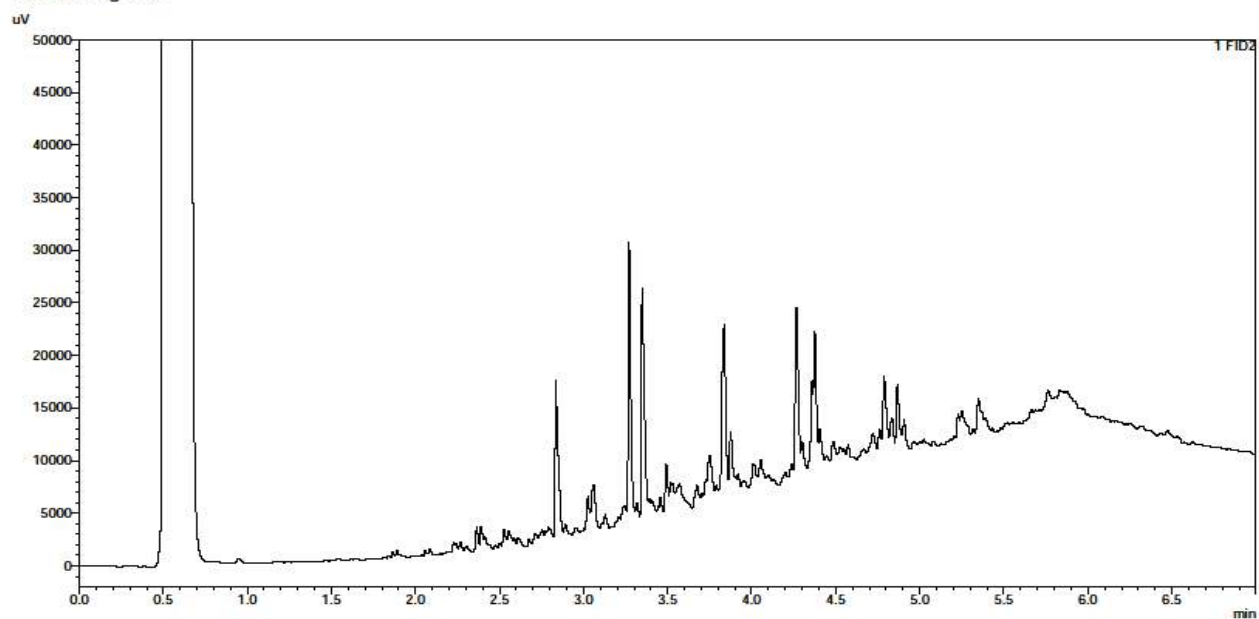
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Sample Name : Back 1486630 22-30772
Data Filename : 2022-08-15_15082022_Back 1486630 22-30772_064.gcd
Method Filename : TPH 12m Fast OSv2.gcm
Sample # : 107
Date Acquired : 15/08/2022 22:44:48
Date Processed : 15/08/2022



Chemtest

<Chromatogram>



TPH Chromatogram on Soil Sample: 1486631

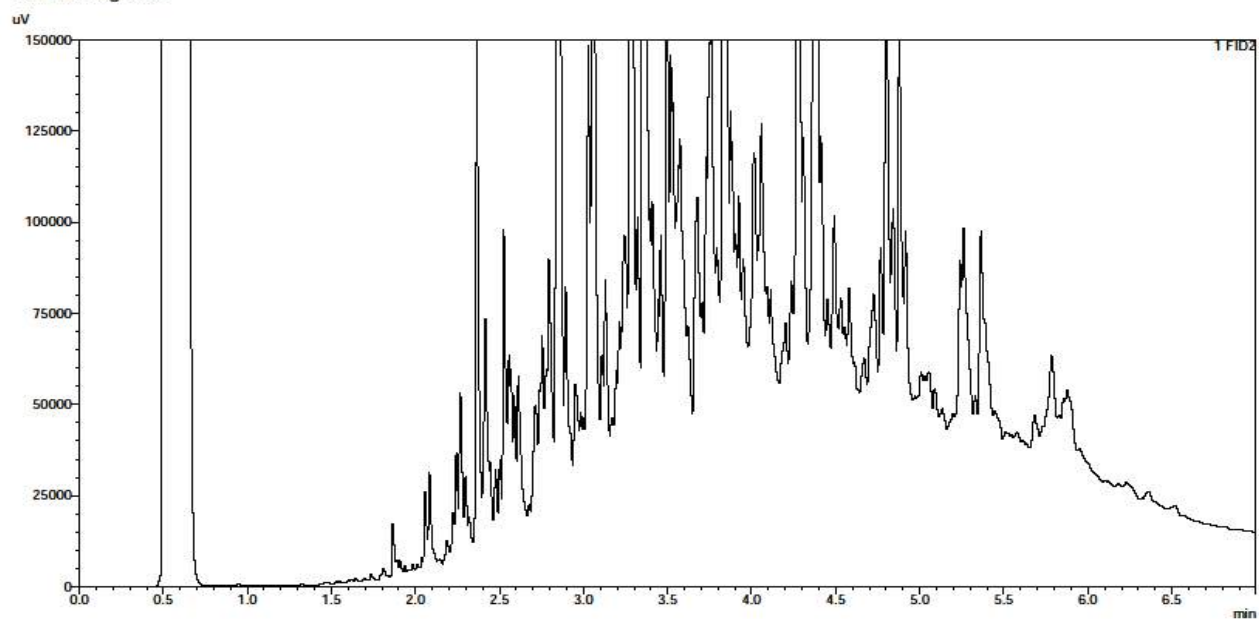
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Sample Name : Back 1486631 22-30772
Data Filename : 2022-08-15_15082022_Back 1486631 22-30772_066.gcd
Method Filename : TPH 12m Fast OSv2.gcm
Sample # : 108
Date Acquired : 15/08/2022 22:57:44
Date Processed : 18/08/2022



Chemtest

<Chromatogram>



TPH Chromatogram on Soil Sample: 1486632

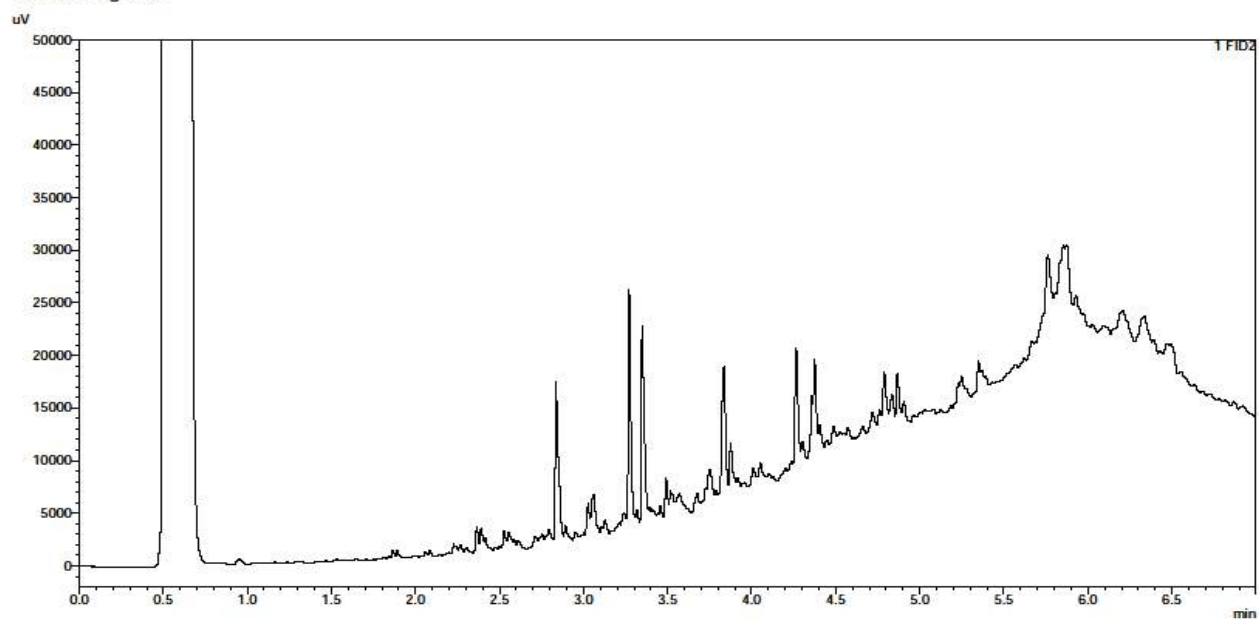
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Sample Name : Back 1486632 22-30772
Data Filename : 2022-08-15_15082022_Back 1486632 22-30772_068.gcd
Method Filename : TPH 12m Fast OSv2.gcm
Sample # : 109
Date Acquired : 15/08/2022 23:10:39
Date Processed : 15/08/2022



Chemtest

<Chromatogram>



TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-30772	1486628	S		TP513			No	PAH
22-30772	1486629	S		TP503			No	PAH and Heavy Oil
22-30772	1486630	S		TP515			No	PAH
22-30772	1486631	S		TP512			No	PAH
22-30772	1486632	S		TP509			No	PAH

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
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S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.: 22-30778-1
Initial Date of Issue: 23-Aug-2022
Client LK Consult
Client Address: Unit 29 Eton Business Park
Eton Hill Road
Radcliffe
Manchester
Lancashire
M26 2ZS
Contact(s): Peter Dunn
Richard Clarke
Project LKR 22 1029 Every Street, Bury

Quotation No.:		Date Received:	12-Aug-2022
Order No.:	LKR 221029/RC	Date Instructed:	12-Aug-2022
No. of Samples:	1		
Turnaround (Wkdays):	7	Results Due:	22-Aug-2022
Date Approved:	23-Aug-2022		

Approved By:

Details: Stuart Henderson, Technical
Manager

Results - 2 Stage WAC

Project: LKR 22 1029 Every Street, Bury

Chemtest Job No: 22-30778							Landfill Waste Acceptance Criteria				
Chemtest Sample ID: 1486654							Limits				
Sample Ref: TP513											
Sample ID:											
Sample Location:							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill		
Top Depth(m):											
Bottom Depth(m):											
Sampling Date: 04-Aug-2022											
Determinand	SOP	Accred.	Units								
Total Organic Carbon	2625	M	%				3.7	3	5	6	
Loss On Ignition	2610	M	%				4.8	--	--	10	
Total BTEX	2760	M	mg/kg				< 0.010	6	--	--	
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.10	1	--	--	
TPH Total WAC	2670	M	mg/kg				1000	500	--	--	
Total (Of 17) PAH's	2700	N	mg/kg				150	100	--	--	
pH	2010	M					8.7	--	>6	--	
Acid Neutralisation Capacity	2015	N	mol/kg				0.0040	--	To evaluate	To evaluate	
Eluate Analysis						2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg	
Arsenic	1455	U	0.0006	0.0005	0.0013	0.0049	0.5	2	25		
Barium	1455	U	0.063	0.053	0.13	0.55	20	100	300		
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5		
Chromium	1455	U	0.0076	0.0034	0.015	0.040	0.5	10	70		
Copper	1455	U	0.011	0.0055	0.023	0.017	2	50	100		
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2		
Molybdenum	1455	U	0.018	0.010	0.035	0.11	0.5	10	30		
Nickel	1455	U	0.0034	0.0022	0.0069	0.024	0.4	10	40		
Lead	1455	U	0.0010	0.0009	0.0021	0.0092	0.5	10	50		
Antimony	1455	U	0.0048	0.0033	0.0096	0.035	0.06	0.7	5		
Selenium	1455	U	0.0011	0.0007	0.0022	0.0077	0.1	0.5	7		
Zinc	1455	U	0.012	0.009	0.025	0.092	4	50	200		
Chloride	1220	U	5.1	1.5	10	20	800	15000	25000		
Fluoride	1220	U	0.46	0.38	< 1.0	3.9	10	150	500		
Sulphate	1220	U	1500	1500	2900	15000	1000	20000	50000		
Total Dissolved Solids	1020	N	1600	1600	3200	16000	4000	60000	100000		
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-		
Dissolved Organic Carbon	1610	U	28	4.6	55	81	500	800	1000		

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	6.6

Leachate Test Information	
Leachant volume 1st extract/l	0.338
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.263

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Test Methods

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

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customerservices@chemtest.com



Final Report

Report No.:	22-42775-1		
Initial Date of Issue:	16-Jan-2023		
Client	LK Consult		
Client Address:	Unit 29 Eton Business Park Eton Hill Road Radcliffe Manchester Lancashire M26 2ZS		
Contact(s):	Richard Clarke		
Project	LKR 22 102 Every Street, Bury		
Quotation No.:		Date Received:	08-Nov-2022
Order No.:	LKR 221029/RC	Date Instructed:	08-Nov-2022
No. of Samples:	5		
Turnaround (Wkdays):	10	Results Due:	21-Nov-2022
Date Approved:	16-Jan-2023		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: LKR 22 102 Every Street, Bury

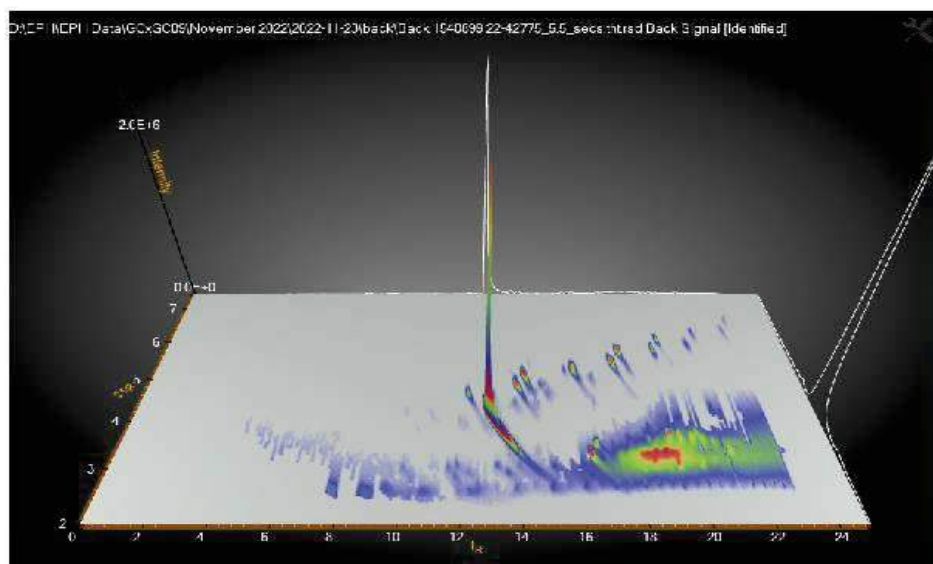
Client: LK Consult	Chemtest Job No.:				22-42775	22-42775	22-42775	22-42775	22-42775
Quotation No.:	Chemtest Sample ID.:				1540899	1540900	1540901	1540902	1540903
Order No.: LKR 221029/RC	Client Sample Ref.:				503N	503S	503E	503W	503B
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	Fibres/Clumps	-	-	Fibres/Clumps
Asbestos Identification	U	2192		N/A	No Asbestos Detected	Chrysotile	No Asbestos Detected	No Asbestos Detected	Chrysotile Crocidolite
Asbestos by Gravimetry	U	2192	%	0.001		<0.001			0.004
Total Asbestos	U	2192	%	0.001		<0.001			0.004
Moisture	N	2030	%	0.020	11	14	13	15	12
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Clay	Sand
Chromatogram (AA Split)	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached
Chromatogram VPH	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached
pH	M	2010		4.0	8.8	8.6	8.5	8.6	8.5
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.66	0.90	0.98	0.89	0.83
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.010	0.064	0.11	0.059	0.061
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	1.6	4.8	1.5	2.7	1.1
Arsenic	M	2455	mg/kg	0.5	8.9	7.1	6.2	9.0	4.5
Cadmium	M	2455	mg/kg	0.10	1.0	0.54	0.78	0.68	0.65
Chromium	M	2455	mg/kg	0.5	30	21	23	27	22
Copper	M	2455	mg/kg	0.50	220	64	79	89	64
Mercury	M	2455	mg/kg	0.05	0.20	0.10	0.13	0.14	0.08
Nickel	M	2455	mg/kg	0.50	30	21	25	30	24
Lead	M	2455	mg/kg	0.50	320	190	420	200	200
Selenium	M	2455	mg/kg	0.25	0.61	0.57	0.43	0.50	0.36
Vanadium	U	2455	mg/kg	0.5	26	18	20	25	19
Zinc	M	2455	mg/kg	0.50	260	210	190	220	170
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic EPH >C10-C12	N	2690	mg/kg	2.00	3.9	5.1	6.2	4.5	< 2.0
Aliphatic EPH >C12-C16	N	2690	mg/kg	1.00	13	12	8.4	7.4	< 1.0
Aliphatic EPH >C16-C21	N	2690	mg/kg	2.00	8.4	5.9	6.6	4.8	< 2.0
Aliphatic EPH >C21-C35	N	2690	mg/kg	3.00	10	7.2	10	< 3.0	< 3.0
Aliphatic EPH >C35-C40	N	2690	mg/kg	1.00	2.5	3.1	2.5	< 1.0	< 1.0
Total Aliphatic EPH >C10-C35	N	2690	mg/kg	5.00	35	31	31	18	< 5.0
Aromatic EPH >C10-C12	N	2690	mg/kg	1.00	3.5	2.1	2.7	1.8	< 1.0
Aromatic EPH >C12-C16	N	2690	mg/kg	1.00	2.2	13	6.4	16	< 1.0
Aromatic EPH >C16-C21	N	2690	mg/kg	2.00	46	230	79	200	< 2.0
Aromatic EPH >C21-C35	N	2690	mg/kg	2.00	290	490	320	380	< 2.0
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	46	170	65	80	< 1.0
Total Aromatic EPH >C10-C35	N	2690	mg/kg	5.00	340	740	410	600	< 5.0
Total EPH >C10-C35	N	2690	mg/kg	10.00	380	770	440	610	< 10

Results - Soil

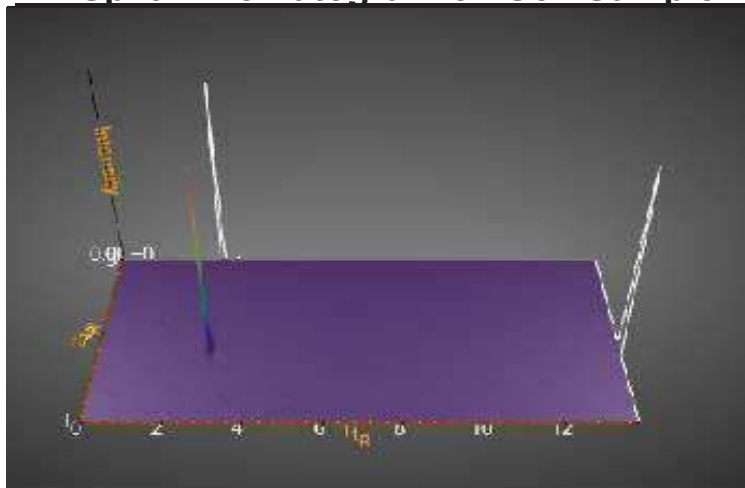
Project: LKR 22 102 Every Street, Bury

Client: LK Consult	Chemtest Job No.:				22-42775	22-42775	22-42775	22-42775	22-42775
Quotation No.:	Chemtest Sample ID.:				1540899	1540900	1540901	1540902	1540903
Order No.: LKR 221029/RC	Client Sample Ref.:				503N	503S	503E	503W	503B
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD					
Organic Matter	M	2625	%	0.40	10	6.6	6.4	6.9	5.2
Aliphatic VPH >C5-C6	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic VPH >C6-C7	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic VPH >C7-C8	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic VPH >C8-C10	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Aliphatic VPH >C5-C10	N	2780	mg/kg	0.25	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Aromatic VPH >C5-C7	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic VPH >C7-C8	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic VPH >C8-C10	N	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Aromatic VPH >C5-C10	N	2780	mg/kg	0.25	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Total VPH >C5-C10	N	2780	mg/kg	0.50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	0.72	0.75	0.45	0.26	0.29
Acenaphthylene	N	2800	mg/kg	0.10	0.36	0.25	0.26	0.15	0.17
Acenaphthene	M	2800	mg/kg	0.10	2.5	2.7	1.3	0.54	0.63
Fluorene	M	2800	mg/kg	0.10	1.6	2.1	1.0	0.44	0.50
Phenanthrene	M	2800	mg/kg	0.10	20	19	9.7	7.1	4.1
Anthracene	M	2800	mg/kg	0.10	4.8	4.7	2.8	1.7	1.2
Fluoranthene	M	2800	mg/kg	0.10	37	30	21	14	9.1
Pyrene	M	2800	mg/kg	0.10	32	26	17	12	7.8
Benzo[a]anthracene	M	2800	mg/kg	0.10	17	13	9.5	7.7	4.3
Chrysene	M	2800	mg/kg	0.10	16	13	8.8	6.2	4.1
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	21	16	12	9.0	6.2
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	8.0	6.3	4.4	3.6	2.1
Benzo[a]pyrene	M	2800	mg/kg	0.10	21	16	12	9.7	6.2
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	12	9.2	7.1	5.9	3.9
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	2.1	1.6	1.2	0.99	0.54
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	11	8.0	6.2	4.9	3.5
Total Of 16 PAH's	N	2800	mg/kg	2.0	210	170	110	84	55
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

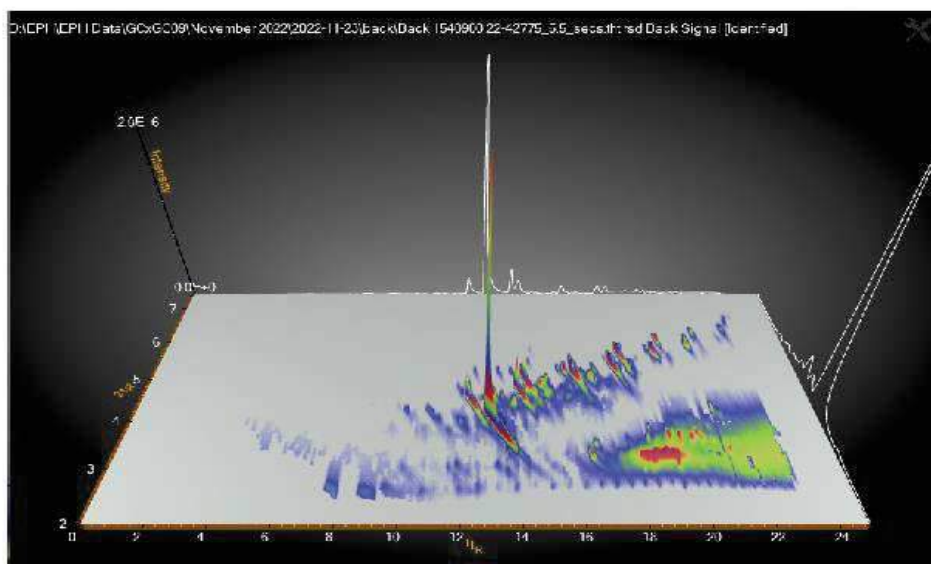
AA-Split Chromatogram on Soil Sample: 1540899



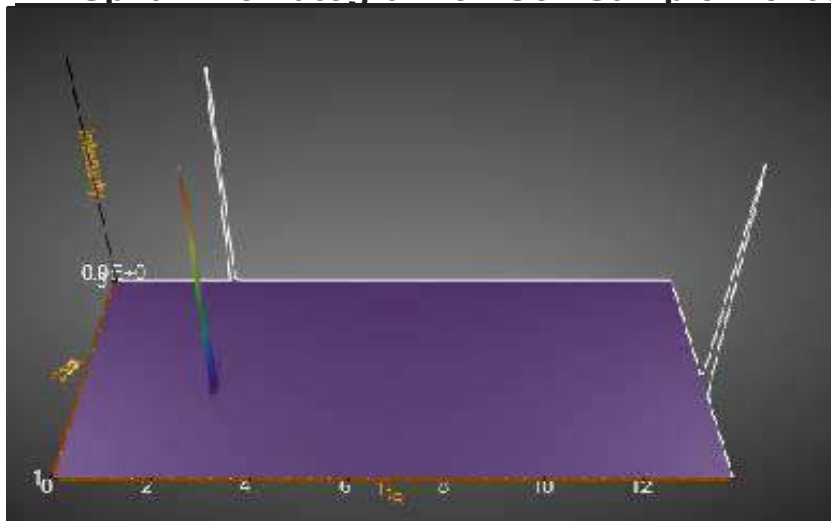
AA-Split Chromatogram on Soil Sample: 1540899



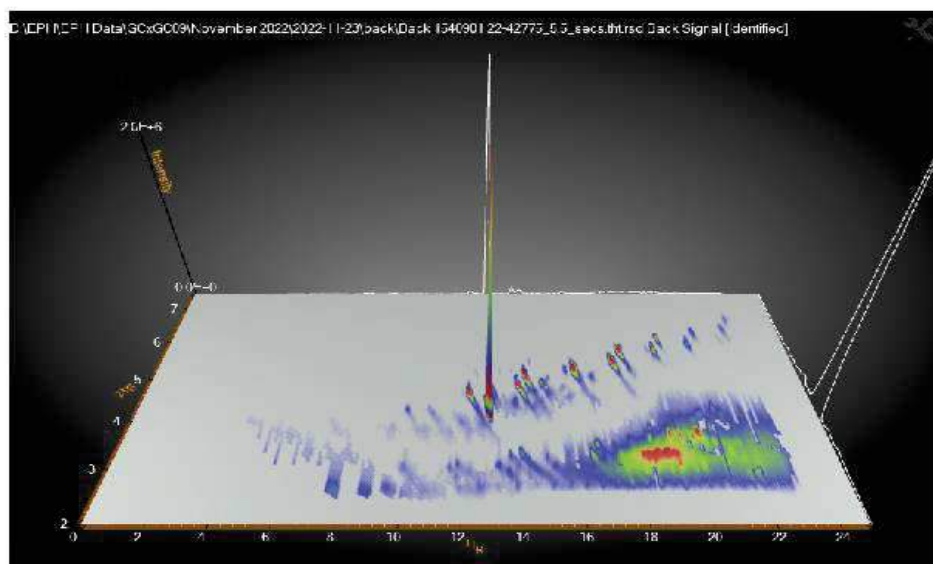
AA-Split Chromatogram on Soil Sample: 1540900



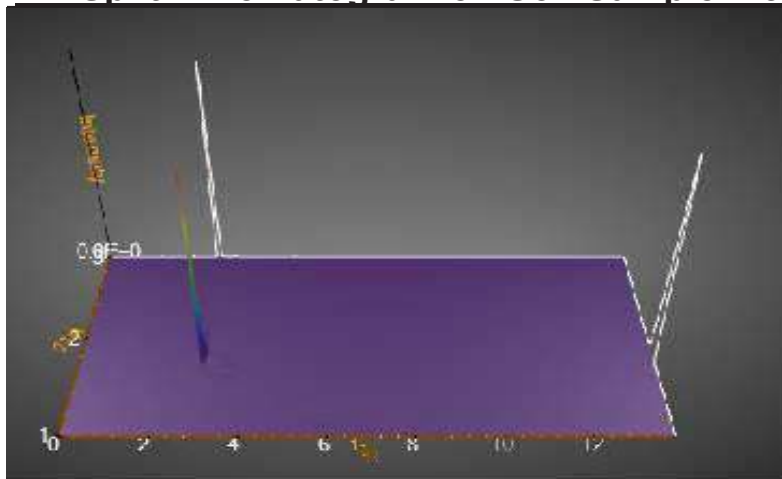
AA-Split Chromatogram on Soil Sample: 1540900



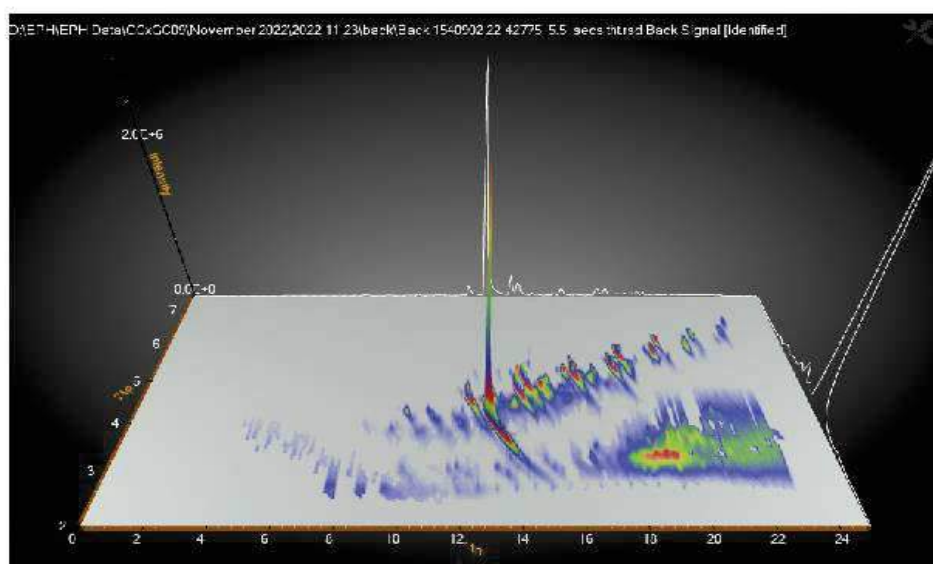
AA-Split Chromatogram on Soil Sample: 1540901



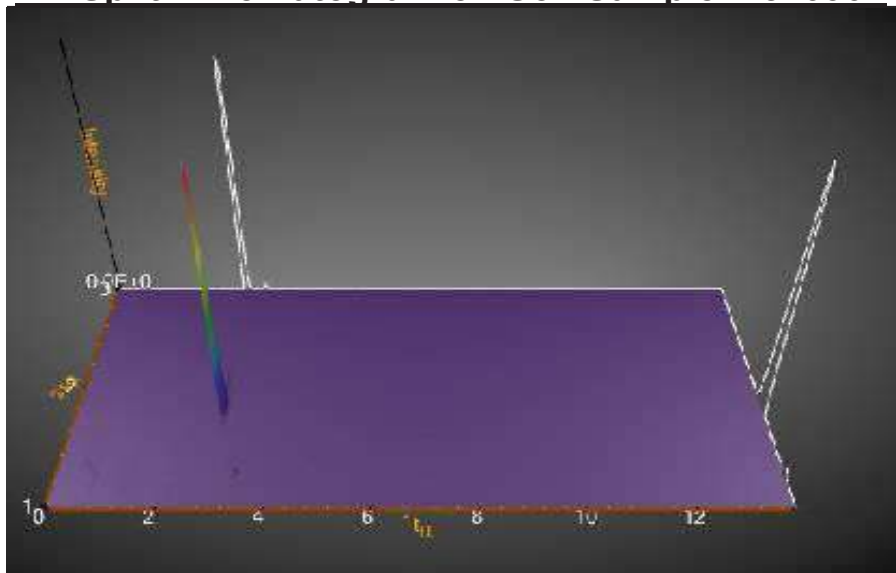
AA-Split Chromatogram on Soil Sample: 1540901



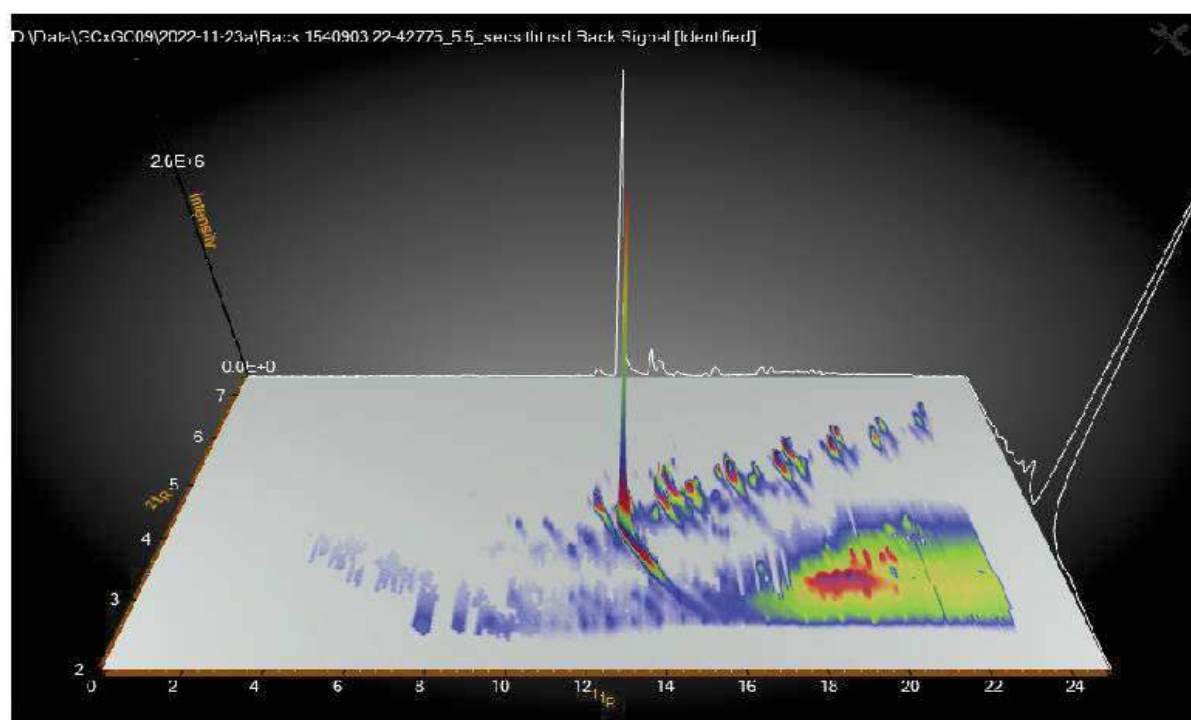
AA-Split Chromatogram on Soil Sample: 1540902



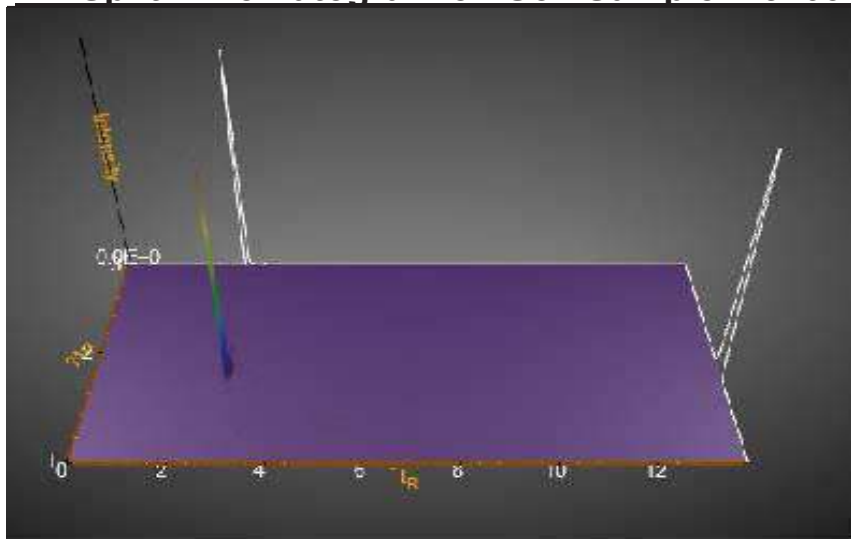
AA-Split Chromatogram on Soil Sample: 1540902



AA-Split Chromatogram on Soil Sample: 1540903



AA-Split Chromatogram on Soil Sample: 1540903



TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-42775	1540899	S		503N				PAH & Heavy Oil
22-42775	1540899	S		503N				n/a
22-42775	1540900	S		503S				PAH & Heavy Oil
22-42775	1540900	S		503S				n/a
22-42775	1540901	S		503E				PAH & Heavy Oil
22-42775	1540901	S		503E				n/a
22-42775	1540902	S		503W				PAH & Heavy Oil
22-42775	1540902	S		503W				n/a
22-42775	1540903	S		503B				Heavy Oil and PAH
22-42775	1540903	S		503B				n/a

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.:	22-42791-1		
Initial Date of Issue:	03-Jan-2023		
Client	LK Consult		
Client Address:	Unit 29 Eton Business Park Eton Hill Road Radcliffe Manchester Lancashire M26 2ZS		
Contact(s):	Richard Clarke		
Project	LKR 22 1029 Every Street, Bury		
Quotation No.:		Date Received:	08-Nov-2022
Order No.:	LKR 221029/RC	Date Instructed:	08-Nov-2022
No. of Samples:	5		
Turnaround (Wkdays):	10	Results Due:	21-Nov-2022
Date Approved:	03-Jan-2023		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: LKR 22 1029 Every Street, Bury

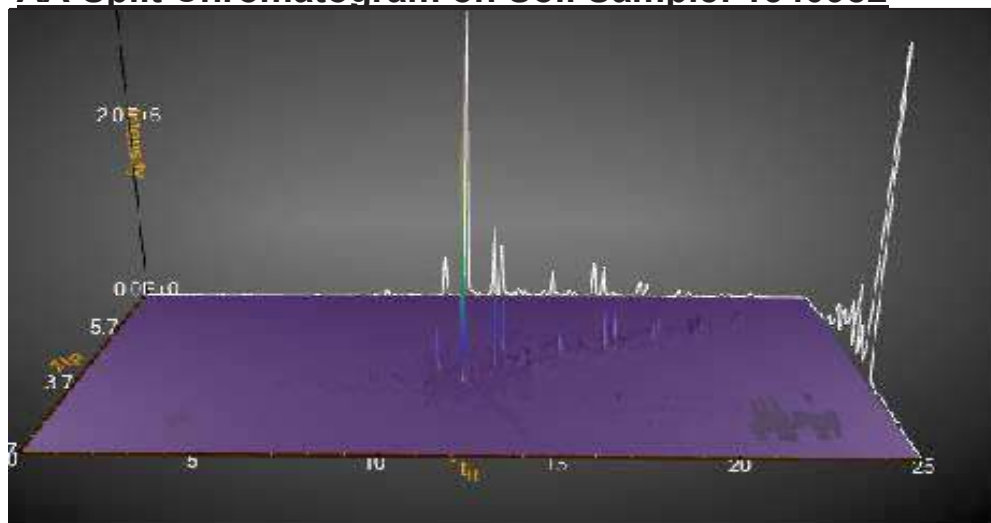
Client: LK Consult	Chemtest Job No.:				22-42791	22-42791	22-42791	22-42791	22-42791
Quotation No.:	Chemtest Sample ID.:				1540982	1540983	1540984	1540985	1540986
Order No.: LKR 221029/RC	Client Sample Ref.:				512N	512S	512E	512W	512B
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	Fibres/Clumps	Fibres/Clumps	Fibres/Clumps	-	-
Asbestos Identification	U	2192		N/A	Chrysotile	Amosite	Crocidolite	No Asbestos Detected	No Asbestos Detected
Asbestos by Gravimetry	U	2192	%	0.001	0.002	0.005	0.002		
Total Asbestos	U	2192	%	0.001	0.002	0.005	0.002		
Moisture	N	2030	%	0.020	12	14	13	14	20
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	None	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Loam	Loam	Loam	Loam	Clay
Chromatogram (AA Split)	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached
Chromatogram VPH	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached
pH	M	2010		4.0	8.6	8.4	8.4	8.4	8.3
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.65	0.75	0.76	0.99	0.75
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50	0.80	0.60	< 0.50
Arsenic	M	2455	mg/kg	0.5	6.9	6.9	5.6	9.3	4.9
Cadmium	M	2455	mg/kg	0.10	0.91	0.42	0.53	0.48	0.17
Chromium	M	2455	mg/kg	0.5	36	14	20	20	6.9
Copper	M	2455	mg/kg	0.50	66	58	62	69	10
Mercury	M	2455	mg/kg	0.05	0.13	0.12	0.14	0.17	< 0.05
Nickel	M	2455	mg/kg	0.50	28	16	18	18	7.0
Lead	M	2455	mg/kg	0.50	180	120	170	170	13
Selenium	M	2455	mg/kg	0.25	0.72	0.37	0.29	0.32	0.26
Vanadium	U	2455	mg/kg	0.5	22	16	14	17	7.3
Zinc	M	2455	mg/kg	0.50	210	100	140	140	27
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	5.1	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	6.4	3.6	2.6	2.4	< 1.0
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	8.3	6.3	4.3	5.4	< 2.0
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	10	9.9	9.5	11	3.7
Aliphatic EPH >C35-C40	N	2690	mg/kg	1.00	1.2	1.9	< 1.0	7.5	< 1.0
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	30	21	18	20	7.1
Aromatic EPH >C10-C12	M	2690	mg/kg	1.00	2.0	3.2	< 1.0	2.2	< 1.0
Aromatic EPH >C12-C16	M	2690	mg/kg	1.00	27	49	12	40	5.9
Aromatic EPH >C16-C21	N	2690	mg/kg	2.00	280	370	110	390	63
Aromatic EPH >C21-C35	M	2690	mg/kg	2.00	510	590	230	600	73
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	37	40	20	49	3.3
Total Aromatic EPH >C10-C35	M	2690	mg/kg	5.00	820	1000	350	1000	140
Total EPH >C10-C35	M	2690	mg/kg	10.00	850	1000	370	1100	150

Results - Soil

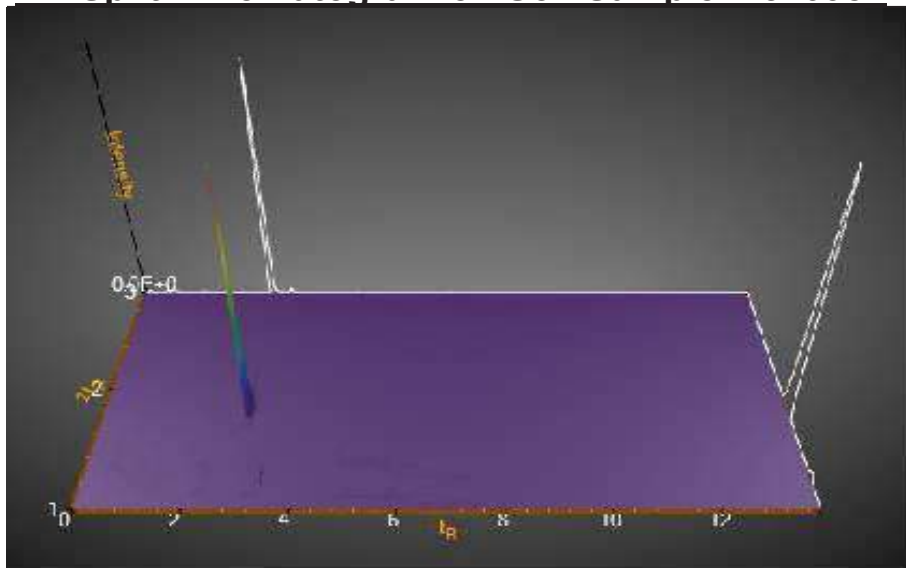
Project: LKR 22 1029 Every Street, Bury

Client: LK Consult	Chemtest Job No.:				22-42791	22-42791	22-42791	22-42791	22-42791
Quotation No.:	Chemtest Sample ID.:				1540982	1540983	1540984	1540985	1540986
Order No.: LKR 221029/RC	Client Sample Ref.:				512N	512S	512E	512W	512B
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022	07-Nov-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD					
Organic Matter	M	2625	%	0.40	8.8	8.5	16	8.5	1.6
Aliphatic VPH >C5-C6	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	0.10
Aliphatic VPH >C6-C7	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05
Aliphatic VPH >C7-C8	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05
Aliphatic VPH >C8-C10	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	0.39
Total Aliphatic VPH >C5-C10	M	2780	mg/kg	0.25	< 0.3	< 0.3	< 0.3	< 0.3	< 0.25
Aromatic VPH >C5-C7	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05
Aromatic VPH >C7-C8	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05
Aromatic VPH >C8-C10	M	2780	mg/kg	0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05
Total Aromatic VPH >C5-C10	M	2780	mg/kg	0.25	< 0.3	< 0.3	< 0.3	< 0.3	< 0.25
Total VPH >C5-C10	M	2780	mg/kg	0.50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	M	2800	mg/kg	0.10	0.55	0.36	0.72	2.5	0.22
Acenaphthylene	N	2800	mg/kg	0.10	0.26	0.17	0.38	0.78	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	2.0	2.4	2.2	13	0.93
Fluorene	M	2800	mg/kg	0.10	1.4	1.6	1.6	7.8	0.62
Phenanthrene	M	2800	mg/kg	0.10	16	16	17	81	5.7
Anthracene	M	2800	mg/kg	0.10	3.8	4.0	4.4	18	1.3
Fluoranthene	M	2800	mg/kg	0.10	37	30	43	120	9.4
Pyrene	M	2800	mg/kg	0.10	33	26	38	100	8.2
Benzo[a]anthracene	M	2800	mg/kg	0.10	18	13	22	50	3.8
Chrysene	M	2800	mg/kg	0.10	17	12	20	51	4.1
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	25	16	30	62	4.9
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	9.6	5.1	11	22	1.7
Benzo[a]pyrene	M	2800	mg/kg	0.10	24	15	29	55	4.4
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	16	8.4	18	34	2.8
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	2.6	1.4	3.0	6.5	0.52
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	12	7.4	15	30	2.5
Total Of 16 PAH's	N	2800	mg/kg	2.0	220	160	260	650	51
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

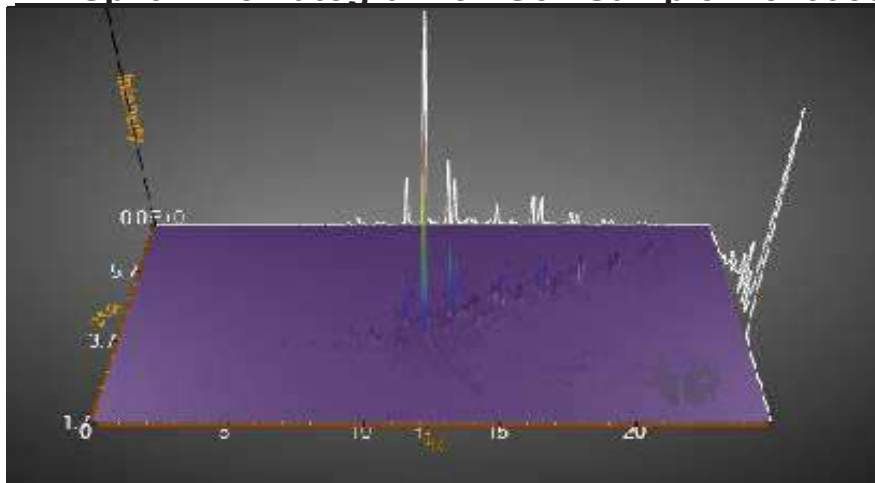
AA-Split Chromatogram on Soil Sample: 1540982



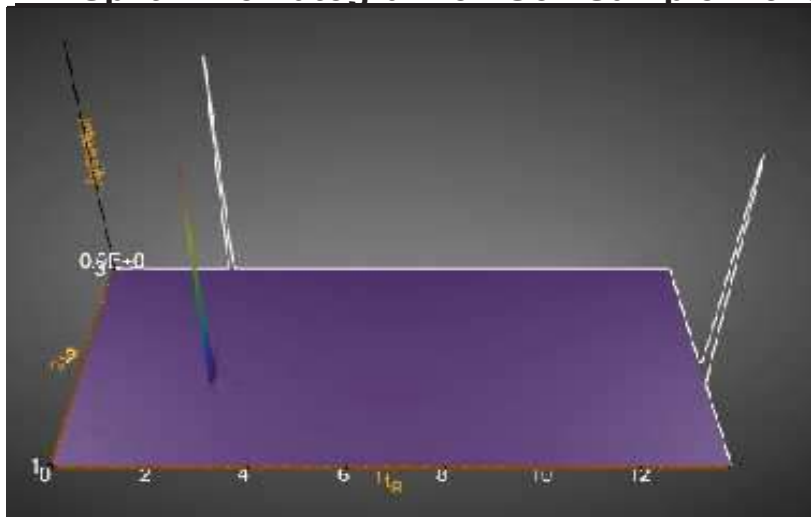
AA-Split Chromatogram on Soil Sample: 1540982



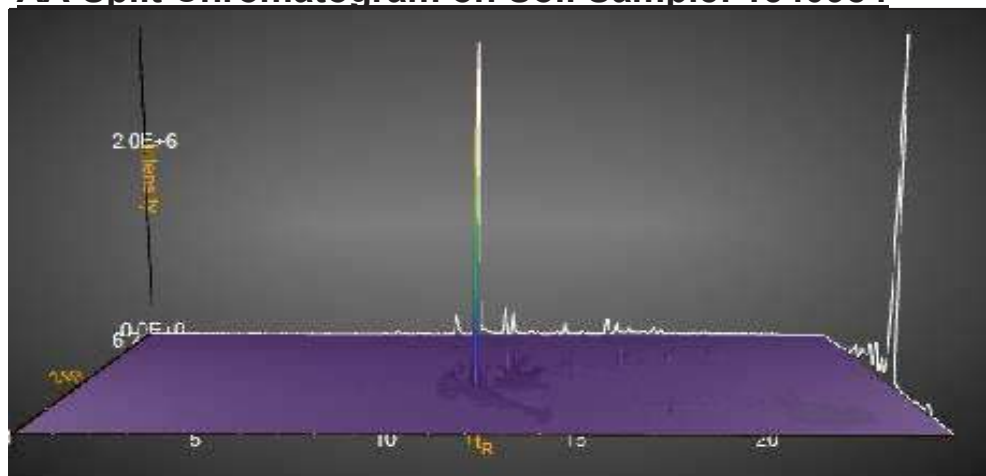
AA-Split Chromatogram on Soil Sample: 1540983



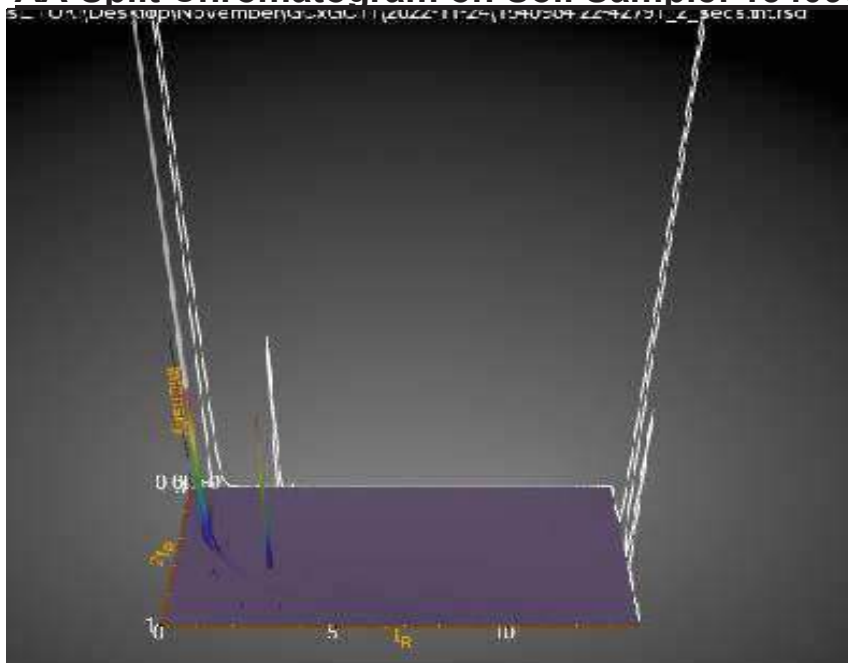
AA-Split Chromatogram on Soil Sample: 1540983



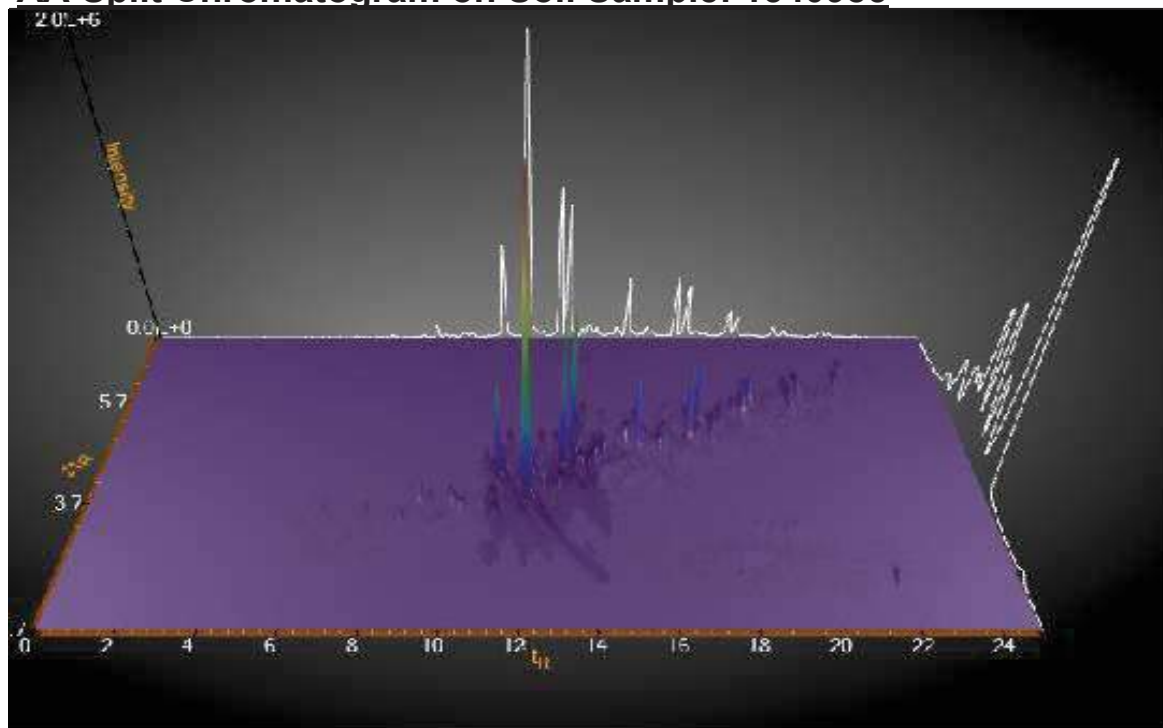
AA-Split Chromatogram on Soil Sample: 1540984



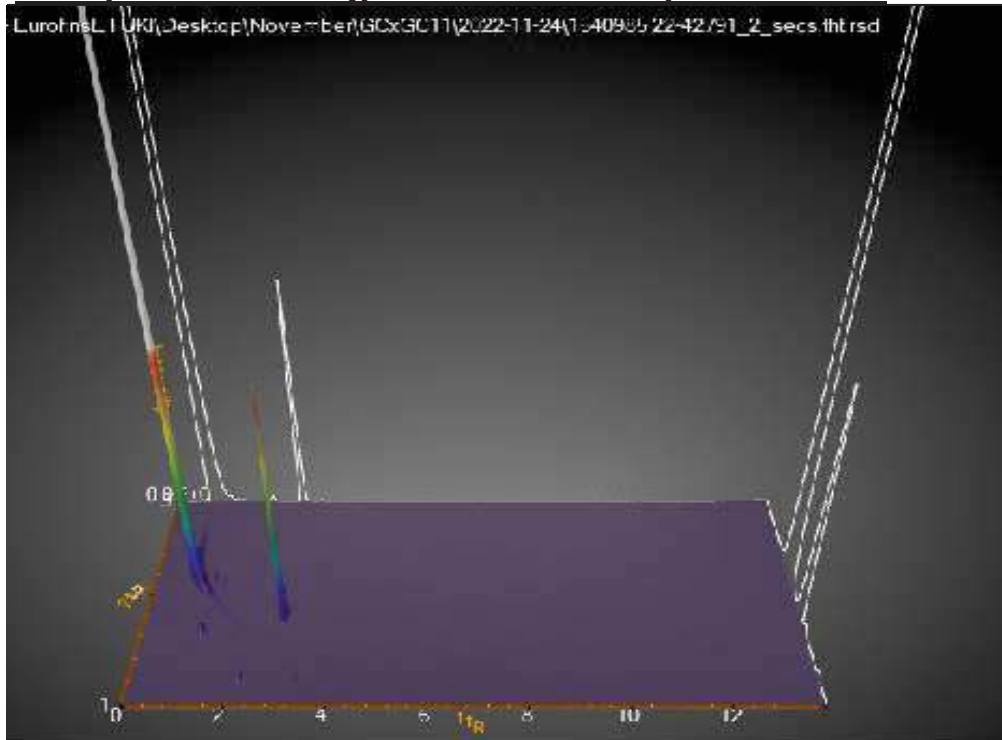
AA-Split Chromatogram on Soil Sample: 1540984



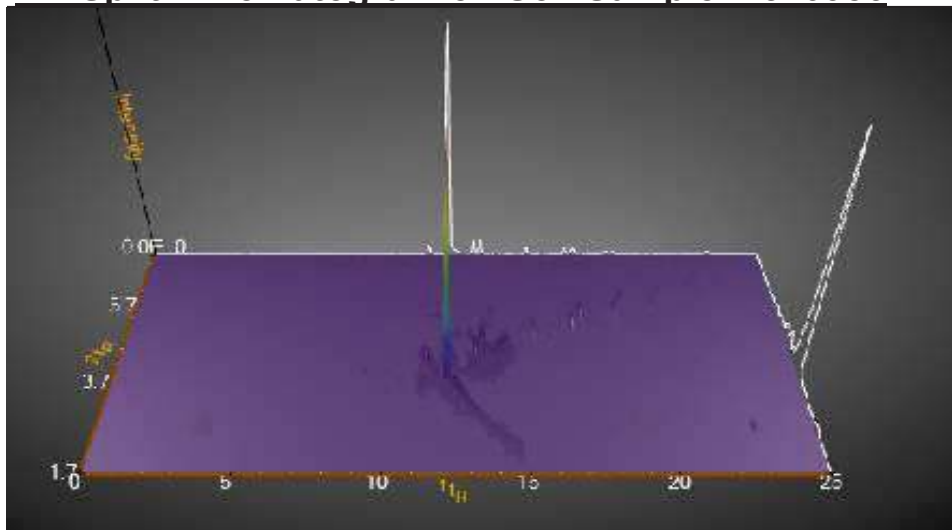
AA-Split Chromatogram on Soil Sample: 1540985



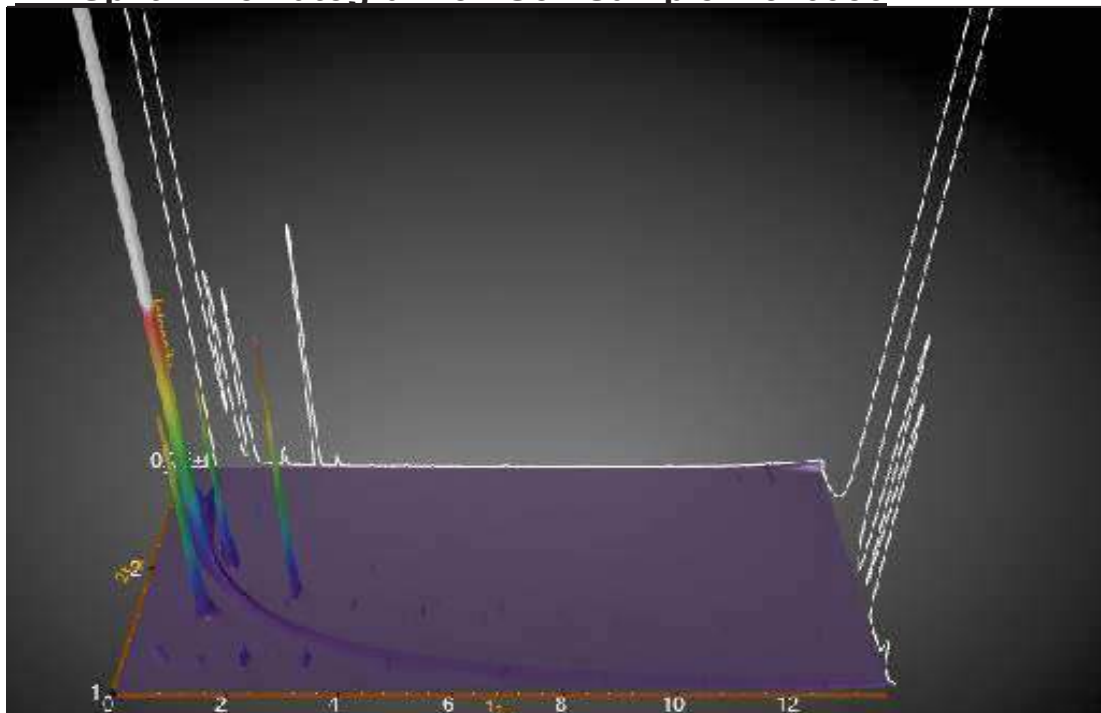
AA-Split Chromatogram on Soil Sample: 1540985



AA-Split Chromatogram on Soil Sample: 1540986



AA-Split Chromatogram on Soil Sample: 1540986



TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-42791	1540982	S		512N				pah/diesel
22-42791	1540982	S		512N				n/a
22-42791	1540983	S		512S				pah/diesel
22-42791	1540983	S		512S				n/a
22-42791	1540984	S		512E				pah
22-42791	1540984	S		512E				n/a
22-42791	1540985	S		512W				pah/diesel
22-42791	1540985	S		512W				n/a
22-42791	1540986	S		512B				pah
22-42791	1540986	S		512B				n/a

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C44 Aromatics: >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Acetone/Heptane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10 Aromatics: >C5–C6, >C6–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.:	22-44642-1		
Initial Date of Issue:	18-Jan-2023		
Client	LK Consult		
Client Address:	Unit 29 Eton Business Park Eton Hill Road Radcliffe Manchester Lancashire M26 2ZS		
Contact(s):	Richard Clarke		
Project	LKR 22 1029 Every Street, Bury		
Quotation No.:		Date Received:	21-Nov-2022
Order No.:	LKR 221029/RC	Date Instructed:	21-Nov-2022
No. of Samples:	2		
Turnaround (Wkdays):	10	Results Due:	02-Dec-2022
Date Approved:	18-Jan-2023		
Approved By:			
Details:	Stuart Henderson, TECHINCAL MANAGER		

Results - Soil

Project: LKR 22 1029 Every Street, Bury

Client: LK Consult	Chemtest Job No.:				22-44642	22-44642
Quotation No.:	Chemtest Sample ID.:				1549578	1549579
Order No.: LKR 221029/RC	Client Sample Ref.:				TM01	TM02
	Sample Type:				SOIL	SOIL
	Date Sampled:				18-Nov-2022	18-Nov-2022
Determinand	Accred.	SOP	Units	LOD		
Moisture	N	2030	%	0.020	5.7	3.4
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones
Soil Texture	N	2040		N/A	Gravel	Gravel
Chromatogram (AA Split)	N			N/A	See Attached	See Attached
Chromatogram VPH	N			N/A	See Attached	See Attached
Aliphatic EPH >C8-C10	M	2690	mg/kg	1.00	63	77
Aliphatic VPH >C5-C6	M	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	M	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	M	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C8-C10	M	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	M	2780	mg/kg	0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	2.3	2.1
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	4.4	2.8
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	4.1	2.8
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	3.2	18
Aliphatic EPH >C35-C40	N	2690	mg/kg	1.00	8.3	22
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	14	26
Aromatic VPH >C5-C7	M	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	M	2780	mg/kg	0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	M	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	M	2780	mg/kg	0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12	M	2690	mg/kg	1.00	< 1.0	< 1.0
Aromatic EPH >C12-C16	M	2690	mg/kg	1.00	< 1.0	< 1.0
Aromatic EPH >C16-C21	N	2690	mg/kg	2.00	3.2	2.9
Aromatic EPH >C21-C35	M	2690	mg/kg	2.00	270	710
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	230	91
Total Aromatic EPH >C10-C35	M	2690	mg/kg	5.00	280	710
Total VPH >C5-C10	M	2780	mg/kg	0.50	< 0.50	< 0.50
Total EPH >C10-C35	M	2690	mg/kg	10.00	290	740
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	0.31	0.60
Anthracene	M	2700	mg/kg	0.10	0.18	0.19
Fluoranthene	M	2700	mg/kg	0.10	0.50	0.64
Pyrene	M	2700	mg/kg	0.10	0.47	0.72
Benzo[a]anthracene	M	2700	mg/kg	0.10	0.22	< 0.10
Chrysene	M	2700	mg/kg	0.10	0.78	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	0.81	< 0.10

Results - Soil

Project: LKR 22 1029 Every Street, Bury

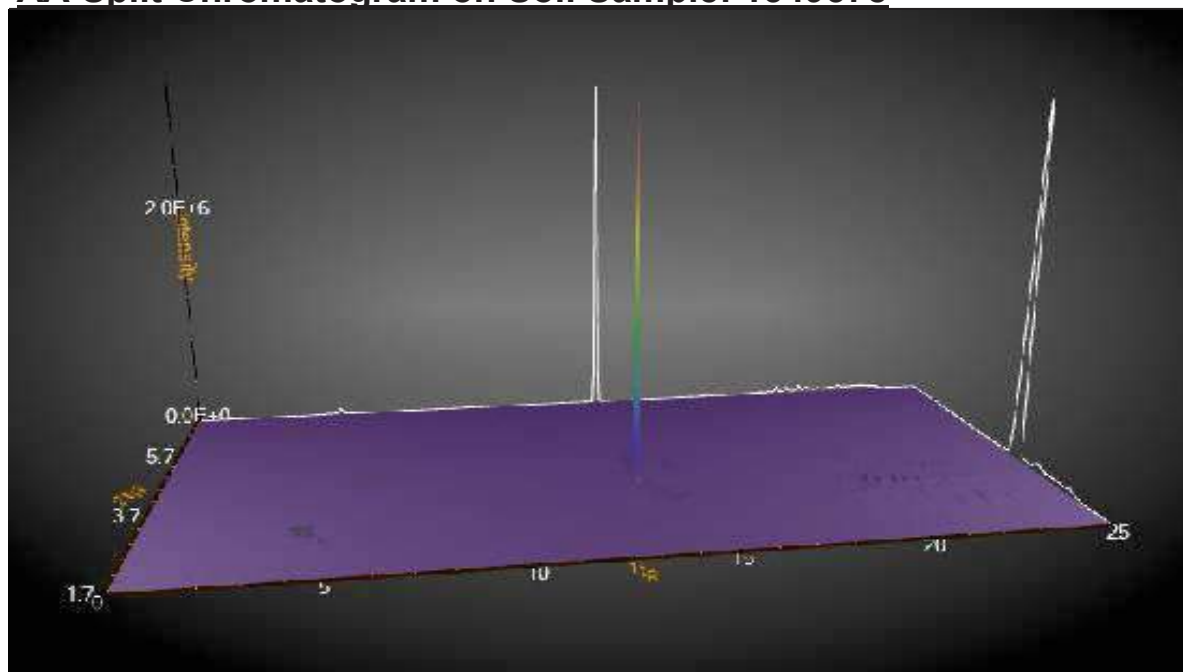
Client: LK Consult	Chemtest Job No.:				22-44642	22-44642
Quotation No.:	Chemtest Sample ID.:				1549578	1549579
Order No.: LKR 221029/RC	Client Sample Ref.:				TM01	TM02
	Sample Type:				SOIL	SOIL
	Date Sampled:				18-Nov-2022	18-Nov-2022
Determinand	Accred.	SOP	Units	LOD		
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	0.38	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	0.24	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Coronene	N	2700	mg/kg	0.10	< 0.10	< 0.10
Total Of 17 PAH's	N	2700	mg/kg	2.0	3.9	2.2
Double Ratio Fluoranthene:Pyrene	M	2700		0.010	1.1	0.89
Double Ratio Benzo(a)Anthracene:Chrysene	M	2700		0.010	0.28	< 0.010
N-Nitrosodimethylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50
Phenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Chlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
Nitrobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Isophorone	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Naphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorobutadiene	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methylnaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Chloronaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50
Acenaphthylene	M	2790	mg/kg	0.50	< 0.50	< 0.50

Results - Soil

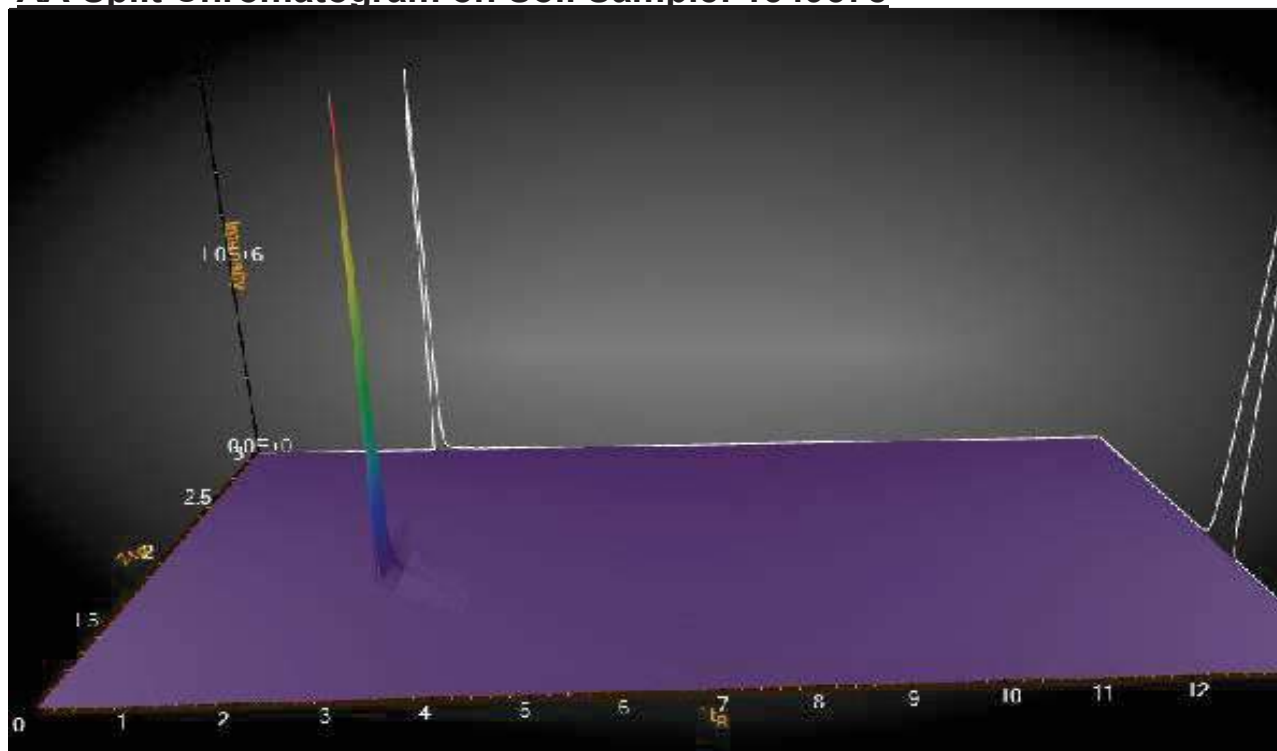
Project: LKR 22 1029 Every Street, Bury

Client: LK Consult	Chemtest Job No.:				22-44642	22-44642
Quotation No.:	Chemtest Sample ID.:				1549578	1549579
Order No.: LKR 221029/RC	Client Sample Ref.:				TM01	TM02
	Sample Type:				SOIL	SOIL
	Date Sampled:				18-Nov-2022	18-Nov-2022
Determinand	Accred.	SOP	Units	LOD		
Dimethylphthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Acenaphthene	M	2790	mg/kg	0.50	< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50
Dibenzofuran	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	M	2790	mg/kg	0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Fluorene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Diethyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Azobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50
Hexachlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50
Phenanthrene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Anthracene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Carbazole	M	2790	mg/kg	0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50
Fluoranthene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Pyrene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[a]anthracene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Chrysene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[a]pyrene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50	< 0.50	< 0.50
Interpretive Report	N			N/A	See Below	See Below
SVOC TIC	N	2790	mg/kg	N/A	None Detected	None Detected

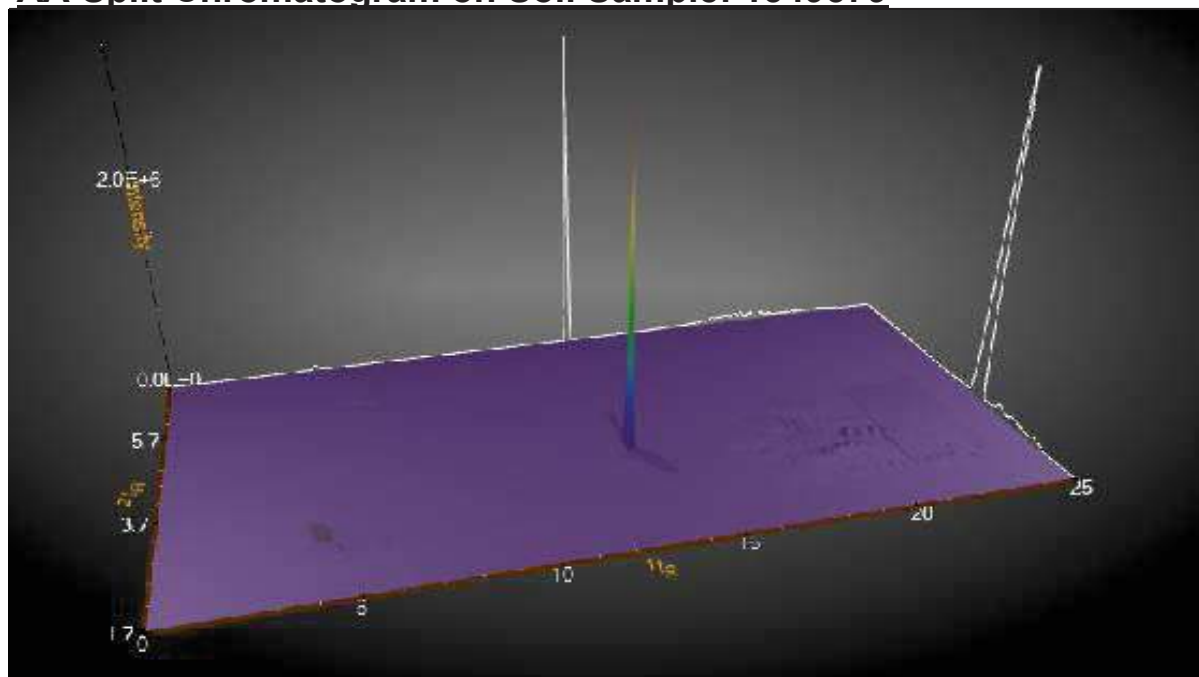
AA-Split Chromatogram on Soil Sample: 1549578



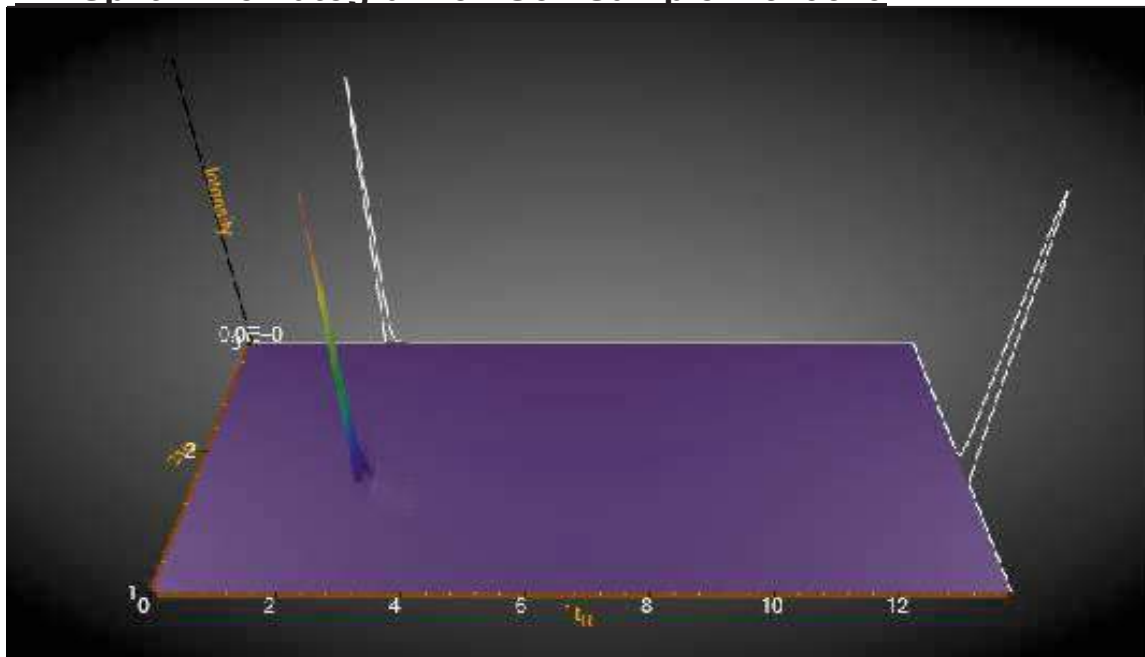
AA-Split Chromatogram on Soil Sample: 1549578



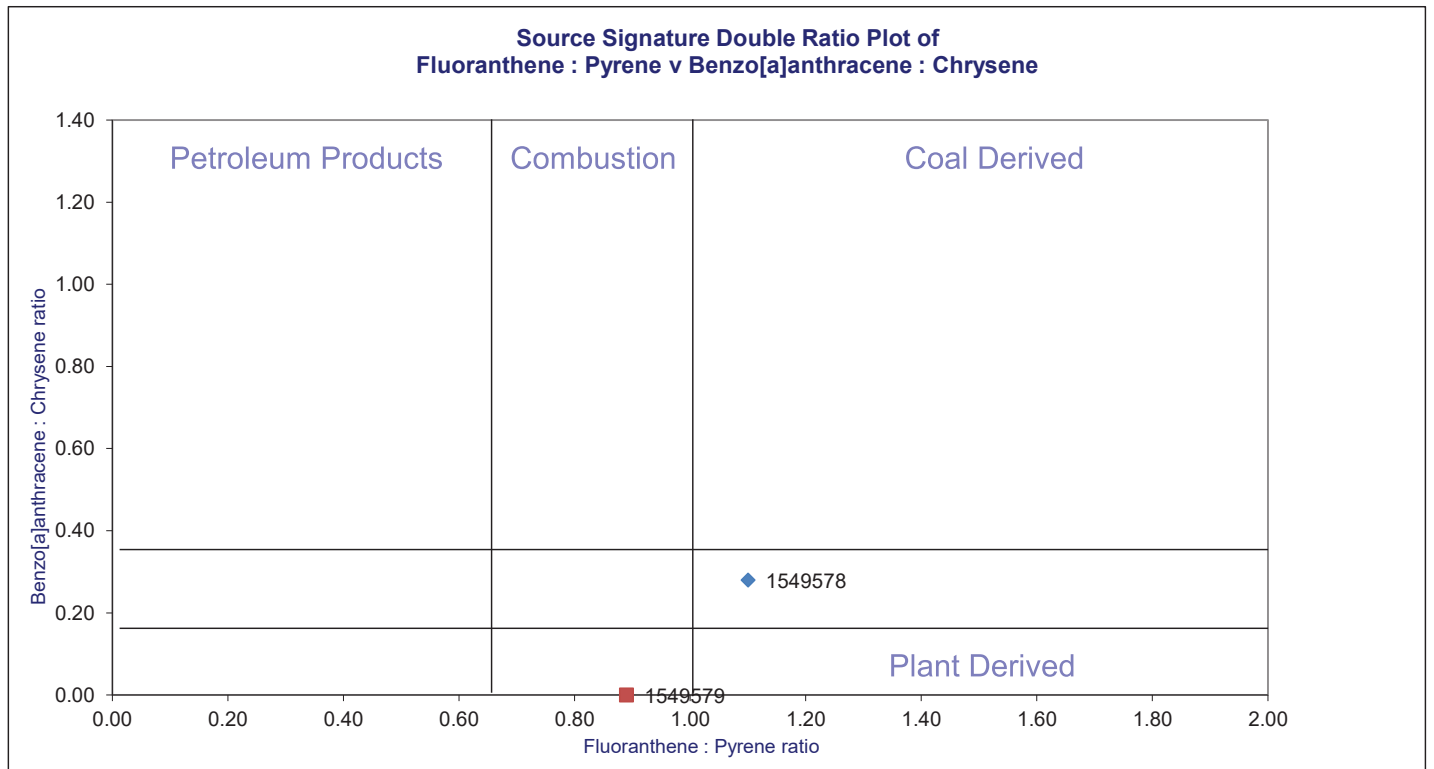
AA-Split Chromatogram on Soil Sample: 1549579



AA-Split Chromatogram on Soil Sample: 1549579



Double Ratio Plot



Sample No.	Fluoranthene	Pyrene	Benzo[a]Anthracene	Chrysene	Fluoranthene : Pyrene Ratio	Benzo[a]Anthracene : Chrysene Ratio
1549578	0.50	0.47	0.22	0.78	1.10	0.28
1549579	0.64	0.72	< 0.10	< 0.10	0.89	< 0.010

TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-44642	1549578	S		TM01				N/A
22-44642	1549578	S		TM01				n/a
22-44642	1549579	S		TM02				N/A
22-44642	1549579	S		TM02				n/a

Test Methods

SOP	Title	Parameters included	Method summary
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Diben[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



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t: 01622 850410

DETS Report No: 22-11037

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Sample Receipt Date: 23/12/2022

Sample Scheduled Date: 23/12/2022

Report Issue Number: 1

Reporting Date: 09/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 22-11037	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	SS01	SS02	SS03	SS04	SS05
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 09/01/2023	DETS Sample No	626249	626250	626251	626252	626253

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	8.0	7.9	7.8	7.7	7.5
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	21	35	14	21	12
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.02	0.03	0.01	0.02	0.01
Arsenic (As)	mg/kg	< 2	MCERTS	4	4	5	5	4
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	10	9	11	12	10
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	16	15	19	19	16
Lead (Pb)	mg/kg	< 3	MCERTS	14	12	15	16	14
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	13	12	15	16	14
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3	< 3	< 3	< 3
Vanadium (V)	mg/kg	< 1	MCERTS	12	11	14	14	12
Zinc (Zn)	mg/kg	< 3	MCERTS	48	45	57	52	49

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



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Soil Analysis Certificate						
DETS Report No: 22-11037	Date Sampled	22/12/22				
LK Consult Limited	Time Sampled	None Supplied				
Site Reference: Every Street	TP / BH No	SS06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR221029/DM	Depth (m)	None Supplied				
Reporting Date: 09/01/2023	DETS Sample No	626254				

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected			
pH	pH Units	N/a	MCERTS	7.5			
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	12			
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.01			
Arsenic (As)	mg/kg	< 2	MCERTS	4			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	12			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	16			
Lead (Pb)	mg/kg	< 3	MCERTS	17			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	17			
Selenium (Se)	mg/kg	< 2	MCERTS	< 3			
Vanadium (V)	mg/kg	< 1	MCERTS	13			
Zinc (Zn)	mg/kg	< 3	MCERTS	50			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-11037	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	SS01	SS02	SS03	SS04	SS05
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 09/01/2023	DETS Sample No	626249	626250	626251	626252	626253

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	0.18	< 0.1	0.14	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	0.24	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	0.20	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-11037	Date Sampled	22/12/22				
LK Consult Limited	Time Sampled	None Supplied				
Site Reference: Every Street	TP / BH No	SS06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR221029/DM	Depth (m)	None Supplied				
Reporting Date: 09/01/2023	DETS Sample No	626254				

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6			



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 22-11037	
LK Consult Limited	
Site Reference: Every Street	
Project / Job Ref: LKR 22 1029	
Order No: LKR221029/DM	
Reporting Date: 09/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
626249	SS01	None Supplied	None Supplied	12.1	Brown sandy clay with stones
626250	SS02	None Supplied	None Supplied	10.5	Brown sandy clay with stones
626251	SS03	None Supplied	None Supplied	14.6	Brown sandy clay with stones
626252	SS04	None Supplied	None Supplied	14.6	Brown sandy clay
626253	SS05	None Supplied	None Supplied	12.7	Brown sandy clay with stones
626254	SS06	None Supplied	None Supplied	12.1	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

Unsuitable Sample ^{1/5}



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 22-11037

LK Consult Limited

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Reporting Date: 09/01/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



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List of HWOL Acronyms and Operators

DETS Report No: 22-11037

LK Consult Limited

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Reporting Date: 09/01/2023

Acronym	Description
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
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det - Acronym



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DETS Report No: 22-11038

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Sample Receipt Date: 23/12/2022

Sample Scheduled Date: 23/12/2022

Report Issue Number: 2

Reporting Date: 12/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.
This report supersedes 22-11038, issue no.1.

Reason for re-issue:

Sample details amended.

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Soil Analysis Certificate						
DETS Report No: 22-11038	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	TP503a	TP503b	TP503c	TP503d	TP503e
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 12/01/2023	DETS Sample No	626256	626257	626258	626259	626260

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Detected
Sample Matrix ^(S)	Material Type	N/a	NONE					bundle of chrysotile
Asbestos Type ^(S)	PLM Result	N/a	ISO17025					Chrysotile
Asbestos Quantification ^(S)	%	< 0.001	ISO17025					< 0.001
pH	pH Units	N/a	MCERTS	8.0	8.1	8.1	7.8	8.1
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	20	32	26	87	30
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.02	0.03	0.03	0.09	0.03
Organic Matter (SOM)	%	< 0.1	MCERTS	4.4	4.4	8	5.5	5.4
Arsenic (As)	mg/kg	< 2	MCERTS	8	7	9	9	9
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.5	0.5	0.7	0.6	0.7
Chromium (Cr)	mg/kg	< 2	MCERTS	17	18	18	18	15
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	78	81	84	79	79
Lead (Pb)	mg/kg	< 3	MCERTS	131	107	410	147	112
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	18	19	22	22	17
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3	< 3	< 3	< 3
Vanadium (V)	mg/kg	< 1	MCERTS	18	17	20	19	15
Zinc (Zn)	mg/kg	< 3	MCERTS	111	116	139	126	113
Total Phenols (monohydric)	mg/kg	< 1	NONE	2.6	2.4	2.4	< 2	< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-11038	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	TP503a	TP503b	TP503c	TP503d	TP503e
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 12/01/2023	DETS Sample No	626256	626257	626258	626259	626260

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	0.21	0.33	< 0.1	0.29	0.20
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	1.37	1.22	0.61	1.14	1.25
Fluorene	mg/kg	< 0.1	MCERTS	1	0.79	0.40	0.76	0.81
Phenanthrene	mg/kg	< 0.1	MCERTS	9.37	7.30	3.68	6.65	7.29
Anthracene	mg/kg	< 0.1	MCERTS	2.14	1.61	0.80	1.41	1.67
Fluoranthene	mg/kg	< 0.1	MCERTS	15.60	11.70	5.63	8.53	11.20
Pyrene	mg/kg	< 0.1	MCERTS	12.80	10.40	4.87	7.45	9.84
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	4.84	4.94	2.38	3.49	4.59
Chrysene	mg/kg	< 0.1	MCERTS	4.08	4.15	1.92	2.62	3.43
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	3.86	4.77	1.80	2.40	3.75
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	1.13	1.23	0.74	0.95	0.93
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	3.82	4.63	2.12	2.68	3.80
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	1.52	1.95	0.86	1.02	1.36
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	0.29	0.36	0.15	0.17	0.24
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	1.17	1.45	0.61	0.76	1.01
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	63.2	56.9	26.6	40.3	51.4



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Soil Analysis Certificate - TPH LQM Banded

DETS Report No: 22-11038	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	TP503a	TP503b	TP503c	TP503d	TP503e
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 12/01/2023	DETS Sample No	626256	626257	626258	626259	626260

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	2	< 2
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C35 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	58	41	< 10	< 10
Aliphatic >C35 - C44 : EH_CU_1D_AL	mg/kg	< 10	NONE	< 10	12	< 10	< 10	< 10
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 30	NONE	< 30	70	41	< 30	< 30
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	11	9	5	8	9
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	64	60	27	31	46
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	73	115	59	40	43
Aromatic >C35 - C44 : EH_CU_1D_AR	mg/kg	< 10	NONE	< 10	13	< 10	< 10	< 10
Aromatic (>C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 30	NONE	148	197	92	79	99
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 60	NONE	148	268	132	81	99



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 22-11038	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	TP503a	TP503b	TP503c	TP503d	TP503e
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 12/01/2023	DETS Sample No	626256	626257	626258	626259	626260

Determinand	Unit	RL	Accreditation					
Benzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 22-11038	
LK Consult Limited	
Site Reference: Every Street	
Project / Job Ref: LKR 22 1029	
Order No: LKR221029/DM	
Reporting Date: 12/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
626256	TP503a	None Supplied	None Supplied	14.4	Brown sandy clay
626257	TP503b	None Supplied	None Supplied	14.9	Brown sandy clay with stones
626258	TP503c	None Supplied	None Supplied	14.8	Brown sandy clay with stones
626259	TP503d	None Supplied	None Supplied	13.7	Brown sandy clay with stones
626260	TP503e	None Supplied	None Supplied	11.2	Brown sandy clay with stones

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{u/s}

Unsuitable Sample ^{u/s}



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 22-11038

LK Consult Limited

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Reporting Date: 12/01/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



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List of HWOL Acronyms and Operators

DETS Report No: 22-11038

LK Consult Limited

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Reporting Date: 12/01/2023

Acronym	Description
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
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det - Acronym

Benzene - HS_1D_MS
Ethylbenzene - HS_1D_MS
MTBE - HS_1D_MS
TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
TPH LQM - Aliphatic >C10 - C12 - EH_CU_1D_AL
TPH LQM - Aliphatic >C12 - C16 - EH_CU_1D_AL
TPH LQM - Aliphatic >C16 - C35 - EH_CU_1D_AL
TPH LQM - Aliphatic >C35 - C44 - EH_CU_1D_AL
TPH LQM - Aliphatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AL
TPH LQM - Aliphatic >C5 - C6 - HS_1D_MS_AL
TPH LQM - Aliphatic >C6 - C8 - HS_1D_MS_AL
TPH LQM - Aliphatic >C8 - C10 - EH_CU_1D_AL
TPH LQM - Aromatic >C10 - C12 - EH_CU_1D_AR
TPH LQM - Aromatic >C12 - C16 - EH_CU_1D_AR
TPH LQM - Aromatic >C21 - C35 - EH_CU_1D_AR
TPH LQM - Aromatic >C35 - C44 - EH_CU_1D_AR
TPH LQM - Aromatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AR
TPH LQM - Aromatic >C5 - C7 - HS_1D_MS_AR
TPH LQM - Aromatic >C7 - C8 - HS_1D_MS_AR
TPH LQM - Aromatic >C8 - C10 - EH_CU_1D_AR
TPH LQM - Total >C5 - C44 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS



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Derwentside Environmental Testing Services Ltd
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DETS Report No: 23-00197

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Sample Receipt Date: 10/01/2023

Sample Scheduled Date: 10/01/2023

Report Issue Number: 1

Reporting Date: 16/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 23-00197	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR05				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627054				

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected			
pH	pH Units	N/a	MCERTS	8.7			
Total Cyanide	mg/kg	< 1	NONE	3			
Free Cyanide	mg/kg	< 1	NONE	< 1			
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	895			
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.89			
Organic Matter (SOM)	%	< 0.1	MCERTS	1.2			
Arsenic (As)	mg/kg	< 2	MCERTS	5			
W/S Boron	mg/kg	< 1	NONE	2.8			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.3			
Chromium (Cr)	mg/kg	< 2	MCERTS	14			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	16			
Lead (Pb)	mg/kg	< 3	MCERTS	15			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	21			
Selenium (Se)	mg/kg	< 2	MCERTS	< 3			
Vanadium (V)	mg/kg	< 1	MCERTS	14			
Zinc (Zn)	mg/kg	< 3	MCERTS	57			
Total Phenols (monohydric)	mg/kg	< 1	NONE	< 2			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



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Soil Analysis Certificate - Speciated PAHs

DETS Report No: 23-00197	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR05				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627054				

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	0.73			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	1.68			
Fluorene	mg/kg	< 0.1	MCERTS	1.23			
Phenanthrene	mg/kg	< 0.1	MCERTS	8.66			
Anthracene	mg/kg	< 0.1	MCERTS	2.01			
Fluoranthene	mg/kg	< 0.1	MCERTS	9.22			
Pyrene	mg/kg	< 0.1	MCERTS	7.90			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	3.49			
Chrysene	mg/kg	< 0.1	MCERTS	2.65			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	2.49			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	1.02			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	2.48			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.99			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	0.19			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.80			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	45.6			



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Soil Analysis Certificate - TPH LQM Banded

DETS Report No: 23-00197	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR05				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627054				

Determinand	Unit	RL	Accreditation				
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C16 - C35	mg/kg	< 10	MCERTS	< 10			
Aliphatic >C35 - C44	mg/kg	< 10	NONE	< 10			
Aliphatic (C5 - C44)	mg/kg	< 30	NONE	< 30			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2			
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2			
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	11			
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	36			
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	54			
Aromatic >C35 - C44	mg/kg	< 10	NONE	< 10			
Aromatic (>C5 - C44)	mg/kg	< 30	NONE	101			
Total >C5 - C44	mg/kg	< 60	NONE	101			



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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 23-00197	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR05				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627054				

Determinand	Unit	RL	Accreditation				
Benzene	ug/kg	< 2	MCERTS	< 2			
Toluene	ug/kg	< 5	MCERTS	< 5			
Ethylbenzene	ug/kg	< 2	MCERTS	< 2			
p & m-xylene	ug/kg	< 2	MCERTS	3			
o-xylene	ug/kg	< 2	MCERTS	< 2			
MTBE	ug/kg	< 5	MCERTS	< 5			



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 23-00197	
LK Remediate	
Site Reference: Every Street, Bury	
Project / Job Ref: LKR 22 1029	
Order No: LKR 221029/RC	
Reporting Date: 16/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
\$ 627054	CR05	None Supplied	None Supplied	5.2	Brown gravelly sand with stones

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

& samples received in inappropriate containers for hydrocarbon analysis

\$ samples exceeded recommended holding times



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 23-00197

LK Remediate

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Reporting Date: 16/01/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



Dave Anderson
LK Remediate
Unit 29, Eton Hill Business Park
Eton Hill Road
Radcliffe
M26 2ZS

Derwentside Environmental Testing Services Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 23-00198

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Sample Receipt Date: 10/01/2023

Sample Scheduled Date: 10/01/2023

Report Issue Number: 1

Reporting Date: 16/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 23-00198	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR07				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627055				

Determinand	Unit	RL	Accreditation	(n)				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected				
pH	pH Units	N/a	ISO17025	10.4				
Total Cyanide	mg/kg	< 1	NONE	3				
Free Cyanide	mg/kg	< 1	NONE	< 1				
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	ISO17025	303				
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	ISO17025	0.30				
Organic Matter (SOM)	%	< 0.1	ISO17025	5.7				
Arsenic (As)	mg/kg	< 2	ISO17025	9				
W/S Boron	mg/kg	< 1	NONE	< 1				
Cadmium (Cd)	mg/kg	< 0.2	ISO17025	0.4				
Chromium (Cr)	mg/kg	< 2	ISO17025	16				
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2				
Copper (Cu)	mg/kg	< 4	ISO17025	40				
Lead (Pb)	mg/kg	< 3	ISO17025	62				
Mercury (Hg)	mg/kg	< 1	ISO17025	< 1				
Nickel (Ni)	mg/kg	< 3	ISO17025	15				
Selenium (Se)	mg/kg	< 2	ISO17025	< 3				
Vanadium (V)	mg/kg	< 1	ISO17025	20				
Zinc (Zn)	mg/kg	< 3	ISO17025	85				
Total Phenols (monohydric)	mg/kg	< 1	NONE	< 2				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

(n) Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation



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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 23-00198	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR07				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627055				

Determinand	Unit	RL	Accreditation	(n)				
Naphthalene	mg/kg	< 0.1	ISO17025	3.50				
Acenaphthylene	mg/kg	< 0.1	ISO17025	< 0.1				
Acenaphthene	mg/kg	< 0.1	ISO17025	6.46				
Fluorene	mg/kg	< 0.1	ISO17025	4.97				
Phenanthrene	mg/kg	< 0.1	ISO17025	33.80				
Anthracene	mg/kg	< 0.1	ISO17025	7.63				
Fluoranthene	mg/kg	< 0.1	ISO17025	30.50				
Pyrene	mg/kg	< 0.1	ISO17025	25.10				
Benzo(a)anthracene	mg/kg	< 0.1	ISO17025	9.35				
Chrysene	mg/kg	< 0.1	ISO17025	7.69				
Benzo(b)fluoranthene	mg/kg	< 0.1	ISO17025	8.25				
Benzo(k)fluoranthene	mg/kg	< 0.1	ISO17025	2.79				
Benzo(a)pyrene	mg/kg	< 0.1	ISO17025	7.68				
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	ISO17025	3.01				
Dibenz(a,h)anthracene	mg/kg	< 0.1	ISO17025	0.57				
Benzo(ghi)perylene	mg/kg	< 0.1	ISO17025	2.34				
Total EPA-16 PAHs	mg/kg	< 1.6	ISO17025	154				

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Soil Analysis Certificate - TPH LQM Banded

DETS Report No: 23-00198	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR07				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627055				

Determinand	Unit	RL	Accreditation	(n)			
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	ISO17025	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	ISO17025	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	ISO17025	< 3			
Aliphatic >C16 - C35	mg/kg	< 10	ISO17025	< 10			
Aliphatic >C35 - C44	mg/kg	< 10	NONE	< 10			
Aliphatic (C5 - C44)	mg/kg	< 30	NONE	< 30			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	ISO17025	< 2			
Aromatic >C10 - C12	mg/kg	< 2	ISO17025	6			
Aromatic >C12 - C16	mg/kg	< 2	ISO17025	38			
Aromatic >C16 - C21	mg/kg	< 3	ISO17025	104			
Aromatic >C21 - C35	mg/kg	< 10	ISO17025	141			
Aromatic >C35 - C44	mg/kg	< 10	NONE	15			
Aromatic (>C5 - C44)	mg/kg	< 30	NONE	304			
Total >C5 - C44	mg/kg	< 60	NONE	304			

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 23-00198	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR07				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627055				

Determinand	Unit	RL	Accreditation	(n)				
Benzene	ug/kg	< 2	ISO17025	< 2				
Toluene	ug/kg	< 5	ISO17025	< 5				
Ethylbenzene	ug/kg	< 2	ISO17025	5				
p & m-xylene	ug/kg	< 2	ISO17025	8				
o-xylene	ug/kg	< 2	ISO17025	5				
MTBE	ug/kg	< 5	ISO17025	< 5				

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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 23-00198	
LK Remediate	
Site Reference: Every Street, Bury	
Project / Job Ref: LKR 22 1029	
Order No: LKR 221029/RC	
Reporting Date: 16/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
\$ 627055	CR07	None Supplied	None Supplied	8.2	Brown sandy gravel with stones and concrete

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

& samples received in inappropriate containers for hydrocarbon analysis

\$ samples exceeded recommended holding times



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 23-00198

LK Remediate

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Reporting Date: 16/01/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



Richard Clarke
LK Remediate
Unit 29, Eton Hill Business Park
Eton Hill Road
Radcliffe
M26 2ZS

Derwentside Environmental Testing Services Ltd
Unit 1
Rose Lane Industrial Estate
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Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 23-00199

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Sample Receipt Date: 10/01/2023

Sample Scheduled Date: 10/01/2023

Report Issue Number: 1

Reporting Date: 16/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 23-00199		Date Sampled	20/12/22			
LK Remediate		Time Sampled	None Supplied			
Site Reference: Every Street, Bury		TP / BH No	CR08			
Project / Job Ref: LKR 22 1029		Additional Refs	None Supplied			
Order No: LKR 221029/RC		Depth (m)	None Supplied			
Reporting Date: 16/01/2023		DETS Sample No	627056			

Determinand	Unit	RL	Accreditation	(n)				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Detected				
Sample Matrix ^(S)	Material Type	N/a	NONE	Chrysotile present in bundles				
Asbestos Type ^(S)	PLM Result	N/a	ISO17025	Chrysotile				
Asbestos Quantification ^(S)	%	< 0.001	ISO17025	< 0.001				
pH	pH Units	N/a	ISO17025	10.9				
Total Cyanide	mg/kg	< 1	NONE	< 1				
Free Cyanide	mg/kg	< 1	NONE	< 1				
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	ISO17025	536				
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	ISO17025	0.54				
Organic Matter (SOM)	%	< 0.1	ISO17025	4.6				
Arsenic (As)	mg/kg	< 2	ISO17025	9				
W/S Boron	mg/kg	< 1	NONE	< 1				
Cadmium (Cd)	mg/kg	< 0.2	ISO17025	0.7				
Chromium (Cr)	mg/kg	< 2	ISO17025	16				
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2				
Copper (Cu)	mg/kg	< 4	ISO17025	162				
Lead (Pb)	mg/kg	< 3	ISO17025	81				
Mercury (Hg)	mg/kg	< 1	ISO17025	< 1				
Nickel (Ni)	mg/kg	< 3	ISO17025	15				
Selenium (Se)	mg/kg	< 2	ISO17025	< 3				
Vanadium (V)	mg/kg	< 1	ISO17025	17				
Zinc (Zn)	mg/kg	< 3	ISO17025	121				
Total Phenols (monohydric)	mg/kg	< 1	NONE	< 2				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate - Speciated PAHs

DETS Report No: 23-00199	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR08				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627056				

Determinand	Unit	RL	Accreditation	(n)				
Naphthalene	mg/kg	< 0.1	ISO17025	3.88				
Acenaphthylene	mg/kg	< 0.1	ISO17025	< 0.1				
Acenaphthene	mg/kg	< 0.1	ISO17025	6.82				
Fluorene	mg/kg	< 0.1	ISO17025	4.96				
Phenanthrene	mg/kg	< 0.1	ISO17025	33.80				
Anthracene	mg/kg	< 0.1	ISO17025	7.71				
Fluoranthene	mg/kg	< 0.1	ISO17025	29.90				
Pyrene	mg/kg	< 0.1	ISO17025	24.60				
Benzo(a)anthracene	mg/kg	< 0.1	ISO17025	9.41				
Chrysene	mg/kg	< 0.1	ISO17025	7.90				
Benzo(b)fluoranthene	mg/kg	< 0.1	ISO17025	8.38				
Benzo(k)fluoranthene	mg/kg	< 0.1	ISO17025	3.50				
Benzo(a)pyrene	mg/kg	< 0.1	ISO17025	8.49				
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	ISO17025	2.83				
Dibenz(a,h)anthracene	mg/kg	< 0.1	ISO17025	0.55				
Benzo(ghi)perylene	mg/kg	< 0.1	ISO17025	2.12				
Total EPA-16 PAHs	mg/kg	< 1.6	ISO17025	155				

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Soil Analysis Certificate - TPH LQM Banded

DETS Report No: 23-00199	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR08				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627056				

Determinand	Unit	RL	Accreditation	(n)			
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	ISO17025	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	ISO17025	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	ISO17025	< 3			
Aliphatic >C16 - C35	mg/kg	< 10	ISO17025	119			
Aliphatic >C35 - C44	mg/kg	< 10	NONE	27			
Aliphatic (C5 - C44)	mg/kg	< 30	NONE	146			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	ISO17025	< 2			
Aromatic >C10 - C12	mg/kg	< 2	ISO17025	5			
Aromatic >C12 - C16	mg/kg	< 2	ISO17025	34			
Aromatic >C16 - C21	mg/kg	< 3	ISO17025	89			
Aromatic >C21 - C35	mg/kg	< 10	ISO17025	188			
Aromatic >C35 - C44	mg/kg	< 10	NONE	17			
Aromatic (>C5 - C44)	mg/kg	< 30	NONE	332			
Total >C5 - C44	mg/kg	< 60	NONE	479			

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 23-00199	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR08				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627056				

Determinand	Unit	RL	Accreditation	(n)				
Benzene	ug/kg	< 2	ISO17025	3				
Toluene	ug/kg	< 5	ISO17025	< 5				
Ethylbenzene	ug/kg	< 2	ISO17025	6				
p & m-xylene	ug/kg	< 2	ISO17025	10				
o-xylene	ug/kg	< 2	ISO17025	6				
MTBE	ug/kg	< 5	ISO17025	< 5				

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4480

Soil Analysis Certificate - Sample Descriptions

DETS Report No: 23-00199	
LK Remediate	
Site Reference: Every Street, Bury	
Project / Job Ref: LKR 22 1029	
Order No: LKR 221029/RC	
Reporting Date: 16/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
\$ 627056	CR08	None Supplied	None Supplied	9.5	Brown sandy gravel with stones and concrete

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

& samples received in inappropriate containers for hydrocarbon analysis

\$ samples exceeded recommended holding times



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 23-00199

LK Remediate

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Reporting Date: 16/01/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



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DETS Report No: 23-00200

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Sample Receipt Date: 10/01/2023

Sample Scheduled Date: 10/01/2023

Report Issue Number: 1

Reporting Date: 16/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 23-00200	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627057				

Determinand	Unit	RL	Accreditation	(n)				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected				
pH	pH Units	N/a	ISO17025	9.3				
Total Cyanide	mg/kg	< 1	NONE	< 1				
Free Cyanide	mg/kg	< 1	NONE	< 1				
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	ISO17025	153				
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	ISO17025	0.15				
Organic Matter (SOM)	%	< 0.1	ISO17025	10.7				
Arsenic (As)	mg/kg	< 2	ISO17025	7				
W/S Boron	mg/kg	< 1	NONE	< 1				
Cadmium (Cd)	mg/kg	< 0.2	ISO17025	0.5				
Chromium (Cr)	mg/kg	< 2	ISO17025	12				
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2				
Copper (Cu)	mg/kg	< 4	ISO17025	27				
Lead (Pb)	mg/kg	< 3	ISO17025	30				
Mercury (Hg)	mg/kg	< 1	ISO17025	< 1				
Nickel (Ni)	mg/kg	< 3	ISO17025	11				
Selenium (Se)	mg/kg	< 2	ISO17025	< 3				
Vanadium (V)	mg/kg	< 1	ISO17025	20				
Zinc (Zn)	mg/kg	< 3	ISO17025	59				
Total Phenols (monohydric)	mg/kg	< 1	NONE	< 2				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
 Subcontracted analysis (S)

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 23-00200	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627057				

Determinand	Unit	RL	Accreditation	(n)				
Naphthalene	mg/kg	< 0.1	ISO17025	2.91				
Acenaphthylene	mg/kg	< 0.1	ISO17025	< 0.1				
Acenaphthene	mg/kg	< 0.1	ISO17025	6.10				
Fluorene	mg/kg	< 0.1	ISO17025	4.33				
Phenanthrene	mg/kg	< 0.1	ISO17025	28.10				
Anthracene	mg/kg	< 0.1	ISO17025	6.27				
Fluoranthene	mg/kg	< 0.1	ISO17025	22.80				
Pyrene	mg/kg	< 0.1	ISO17025	19				
Benzo(a)anthracene	mg/kg	< 0.1	ISO17025	7.26				
Chrysene	mg/kg	< 0.1	ISO17025	5.91				
Benzo(b)fluoranthene	mg/kg	< 0.1	ISO17025	6.12				
Benzo(k)fluoranthene	mg/kg	< 0.1	ISO17025	2.74				
Benzo(a)pyrene	mg/kg	< 0.1	ISO17025	6.47				
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	ISO17025	2.08				
Dibenz(a,h)anthracene	mg/kg	< 0.1	ISO17025	0.42				
Benzo(ghi)perylene	mg/kg	< 0.1	ISO17025	1.49				
Total EPA-16 PAHs	mg/kg	< 1.6	ISO17025	122				

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Soil Analysis Certificate - TPH LQM Banded

DETS Report No: 23-00200	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627057				

Determinand	Unit	RL	Accreditation	(n)			
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	ISO17025	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	ISO17025	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	ISO17025	< 3			
Aliphatic >C16 - C35	mg/kg	< 10	ISO17025	140			
Aliphatic >C35 - C44	mg/kg	< 10	NONE	48			
Aliphatic (C5 - C44)	mg/kg	< 30	NONE	188			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	ISO17025	< 2			
Aromatic >C10 - C12	mg/kg	< 2	ISO17025	7			
Aromatic >C12 - C16	mg/kg	< 2	ISO17025	46			
Aromatic >C16 - C21	mg/kg	< 3	ISO17025	120			
Aromatic >C21 - C35	mg/kg	< 10	ISO17025	392			
Aromatic >C35 - C44	mg/kg	< 10	NONE	141			
Aromatic (>C5 - C44)	mg/kg	< 30	NONE	705			
Total >C5 - C44	mg/kg	< 60	NONE	893			

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 23-00200	Date Sampled	20/12/22				
LK Remediate	Time Sampled	None Supplied				
Site Reference: Every Street, Bury	TP / BH No	CR06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR 221029/RC	Depth (m)	None Supplied				
Reporting Date: 16/01/2023	DETS Sample No	627057				

Determinand	Unit	RL	Accreditation	(n)				
Benzene	ug/kg	< 2	ISO17025	< 2				
Toluene	ug/kg	< 5	ISO17025	< 5				
Ethylbenzene	ug/kg	< 2	ISO17025	< 2				
p & m-xylene	ug/kg	< 2	ISO17025	< 2				
o-xylene	ug/kg	< 2	ISO17025	< 2				
MTBE	ug/kg	< 5	ISO17025	< 5				

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Tel : 01622 850410



Soil Analysis Certificate - Sample Descriptions

DETS Report No: 23-00200	
LK Remediate	
Site Reference: Every Street, Bury	
Project / Job Ref: LKR 22 1029	
Order No: LKR 221029/RC	
Reporting Date: 16/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
\$ 627057	CR06	None Supplied	None Supplied	5.1	Brown sandy gravel with stones and concrete

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

& samples received in inappropriate containers for hydrocarbon analysis

\$ samples exceeded recommended holding times



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 23-00200

LK Remediate

Site Reference: Every Street, Bury

Project / Job Ref: LKR 22 1029

Order No: LKR 221029/RC

Reporting Date: 16/01/2023

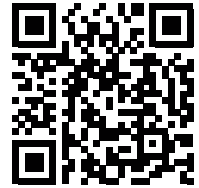
Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



VDTCP-82MBT-VKIK9

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

LKR221029[3]

Description/Comments

Project

LKR221029/RC

Site

Every Street, Bury

Classified by

Name: **Colin Crompton**
Date: **22 Feb 2023 10:17 GMT**
Telephone: **0161 763 7200**

Company: **LK Group**
Unit 29, Eton Business Park
Eton Hill Rd, Radcliffe
Greater Manchester
M26 2ZS

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazardWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

08 Oct 2020

Next 3 year Refresher due by Oct 2023

Purpose of classification

7 - Disposal of Waste

Address of the waste

Every Street, Bury

Post Code BL9 0DN

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Development of previously used land

Description of the specific process, sub-process and/or activity that created the waste

Excavation of soils for construction

Description of the waste

Made ground

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	-503N-07/11/2022-		Non Hazardous		3
2	-503S-07/11/2022-		Non Hazardous		6
3	-503E-07/11/2022-		Non Hazardous		9
4	-503W-07/11/2022-		Non Hazardous		12
5	-503B-07/11/2022-		Non Hazardous		15

Related documents

#	Name	Description
1	HWOL_22-42775-20230116 184714.hwol	Eurofins Chemtest .hwol file used to populate the Job
2	LK SUITE 1 - 5	waste stream template used to create this Job

Report

Created by: Colin Crompton

Created date: 22 Feb 2023 10:17 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	18
Appendix B: Rationale for selection of metal species	20
Appendix C: Version	20

Classification of sample: -503N-07/11/2022-

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-503N-07/11/2022-	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
11% (wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				8.9	mg/kg	1.32	10.458	mg/kg	0.00105 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				1	mg/kg	1.142	1.017	mg/kg	0.000102 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30	mg/kg	1.462	39.024	mg/kg	0.0039 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				220	mg/kg	1.126	220.449	mg/kg	0.022 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				0.2	mg/kg	1.353	0.241	mg/kg	0.0000241 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				30	mg/kg	1.273	33.978	mg/kg	0.0034 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	320	mg/kg		284.8	mg/kg	0.0285 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.61	mg/kg	1.405	0.763	mg/kg	0.0000763 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				26	mg/kg	1.785	41.309	mg/kg	0.00413 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				260	mg/kg	1.245	288.027	mg/kg	0.0288 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.66	mg/kg	3.22	1.891	mg/kg	0.000189 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group		TPH		428.5	mg/kg		381.365	mg/kg	0.0381 %	✓	
14	confirm TPH has NOT arisen from diesel or petrol				☑							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
16	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				1.6 mg/kg	1.884	2.683 mg/kg	0.000268 %	✓		
21	pH PH				8.8 pH		8.8 pH	8.8 pH			
22	naphthalene 601-052-00-2	202-049-5	91-20-3		0.72 mg/kg		0.641 mg/kg	0.0000641 %	✓		
23	acenaphthylene 205-917-1	208-96-8			0.36 mg/kg		0.32 mg/kg	0.000032 %	✓		
24	acenaphthene 201-469-6	83-32-9			2.5 mg/kg		2.225 mg/kg	0.000223 %	✓		
25	fluorene 201-695-5	86-73-7			1.6 mg/kg		1.424 mg/kg	0.000142 %	✓		
26	phenanthrene 201-581-5	85-01-8			20 mg/kg		17.8 mg/kg	0.00178 %	✓		
27	anthracene 204-371-1	120-12-7			4.8 mg/kg		4.272 mg/kg	0.000427 %	✓		
28	fluoranthene 205-912-4	206-44-0			37 mg/kg		32.93 mg/kg	0.00329 %	✓		
29	pyrene 204-927-3	129-00-0			32 mg/kg		28.48 mg/kg	0.00285 %	✓		
30	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		17 mg/kg		15.13 mg/kg	0.00151 %	✓		
31	chrysene 601-048-00-0	205-923-4	218-01-9		16 mg/kg		14.24 mg/kg	0.00142 %	✓		
32	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		21 mg/kg		18.69 mg/kg	0.00187 %	✓		
33	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		8 mg/kg		7.12 mg/kg	0.000712 %	✓		
34	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		21 mg/kg		18.69 mg/kg	0.00187 %	✓		
35	indeno[123-cd]pyrene 205-893-2	193-39-5			12 mg/kg		10.68 mg/kg	0.00107 %	✓		
36	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		2.1 mg/kg		1.869 mg/kg	0.000187 %	✓		
37	benzo[ghi]perylene 205-883-8	191-24-2			11 mg/kg		9.79 mg/kg	0.000979 %	✓		
38	monohydric phenols P1186				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.149 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". No visual or olfactory evidence of contamination and no free draining liquid.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0381%)

Classification of sample: -503S-07/11/2022-

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name: -503S-07/11/2022-	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content: 14% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				7.1	mg/kg	1.32	8.062	mg/kg	0.000806 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				0.54	mg/kg	1.142	0.53	mg/kg	0.000053 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				21	mg/kg	1.462	26.396	mg/kg	0.00264 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				64	mg/kg	1.126	61.969	mg/kg	0.0062 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				0.1	mg/kg	1.353	0.116	mg/kg	0.0000116 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				21	mg/kg	1.273	22.983	mg/kg	0.0023 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	190	mg/kg		163.4	mg/kg	0.0163 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.57	mg/kg	1.405	0.689	mg/kg	0.0000689 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				18	mg/kg	1.785	27.635	mg/kg	0.00276 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				210	mg/kg	1.245	224.795	mg/kg	0.0225 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.9	mg/kg	3.22	2.492	mg/kg	0.000249 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group				943.1	mg/kg		811.066	mg/kg	0.0811 %	✓	
			TPH									
14	confirm TPH has NOT arisen from diesel or petrol				☒							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
16	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
17	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
18	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
19	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]							
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				4.8 mg/kg	1.884	7.777 mg/kg	0.000778 %	✓	
	006-007-00-5									
21	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
22	naphthalene				0.75 mg/kg		0.645 mg/kg	0.0000645 %	✓	
	601-052-00-2	202-049-5	91-20-3							
23	acenaphthylene				0.25 mg/kg		0.215 mg/kg	0.0000215 %	✓	
		205-917-1	208-96-8							
24	acenaphthene				2.7 mg/kg		2.322 mg/kg	0.000232 %	✓	
		201-469-6	83-32-9							
25	fluorene				2.1 mg/kg		1.806 mg/kg	0.000181 %	✓	
		201-695-5	86-73-7							
26	phenanthrene				19 mg/kg		16.34 mg/kg	0.00163 %	✓	
		201-581-5	85-01-8							
27	anthracene				4.7 mg/kg		4.042 mg/kg	0.000404 %	✓	
		204-371-1	120-12-7							
28	fluoranthene				30 mg/kg		25.8 mg/kg	0.00258 %	✓	
		205-912-4	206-44-0							
29	pyrene				26 mg/kg		22.36 mg/kg	0.00224 %	✓	
		204-927-3	129-00-0							
30	benzo[a]anthracene				13 mg/kg		11.18 mg/kg	0.00112 %	✓	
	601-033-00-9	200-280-6	56-55-3							
31	chrysene				13 mg/kg		11.18 mg/kg	0.00112 %	✓	
	601-048-00-0	205-923-4	218-01-9							
32	benzo[b]fluoranthene				16 mg/kg		13.76 mg/kg	0.00138 %	✓	
	601-034-00-4	205-911-9	205-99-2							
33	benzo[k]fluoranthene				6.3 mg/kg		5.418 mg/kg	0.000542 %	✓	
	601-036-00-5	205-916-6	207-08-9							
34	benzo[a]pyrene; benzo[def]chrysene				16 mg/kg		13.76 mg/kg	0.00138 %	✓	
	601-032-00-3	200-028-5	50-32-8							
35	indeno[123-cd]pyrene				9.2 mg/kg		7.912 mg/kg	0.000791 %	✓	
		205-893-2	193-39-5							
36	dibenz[a,h]anthracene				1.6 mg/kg		1.376 mg/kg	0.000138 %	✓	
	601-041-00-2	200-181-8	53-70-3							
37	benzo[ghi]perylene				8 mg/kg		6.88 mg/kg	0.000688 %	✓	
		205-883-8	191-24-2							
38	asbestos				<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
39	monohydric phenols		P1186		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.151 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". No visual or olfactory evidence of contamination and no free draining liquid.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0811%)

Classification of sample: -503E-07/11/2022-

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-503E-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
13% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				6.2	mg/kg	1.32	7.122	mg/kg	0.000712 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				0.78	mg/kg	1.142	0.775	mg/kg	0.0000775 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				23	mg/kg	1.462	29.246	mg/kg	0.00292 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				79	mg/kg	1.126	77.382	mg/kg	0.00774 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				0.13	mg/kg	1.353	0.153	mg/kg	0.0000153 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				25	mg/kg	1.273	27.679	mg/kg	0.00277 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	420	mg/kg		365.4	mg/kg	0.0365 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.43	mg/kg	1.405	0.526	mg/kg	0.0000526 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				20	mg/kg	1.785	31.062	mg/kg	0.00311 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				190	mg/kg	1.245	205.751	mg/kg	0.0206 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.98	mg/kg	3.22	2.745	mg/kg	0.000275 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group		TPH		507.5	mg/kg		441.525	mg/kg	0.0442 %	✓	
14	confirm TPH has NOT arisen from diesel or petrol				☒							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane 603-181-00-X	216-653-1	1634-04-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
16	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
17	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
18	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
19	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				1.5 mg/kg	1.884	2.459 mg/kg	0.000246 %	✓		
21	pH PH				8.5 pH		8.5 pH	8.5 pH			
22	naphthalene 601-052-00-2	202-049-5	91-20-3		0.45 mg/kg		0.391 mg/kg	0.0000391 %	✓		
23	acenaphthylene 205-917-1	208-96-8			0.26 mg/kg		0.226 mg/kg	0.0000226 %	✓		
24	acenaphthene 201-469-6	83-32-9			1.3 mg/kg		1.131 mg/kg	0.000113 %	✓		
25	fluorene 201-695-5	86-73-7			1 mg/kg		0.87 mg/kg	0.000087 %	✓		
26	phenanthrene 201-581-5	85-01-8			9.7 mg/kg		8.439 mg/kg	0.000844 %	✓		
27	anthracene 204-371-1	120-12-7			2.8 mg/kg		2.436 mg/kg	0.000244 %	✓		
28	fluoranthene 205-912-4	206-44-0			21 mg/kg		18.27 mg/kg	0.00183 %	✓		
29	pyrene 204-927-3	129-00-0			17 mg/kg		14.79 mg/kg	0.00148 %	✓		
30	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		9.5 mg/kg		8.265 mg/kg	0.000827 %	✓		
31	chrysene 601-048-00-0	205-923-4	218-01-9		8.8 mg/kg		7.656 mg/kg	0.000766 %	✓		
32	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		12 mg/kg		10.44 mg/kg	0.00104 %	✓		
33	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		4.4 mg/kg		3.828 mg/kg	0.000383 %	✓		
34	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		12 mg/kg		10.44 mg/kg	0.00104 %	✓		
35	indeno[123-cd]pyrene 205-893-2	193-39-5			7.1 mg/kg		6.177 mg/kg	0.000618 %	✓		
36	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		1.2 mg/kg		1.044 mg/kg	0.000104 %	✓		
37	benzo[ghi]perylene 205-883-8	191-24-2			6.2 mg/kg		5.394 mg/kg	0.000539 %	✓		
38	monohydric phenols P1186				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.129 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". No visual or olfactory evidence of contamination and no free draining liquid.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0442%)

Classification of sample: -503W-07/11/2022-

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-503W-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
15%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				9 mg/kg	1.32	10.1 mg/kg	0.00101 %	✓		
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				0.68 mg/kg	1.142	0.66 mg/kg	0.000066 %	✓		
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27 mg/kg	1.462	33.543 mg/kg	0.00335 %	✓		
		215-160-9	1308-38-9								
4	copper { dicopper oxide; copper (I) oxide }				89 mg/kg	1.126	85.173 mg/kg	0.00852 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
5	mercury { mercury dichloride }				0.14 mg/kg	1.353	0.161 mg/kg	0.0000161 %	✓		
	080-010-00-X	231-299-8	7487-94-7								
6	nickel { nickel(II) oxide (nickel monoxide) }				30 mg/kg	1.273	32.451 mg/kg	0.00325 %	✓		
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]								
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	200 mg/kg		170 mg/kg	0.017 %	✓		
	082-001-00-6										
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.5 mg/kg	1.405	0.597 mg/kg	0.0000597 %	✓		
	034-002-00-8										
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				25 mg/kg	1.785	37.935 mg/kg	0.00379 %	✓		
	023-001-00-8	215-239-8	1314-62-1								
10	zinc { zinc oxide }				220 mg/kg	1.245	232.762 mg/kg	0.0233 %	✓		
	030-013-00-7	215-222-5	1314-13-2								
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
12	boron { diboron trioxide; boric oxide }				0.89 mg/kg	3.22	2.436 mg/kg	0.000244 %	✓		
	005-008-00-8	215-125-8	1303-86-2								
13	TPH (C6 to C40) petroleum group				690 mg/kg		586.5 mg/kg	0.0587 %	✓		
			TPH								
14	confirm TPH has NOT arisen from diesel or petrol				☑						

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
19	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			2.7 mg/kg	1.884	4.324 mg/kg	0.000432 %	✓	
21	pH				8.6 pH		8.6 pH	8.6 pH		
22	naphthalene	601-052-00-2	202-049-5	91-20-3	0.26 mg/kg		0.221 mg/kg	0.0000221 %	✓	
23	acenaphthylene		205-917-1	208-96-8	0.15 mg/kg		0.128 mg/kg	0.0000128 %	✓	
24	acenaphthene		201-469-6	83-32-9	0.54 mg/kg		0.459 mg/kg	0.0000459 %	✓	
25	fluorene		201-695-5	86-73-7	0.44 mg/kg		0.374 mg/kg	0.0000374 %	✓	
26	phenanthrene		201-581-5	85-01-8	7.1 mg/kg		6.035 mg/kg	0.000603 %	✓	
27	anthracene		204-371-1	120-12-7	1.7 mg/kg		1.445 mg/kg	0.000145 %	✓	
28	fluoranthene		205-912-4	206-44-0	14 mg/kg		11.9 mg/kg	0.00119 %	✓	
29	pyrene		204-927-3	129-00-0	12 mg/kg		10.2 mg/kg	0.00102 %	✓	
30	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	7.7 mg/kg		6.545 mg/kg	0.000655 %	✓	
31	chrysene	601-048-00-0	205-923-4	218-01-9	6.2 mg/kg		5.27 mg/kg	0.000527 %	✓	
32	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	9 mg/kg		7.65 mg/kg	0.000765 %	✓	
33	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	3.6 mg/kg		3.06 mg/kg	0.000306 %	✓	
34	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	9.7 mg/kg		8.245 mg/kg	0.000824 %	✓	
35	indeno[123-cd]pyrene		205-893-2	193-39-5	5.9 mg/kg		5.015 mg/kg	0.000502 %	✓	
36	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.99 mg/kg		0.842 mg/kg	0.0000841 %	✓	
37	benzo[ghi]perylene		205-883-8	191-24-2	4.9 mg/kg		4.165 mg/kg	0.000417 %	✓	
38	monohydric phenols			P1186	<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.127 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". No visual or olfactory evidence of contamination and no free draining liquid.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0587%)

Classification of sample: -503B-07/11/2022-

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-503B-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
12% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				4.5	mg/kg	1.32	5.228	mg/kg	0.000523 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				0.65	mg/kg	1.142	0.653	mg/kg	0.0000653 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				22	mg/kg	1.462	28.296	mg/kg	0.00283 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				64	mg/kg	1.126	63.41	mg/kg	0.00634 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				0.08	mg/kg	1.353	0.0953	mg/kg	0.00000953 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				24	mg/kg	1.273	26.877	mg/kg	0.00269 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	200	mg/kg		176	mg/kg	0.0176 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.36	mg/kg	1.405	0.445	mg/kg	0.0000445 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				19	mg/kg	1.785	29.848	mg/kg	0.00298 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				170	mg/kg	1.245	186.209	mg/kg	0.0186 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.83	mg/kg	3.22	2.352	mg/kg	0.000235 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group		TPH		<12.5	mg/kg		<12.5	mg/kg	<0.00125 %		<LOD
14	confirm TPH has NOT arisen from diesel or petrol				☑							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
16	benzene	601-020-00-8	200-753-7	71-43-2	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
17	toluene	601-021-00-3	203-625-9	108-88-3	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
18	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
19	xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]	<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
20	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5			1.1 mg/kg	1.884	1.824 mg/kg	0.000182 %	✓		
21	pH		PH		8.5 pH		8.5 pH	8.5 pH			
22	naphthalene	601-052-00-2	202-049-5	91-20-3	0.29 mg/kg		0.255 mg/kg	0.0000255 %	✓		
23	acenaphthylene		205-917-1	208-96-8	0.17 mg/kg		0.15 mg/kg	0.000015 %	✓		
24	acenaphthene		201-469-6	83-32-9	0.63 mg/kg		0.554 mg/kg	0.0000554 %	✓		
25	fluorene		201-695-5	86-73-7	0.5 mg/kg		0.44 mg/kg	0.000044 %	✓		
26	phenanthrene		201-581-5	85-01-8	4.1 mg/kg		3.608 mg/kg	0.000361 %	✓		
27	anthracene		204-371-1	120-12-7	1.2 mg/kg		1.056 mg/kg	0.000106 %	✓		
28	fluoranthene		205-912-4	206-44-0	9.1 mg/kg		8.008 mg/kg	0.000801 %	✓		
29	pyrene		204-927-3	129-00-0	7.8 mg/kg		6.864 mg/kg	0.000686 %	✓		
30	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	4.3 mg/kg		3.784 mg/kg	0.000378 %	✓		
31	chrysene	601-048-00-0	205-923-4	218-01-9	4.1 mg/kg		3.608 mg/kg	0.000361 %	✓		
32	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	6.2 mg/kg		5.456 mg/kg	0.000546 %	✓		
33	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	2.1 mg/kg		1.848 mg/kg	0.000185 %	✓		
34	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	6.2 mg/kg		5.456 mg/kg	0.000546 %	✓		
35	indeno[123-cd]pyrene		205-893-2	193-39-5	3.9 mg/kg		3.432 mg/kg	0.000343 %	✓		
36	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.54 mg/kg		0.475 mg/kg	0.0000475 %	✓		
37	benzo[ghi]perylene		205-883-8	191-24-2	3.5 mg/kg		3.08 mg/kg	0.000308 %	✓		
38	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5	40 mg/kg		35.2 mg/kg	0.00352 %	✓		

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
39	●	monohydric phenols			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			P1186							
Total:								0.0618 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
●	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

• chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332, Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Resp. Sens. 1; H334, Skin Sens. 1; H317, Repr. 1B; H360FD, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• lead compounds with the exception of those specified elsewhere in this Annex

GB MCL index number: 082-001-00-6

Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium

www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

• divanadium pentaoxide; vanadium pentoxide (EC Number: 215-239-8, CAS Number: 1314-62-1)

GB MCL index number: 023-001-00-8

Description/Comments:

Additional Hazard Statement(s): Carc. 1B; H350, Acute Tox. 3; H301, Acute Tox. 2; H330

Reason for additional Hazards Statement(s):

20 Sep 2022 - Carc. 1B; H350 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 3; H301 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 3; H301". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 2; H330 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 2; H330". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

• TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

• confirm TPH has NOT arisen from diesel or petrol

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

• salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

• pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

• **acenaphthylene** (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

• **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

• **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

• **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

• **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

• **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)

Data source: CLP combined data

Data source date: 26 Mar 2019

Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 £ conc. < 3 % , Eye Irrit. 2; H319 1 £ conc. < 3 % , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides.

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel(II) oxide (nickel monoxide)}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Most conservative species.

zinc {zinc oxide}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.51.5529.10230 (20 Feb 2023)
HazWasteOnline Database: 2023.51.5529.10230 (20 Feb 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

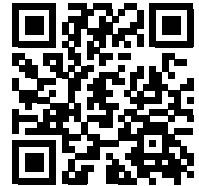
2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



KP37A-007QD-63QK4

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Job name

LKR221029[2]

Description/Comments

Project

LKR221029

Site

Every Street, Bury

Classified by

Name: **Peter Dunn**
 Date: **22 Feb 2023 07:50 GMT**
 Telephone: **0161 763 7200**

Company: **LK Group**

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification
 Most recent 3 year Refresher

Date

18 Sep 2019
 02 Aug 2022

Next 3 year Refresher due by Aug 2025

Purpose of classification

2 - Material Characterisation

Address of the waste

Every Street, Bury

Post Code N/A

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Development of brownfield land

Description of the specific process, sub-process and/or activity that created the waste

Construction

Description of the waste

Made ground and soil

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	-512N-07/11/2022-		Non Hazardous		3
2	-512S-07/11/2022-		Non Hazardous		6
3	-512E-07/11/2022-		Non Hazardous		9
4	-512W-07/11/2022-		Non Hazardous		12
5	-512B-07/11/2022-		Non Hazardous		15

Related documents

#	Name	Description
1	HWOL_22-42791-20230103 154418.hwol	Eurofins Chemtest .hwol file used to populate the Job
2	LK SUITE 1 - 5	waste stream template used to create this Job

Report

Created by: Peter Dunn

Created date: 22 Feb 2023 07:50 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	18
Appendix B: Rationale for selection of metal species	19
Appendix C: Version	20

Classification of sample: -512N-07/11/2022-

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-512N-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
12% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				6.9	mg/kg	1.32	8.017	mg/kg	0.000802 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				0.91	mg/kg	1.142	0.915	mg/kg	0.0000915 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36	mg/kg	1.462	46.302	mg/kg	0.00463 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				66	mg/kg	1.126	65.392	mg/kg	0.00654 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				0.13	mg/kg	1.353	0.155	mg/kg	0.0000155 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				28	mg/kg	1.273	31.357	mg/kg	0.00314 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	180	mg/kg		158.4	mg/kg	0.0158 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.72	mg/kg	1.405	0.89	mg/kg	0.000089 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				22	mg/kg	1.785	34.561	mg/kg	0.00346 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				210	mg/kg	1.245	230.023	mg/kg	0.023 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.65	mg/kg	3.22	1.842	mg/kg	0.000184 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group				888.2	mg/kg		781.616	mg/kg	0.0782 %	✓	
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
16	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
17	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
18	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
19	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %			<LOD
20	pH		PH		8.6 pH		8.6 pH	8.6 pH			
21	naphthalene 601-052-00-2	202-049-5	91-20-3		0.55 mg/kg		0.484 mg/kg	0.0000484 %		✓	
22	acenaphthylene 205-917-1	208-96-8			0.26 mg/kg		0.229 mg/kg	0.0000229 %		✓	
23	acenaphthene 201-469-6	83-32-9			2 mg/kg		1.76 mg/kg	0.000176 %		✓	
24	fluorene 201-695-5	86-73-7			1.4 mg/kg		1.232 mg/kg	0.000123 %		✓	
25	phenanthrene 201-581-5	85-01-8			16 mg/kg		14.08 mg/kg	0.00141 %		✓	
26	anthracene 204-371-1	120-12-7			3.8 mg/kg		3.344 mg/kg	0.000334 %		✓	
27	fluoranthene 205-912-4	206-44-0			37 mg/kg		32.56 mg/kg	0.00326 %		✓	
28	pyrene 204-927-3	129-00-0			33 mg/kg		29.04 mg/kg	0.0029 %		✓	
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		18 mg/kg		15.84 mg/kg	0.00158 %		✓	
30	chrysene 601-048-00-0	205-923-4	218-01-9		17 mg/kg		14.96 mg/kg	0.0015 %		✓	
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		25 mg/kg		22 mg/kg	0.0022 %		✓	
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		9.6 mg/kg		8.448 mg/kg	0.000845 %		✓	
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		24 mg/kg		21.12 mg/kg	0.00211 %		✓	
34	indeno[123-cd]pyrene 205-893-2	193-39-5			16 mg/kg		14.08 mg/kg	0.00141 %		✓	
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		2.6 mg/kg		2.288 mg/kg	0.000229 %		✓	
36	benzo[ghi]perylene 205-883-8	191-24-2			12 mg/kg		10.56 mg/kg	0.00106 %		✓	
37	asbestos 650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		20 mg/kg		17.6 mg/kg	0.00176 %		✓	
38	monohydric phenols P1186				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.157 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0782%)

Classification of sample: -512S-07/11/2022-

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-512S-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number								
1		arsenic { arsenic trioxide }			6.9	mg/kg	1.32	7.835	mg/kg	0.000783 %	✓	
		033-003-00-0	215-481-4	1327-53-3								
2		cadmium { cadmium oxide }			0.42	mg/kg	1.142	0.413	mg/kg	0.0000413 %	✓	
		048-002-00-0	215-146-2	1306-19-0								
3		chromium in chromium(III) compounds {  chromium(III) oxide (worst case) }			14	mg/kg	1.462	17.597	mg/kg	0.00176 %	✓	
			215-160-9	1308-38-9								
4		copper { dicopper oxide ; copper (I) oxide }			58	mg/kg	1.126	56.159	mg/kg	0.00562 %	✓	
		029-002-00-X	215-270-7	1317-39-1								
5		mercury { mercury dichloride }			0.12	mg/kg	1.353	0.14	mg/kg	0.000014 %	✓	
		080-010-00-X	231-299-8	7487-94-7								
6		nickel { nickel(II) oxide (nickel monoxide) }			16	mg/kg	1.273	17.511	mg/kg	0.00175 %	✓	
		028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]								
7		lead {  lead compounds with the exception of those specified elsewhere in this Annex }			120	mg/kg		103.2	mg/kg	0.0103 %	✓	
		082-001-00-6										
8		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }			0.37	mg/kg	1.405	0.447	mg/kg	0.0000447 %	✓	
		034-002-00-8										
9		vanadium {  divanadium pentaoxide; vanadium pentoxide }			16	mg/kg	1.785	24.564	mg/kg	0.00246 %	✓	
		023-001-00-8	215-239-8	1314-62-1								
10		zinc { zinc oxide }			100	mg/kg	1.245	107.045	mg/kg	0.0107 %	✓	
		030-013-00-7	215-222-5	1314-13-2								
11		chromium in chromium(VI) compounds { chromium(VI) oxide }			<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
		024-001-00-0	215-607-8	1333-82-0								
12		boron { diboron trioxide ; boric oxide }			0.75	mg/kg	3.22	2.077	mg/kg	0.000208 %	✓	
		005-008-00-8	215-125-8	1303-86-2								
13		TPH (C6 to C40) petroleum group			1041.9	mg/kg		896.034	mg/kg	0.0896 %	✓	
				TPH								
14		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane			<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
15	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
16	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
17	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
18	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
19	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<LOD
20	pH PH				8.4 pH		8.4 pH	8.4 pH		
21	naphthalene 601-052-00-2	202-049-5	91-20-3		0.36 mg/kg		0.31 mg/kg	0.000031 %	✓	
22	acenaphthylene 205-917-1	208-96-8			0.17 mg/kg		0.146 mg/kg	0.0000146 %	✓	
23	acenaphthene 201-469-6	83-32-9			2.4 mg/kg		2.064 mg/kg	0.000206 %	✓	
24	fluorene 201-695-5	86-73-7			1.6 mg/kg		1.376 mg/kg	0.000138 %	✓	
25	phenanthrene 201-581-5	85-01-8			16 mg/kg		13.76 mg/kg	0.00138 %	✓	
26	anthracene 204-371-1	120-12-7			4 mg/kg		3.44 mg/kg	0.000344 %	✓	
27	fluoranthene 205-912-4	206-44-0			30 mg/kg		25.8 mg/kg	0.00258 %	✓	
28	pyrene 204-927-3	129-00-0			26 mg/kg		22.36 mg/kg	0.00224 %	✓	
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		13 mg/kg		11.18 mg/kg	0.00112 %	✓	
30	chrysene 601-048-00-0	205-923-4	218-01-9		12 mg/kg		10.32 mg/kg	0.00103 %	✓	
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		16 mg/kg		13.76 mg/kg	0.00138 %	✓	
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		5.1 mg/kg		4.386 mg/kg	0.000439 %	✓	
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		15 mg/kg		12.9 mg/kg	0.00129 %	✓	
34	indeno[123-cd]pyrene 205-893-2	193-39-5			8.4 mg/kg		7.224 mg/kg	0.000722 %	✓	
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		1.4 mg/kg		1.204 mg/kg	0.00012 %	✓	
36	benzo[ghi]perylene 205-883-8	191-24-2			7.4 mg/kg		6.364 mg/kg	0.000636 %	✓	
37	asbestos 650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		50 mg/kg		43 mg/kg	0.0043 %	✓	
38	monohydric phenols P1186				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
Total:								0.141 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0896%)

Classification of sample: -512E-07/11/2022-

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-512E-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
13% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				5.6	mg/kg	1.32	6.433	mg/kg	0.000643 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				0.53	mg/kg	1.142	0.527	mg/kg	0.0000527 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20	mg/kg	1.462	25.431	mg/kg	0.00254 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				62	mg/kg	1.126	60.73	mg/kg	0.00607 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				0.14	mg/kg	1.353	0.165	mg/kg	0.0000165 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				18	mg/kg	1.273	19.929	mg/kg	0.00199 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	170	mg/kg		147.9	mg/kg	0.0148 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.29	mg/kg	1.405	0.354	mg/kg	0.0000354 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				14	mg/kg	1.785	21.744	mg/kg	0.00217 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				140	mg/kg	1.245	151.606	mg/kg	0.0152 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.76	mg/kg	3.22	2.129	mg/kg	0.000213 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group				390	mg/kg		339.3	mg/kg	0.0339 %	✓	
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
16	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
17	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
18	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
19	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				0.8 mg/kg	1.884	1.311 mg/kg	0.000131 %		✓	
20	pH		PH		8.4 pH		8.4 pH	8.4 pH			
21	naphthalene 601-052-00-2	202-049-5	91-20-3		0.72 mg/kg		0.626 mg/kg	0.0000626 %		✓	
22	acenaphthylene 205-917-1	208-96-8			0.38 mg/kg		0.331 mg/kg	0.0000331 %		✓	
23	acenaphthene 201-469-6	83-32-9			2.2 mg/kg		1.914 mg/kg	0.000191 %		✓	
24	fluorene 201-695-5	86-73-7			1.6 mg/kg		1.392 mg/kg	0.000139 %		✓	
25	phenanthrene 201-581-5	85-01-8			17 mg/kg		14.79 mg/kg	0.00148 %		✓	
26	anthracene 204-371-1	120-12-7			4.4 mg/kg		3.828 mg/kg	0.000383 %		✓	
27	fluoranthene 205-912-4	206-44-0			43 mg/kg		37.41 mg/kg	0.00374 %		✓	
28	pyrene 204-927-3	129-00-0			38 mg/kg		33.06 mg/kg	0.00331 %		✓	
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		22 mg/kg		19.14 mg/kg	0.00191 %		✓	
30	chrysene 601-048-00-0	205-923-4	218-01-9		20 mg/kg		17.4 mg/kg	0.00174 %		✓	
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		30 mg/kg		26.1 mg/kg	0.00261 %		✓	
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		11 mg/kg		9.57 mg/kg	0.000957 %		✓	
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		29 mg/kg		25.23 mg/kg	0.00252 %		✓	
34	indeno[123-cd]pyrene 205-893-2	193-39-5			18 mg/kg		15.66 mg/kg	0.00157 %		✓	
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		3 mg/kg		2.61 mg/kg	0.000261 %		✓	
36	benzo[ghi]perylene 205-883-8	191-24-2			15 mg/kg		13.05 mg/kg	0.00131 %		✓	
37	asbestos 650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5		20 mg/kg		17.4 mg/kg	0.00174 %		✓	
38	monohydric phenols P1186				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.102 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0339%)

Classification of sample: -512W-07/11/2022-

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-512W-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic trioxide }				9.3 mg/kg	1.32	10.56 mg/kg	0.00106 %	✓		
	033-003-00-0	215-481-4	1327-53-3								
2	cadmium { cadmium oxide }				0.48 mg/kg	1.142	0.472 mg/kg	0.0000472 %	✓		
	048-002-00-0	215-146-2	1306-19-0								
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20 mg/kg	1.462	25.139 mg/kg	0.00251 %	✓		
		215-160-9	1308-38-9								
4	copper { dicopper oxide; copper (I) oxide }				69 mg/kg	1.126	66.81 mg/kg	0.00668 %	✓		
	029-002-00-X	215-270-7	1317-39-1								
5	mercury { mercury dichloride }				0.17 mg/kg	1.353	0.198 mg/kg	0.0000198 %	✓		
	080-010-00-X	231-299-8	7487-94-7								
6	nickel { nickel(II) oxide (nickel monoxide) }				18 mg/kg	1.273	19.7 mg/kg	0.00197 %	✓		
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]								
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	170 mg/kg		146.2 mg/kg	0.0146 %	✓		
	082-001-00-6										
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.32 mg/kg	1.405	0.387 mg/kg	0.0000387 %	✓		
	034-002-00-8										
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				17 mg/kg	1.785	26.099 mg/kg	0.00261 %	✓		
	023-001-00-8	215-239-8	1314-62-1								
10	zinc { zinc oxide }				140 mg/kg	1.245	149.864 mg/kg	0.015 %	✓		
	030-013-00-7	215-222-5	1314-13-2								
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5 mg/kg	1.923	<0.962 mg/kg	<0.0000962 %			<LOD
	024-001-00-0	215-607-8	1333-82-0								
12	boron { diboron trioxide; boric oxide }				0.99 mg/kg	3.22	2.741 mg/kg	0.000274 %	✓		
	005-008-00-8	215-125-8	1303-86-2								
13	TPH (C6 to C40) petroleum group				1156.5 mg/kg		994.59 mg/kg	0.0995 %	✓		
			TPH								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-020-00-8	200-753-7	71-43-2								
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-021-00-3	203-625-9	108-88-3								
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-023-00-4	202-849-4	100-41-4								
18	xylene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]								
19	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				0.6 mg/kg	1.884	0.972 mg/kg	0.0000972 %	✓		
	006-007-00-5										
20	pH				8.4 pH		8.4 pH	8.4 pH			
			PH								
21	naphthalene				2.5 mg/kg		2.15 mg/kg	0.000215 %	✓		
	601-052-00-2	202-049-5	91-20-3								
22	acenaphthylene				0.78 mg/kg		0.671 mg/kg	0.0000671 %	✓		
		205-917-1	208-96-8								
23	acenaphthene				13 mg/kg		11.18 mg/kg	0.00112 %	✓		
		201-469-6	83-32-9								
24	fluorene				7.8 mg/kg		6.708 mg/kg	0.000671 %	✓		
		201-695-5	86-73-7								
25	phenanthrene				81 mg/kg		69.66 mg/kg	0.00697 %	✓		
		201-581-5	85-01-8								
26	anthracene				18 mg/kg		15.48 mg/kg	0.00155 %	✓		
		204-371-1	120-12-7								
27	fluoranthene				120 mg/kg		103.2 mg/kg	0.0103 %	✓		
		205-912-4	206-44-0								
28	pyrene				100 mg/kg		86 mg/kg	0.0086 %	✓		
		204-927-3	129-00-0								
29	benzo[a]anthracene				50 mg/kg		43 mg/kg	0.0043 %	✓		
	601-033-00-9	200-280-6	56-55-3								
30	chrysene				51 mg/kg		43.86 mg/kg	0.00439 %	✓		
	601-048-00-0	205-923-4	218-01-9								
31	benzo[b]fluoranthene				62 mg/kg		53.32 mg/kg	0.00533 %	✓		
	601-034-00-4	205-911-9	205-99-2								
32	benzo[k]fluoranthene				22 mg/kg		18.92 mg/kg	0.00189 %	✓		
	601-036-00-5	205-916-6	207-08-9								
33	benzo[a]pyrene; benzo[def]chrysene				55 mg/kg		47.3 mg/kg	0.00473 %	✓		
	601-032-00-3	200-028-5	50-32-8								
34	indeno[123-cd]pyrene				34 mg/kg		29.24 mg/kg	0.00292 %	✓		
		205-893-2	193-39-5								
35	dibenz[a,h]anthracene				6.5 mg/kg		5.59 mg/kg	0.000559 %	✓		
	601-041-00-2	200-181-8	53-70-3								
36	benzo[ghi]perylene				30 mg/kg		25.8 mg/kg	0.00258 %	✓		
		205-883-8	191-24-2								
37	monohydric phenols				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
			P1186								
Total:									0.201 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0995%)

Classification of sample: -512B-07/11/2022-

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
-512B-07/11/2022-	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
20%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 20% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic trioxide }				4.9	mg/kg	1.32	5.176	mg/kg	0.000518 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
2	cadmium { cadmium oxide }				0.17	mg/kg	1.142	0.155	mg/kg	0.0000155 %	✓	
	048-002-00-0	215-146-2	1306-19-0									
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				6.9	mg/kg	1.462	8.068	mg/kg	0.000807 %	✓	
		215-160-9	1308-38-9									
4	copper { dicopper oxide; copper (I) oxide }				10	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
5	mercury { mercury dichloride }				<0.05	mg/kg	1.353	<0.0677	mg/kg	<0.00000677 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
6	nickel { nickel(II) oxide (nickel monoxide) }				7	mg/kg	1.273	7.127	mg/kg	0.000713 %	✓	
	028-003-00-2	215-215-7 [1] 234-323-5 [2] - [3]	1313-99-1 [1] 11099-02-8 [2] 34492-97-2 [3]									
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	13	mg/kg		10.4	mg/kg	0.00104 %	✓	
	082-001-00-6											
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				0.26	mg/kg	1.405	0.292	mg/kg	0.0000292 %	✓	
	034-002-00-8											
9	vanadium { divanadium pentaoxide; vanadium pentoxide }				7.3	mg/kg	1.785	10.425	mg/kg	0.00104 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
10	zinc { zinc oxide }				27	mg/kg	1.245	26.886	mg/kg	0.00269 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
11	chromium in chromium(VI) compounds { chromium(VI) oxide }				<0.5	mg/kg	1.923	<0.962	mg/kg	<0.0000962 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
12	boron { diboron trioxide; boric oxide }				0.75	mg/kg	3.22	1.932	mg/kg	0.000193 %	✓	
	005-008-00-8	215-125-8	1303-86-2									
13	TPH (C6 to C40) petroleum group				153.3	mg/kg		122.64	mg/kg	0.0123 %	✓	
			TPH									
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.001	mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	603-181-00-X	216-653-1	1634-04-4									

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	benzene 601-020-00-8	200-753-7	71-43-2		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
16	toluene 601-021-00-3	203-625-9	108-88-3		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
17	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
18	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
19	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %			<LOD
20	pH PH				8.3 pH		8.3 pH	8.3 pH			
21	naphthalene 601-052-00-2	202-049-5	91-20-3		0.22 mg/kg		0.176 mg/kg	0.0000176 %		✓	
22	acenaphthylene 205-917-1	208-96-8			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
23	acenaphthene 201-469-6	83-32-9			0.93 mg/kg		0.744 mg/kg	0.0000744 %		✓	
24	fluorene 201-695-5	86-73-7			0.62 mg/kg		0.496 mg/kg	0.0000496 %		✓	
25	phenanthrene 201-581-5	85-01-8			5.7 mg/kg		4.56 mg/kg	0.000456 %		✓	
26	anthracene 204-371-1	120-12-7			1.3 mg/kg		1.04 mg/kg	0.000104 %		✓	
27	fluoranthene 205-912-4	206-44-0			9.4 mg/kg		7.52 mg/kg	0.000752 %		✓	
28	pyrene 204-927-3	129-00-0			8.2 mg/kg		6.56 mg/kg	0.000656 %		✓	
29	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		3.8 mg/kg		3.04 mg/kg	0.000304 %		✓	
30	chrysene 601-048-00-0	205-923-4	218-01-9		4.1 mg/kg		3.28 mg/kg	0.000328 %		✓	
31	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		4.9 mg/kg		3.92 mg/kg	0.000392 %		✓	
32	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		1.7 mg/kg		1.36 mg/kg	0.000136 %		✓	
33	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		4.4 mg/kg		3.52 mg/kg	0.000352 %		✓	
34	indeno[123-cd]pyrene 205-893-2	193-39-5			2.8 mg/kg		2.24 mg/kg	0.000224 %		✓	
35	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.52 mg/kg		0.416 mg/kg	0.0000416 %		✓	
36	benzo[ghi]perylene 205-883-8	191-24-2			2.5 mg/kg		2 mg/kg	0.0002 %		✓	
37	monohydric phenols P1186				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
Total:									0.0245 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because Concentrations at less than 1.0% are "unlikely to be flammable". Flammability of soils is unlikely to result in a hazardous classification in soils (AGS Waste Classification – A Practitioner's Guide).

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0123%)

Appendix A: Classifier defined and non GB MCL determinands

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332, Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Resp. Sens. 1; H334, Skin Sens. 1; H317, Repr. 1B; H360FD, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

lead compounds with the exception of those specified elsewhere in this Annex

GB MCL index number: 082-001-00-6

Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium

www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

divanadium pentaoxide; vanadium pentoxide (EC Number: 215-239-8, CAS Number: 1314-62-1)

GB MCL index number: 023-001-00-8

Description/Comments:

Additional Hazard Statement(s): Carc. 1B; H350, Acute Tox. 3; H301, Acute Tox. 2; H330

Reason for additional Hazards Statement(s):

20 Sep 2022 - Carc. 1B; H350 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be Carc. 1B; H350. The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 3; H301 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 3; H301". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

28 Sep 2022 - Acute Tox. 2; H330 hazard statement sourced from: ATP 18 (Regulation (EU) 2022/692) considers vanadium pentoxide to be "Acute tox 2; H330". The GB MCL Agency has reached the same opinion [but is yet to formerly make this change to the MCL List].

Substance has therefore been self-classified.

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

• **acenaphthene** (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411

• **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Carc. 2; H351, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Skin Irrit. 2; H315

• **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

• **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

• **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)

Data source: CLP combined data

Data source date: 26 Mar 2019

Hazard Statements: Muta. 2; H341, Acute Tox. 3; H331, Acute Tox. 3; H311, Acute Tox. 3; H301, STOT RE 2; H373, Skin Corr. 1B; H314, Skin Corr. 1B; H314 >= 3 %, Skin Irrit. 2; H315 1 £ conc. < 3 %, Eye Irrit. 2; H319 1 £ conc. < 3 %, Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides.

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel(II) oxide (nickel monoxide)}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case. Pigment cadmium sulphoselenide not likely to be present in this soil. No evidence for the other CLP entries: sodium selenite, nickel II selenite and nickel selenide, to be present in this soil.

vanadium {divanadium pentaoxide; vanadium pentoxide}

Most conservative species.

zinc {zinc oxide}

Worst case compound based on absence of CrVI and assumed metal oxides from a combustion, ash based source.

chromium in chromium(VI) compounds {chromium(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight. Industrial sources include: production stainless steel, electroplating, wood preservation, anti-corrosion agents or coatings, pigments

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.51.5529.10230 (20 Feb 2023)
HazWasteOnline Database: 2023.51.5529.10230 (20 Feb 2023)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

Appendix 6 : Geotechnical Test Certificates

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

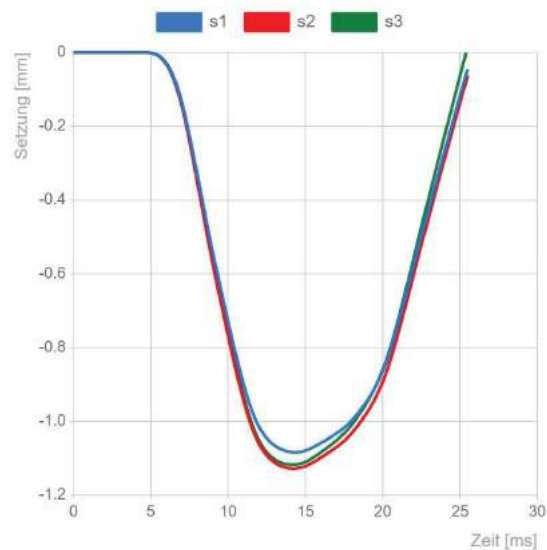
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
001
Test date
01/27/2023 11:25 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD001

Comments
CBR = 10.1%

Impact	s [mm]	v [mm/s]
1	1,084	214,29
2	1,128	225,98
3	1,117	223,51
Ø	1,110	221,26

s/v 5,02 ms
Ev2 -

Evd 20,28 MN/m²

Greater Manchester
02/03/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
Radcliffe
M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

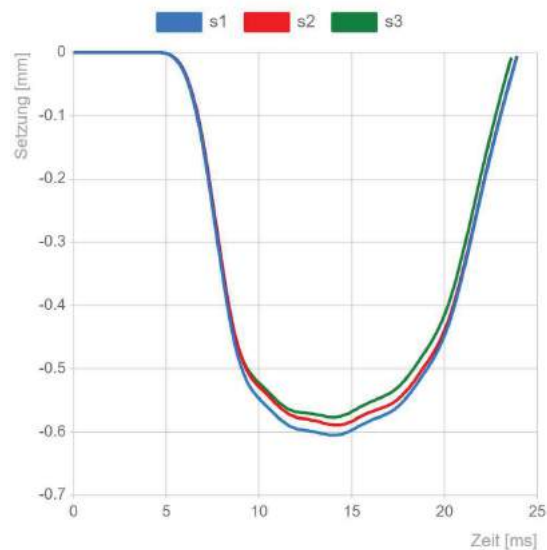
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
002
Test date
01/27/2023 11:33 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD002

Comments
CBR = 19.1%

Impact	s [mm]	v [mm/s]
1	0,605	199,73
2	0,589	195,01
3	0,577	192,98
Ø	0,590	195,91

s/v 3,01 ms
Ev2 -

Evd **38,11 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
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United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

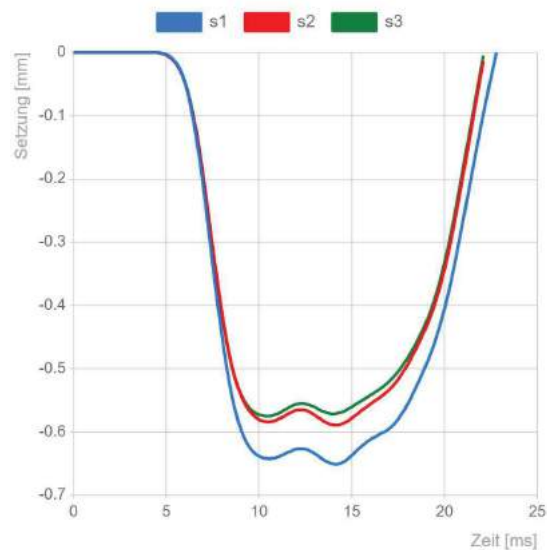
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
0161 339 3340

Record no.
003
Test date
01/27/2023 11:35 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD003

Comments
CBR = 18.6%

Impact	s [mm]	v [mm/s]
1	0,651	238,82
2	0,589	218,51
3	0,575	222,95
Ø	0,605	226,76

s/v 2,67 ms
Ev2 -

Evd 37,19 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

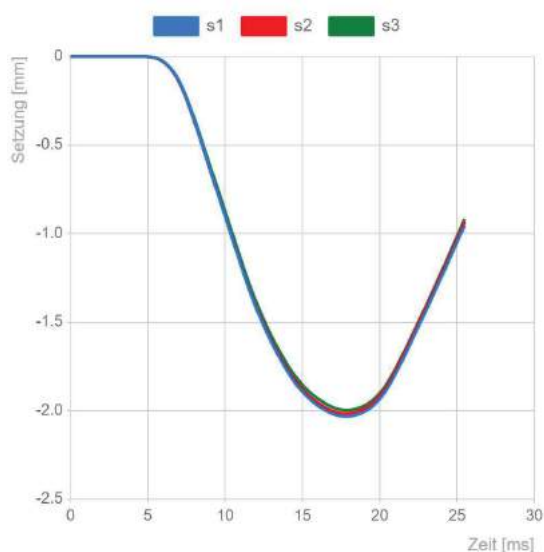
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
004
Test date
01/27/2023 11:37 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD004

Comments
CBR = 5.6%

Impact	s [mm]	v [mm/s]
1	2,033	275,27
2	2,016	269,94
3	1,997	267,82
Ø	2,015	271,01

s/v 7,44 ms
Ev2 -

Evd 11,16 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

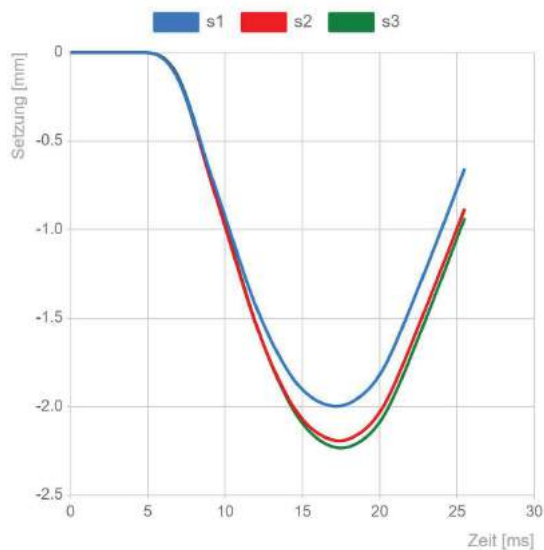
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
005
Test date
01/27/2023 11:40 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD005

Comments
CBR = 5.3%

Impact	s [mm]	v [mm/s]
1	1,997	274,34
2	2,192	298,73
3	2,233	299,30
Ø	2,141	290,79

s/v 7,36 ms
Ev2 -

Evd **10,51 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

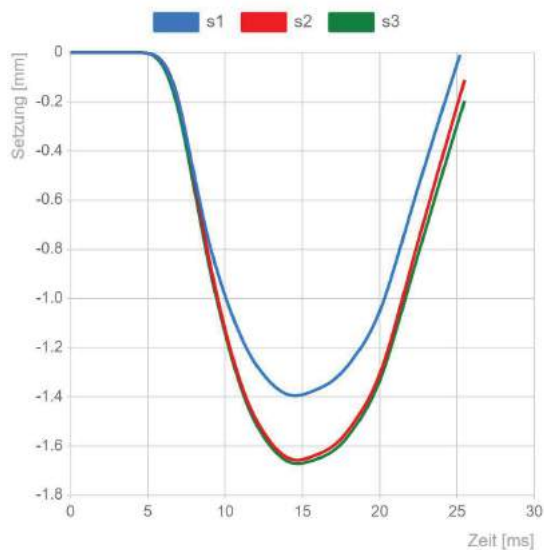
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
006
Test date
01/27/2023 11:42 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD006

Comments
CBR = 7.1%

Impact	s [mm]	v [mm/s]
1	1,396	308,10
2	1,657	347,39
3	1,671	336,43
Ø	1,575	330,64

s/v 4,76 ms
Ev2 –

Evd **14,29 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

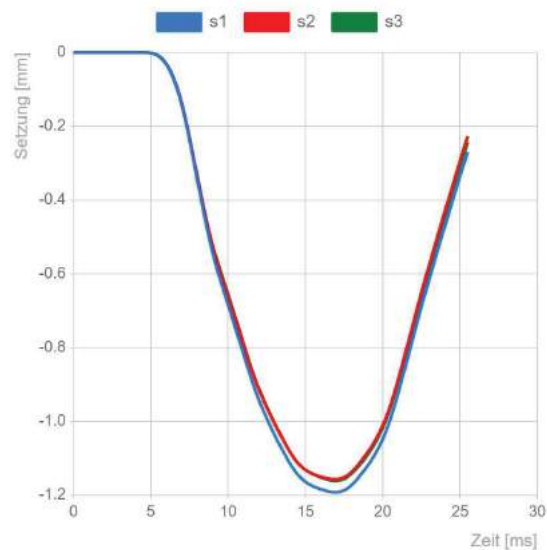
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
007
Test date
01/27/2023 11:45 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD008

Comments
CBR = 9.6%

Impact	s [mm]	v [mm/s]
1	1,192	218,45
2	1,157	211,88
3	1,161	207,24
Ø	1,170	212,52

s/v 5,51 ms
Ev2 -

Evd **19,23 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

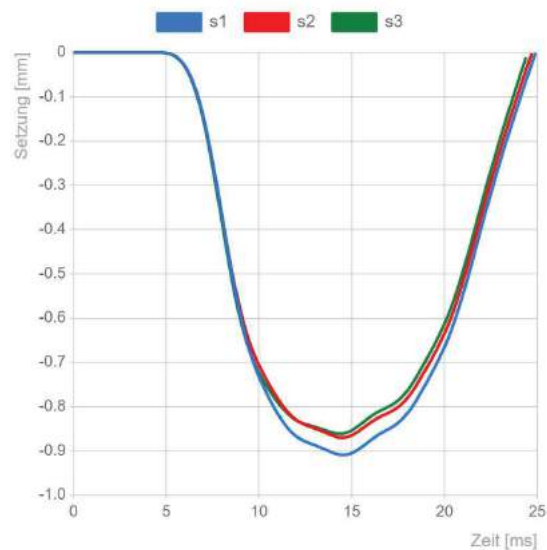
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
008
Test date
01/27/2023 11:49 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD008

Comments
CBR = 12.8%

Impact	s [mm]	v [mm/s]
1	0,909	246,69
2	0,870	241,14
3	0,861	249,73
Ø	0,880	245,85

s/v 3,58 ms
Ev2 -

Evd 25,57 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

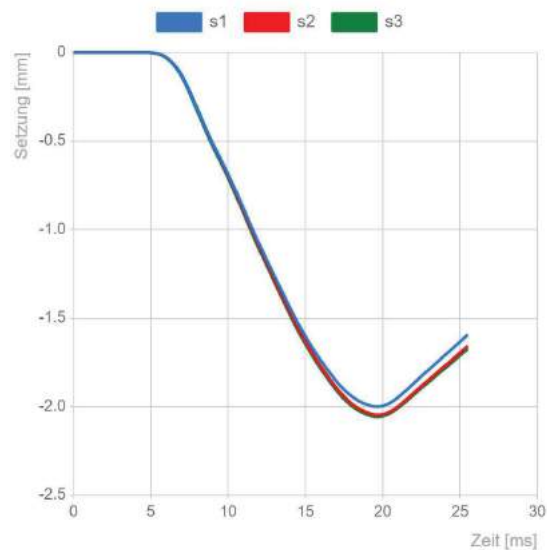
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
009
Test date
01/27/2023 11:55 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD009

Comments
CBR = 5.5%

Impact	s [mm]	v [mm/s]
1	1,999	203,32
2	2,047	206,22
3	2,057	208,10
Ø	2,034	205,88

s/v 9,88 ms
Ev2 -

Evd **11,06 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

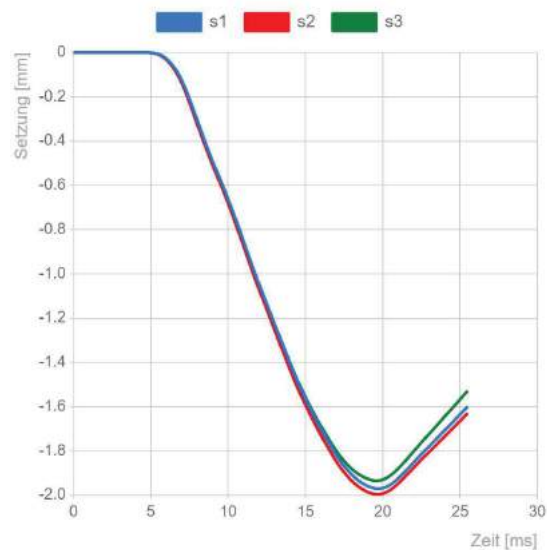
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
010
Test date
01/27/2023 11:56 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD010

Comments
CBR = 5.7%

Impact	s [mm]	v [mm/s]
1	1,970	197,48
2	1,996	199,35
3	1,934	196,79
Ø	1,967	197,87

s/v 9,94 ms
Ev2 -

Evd **11,44 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

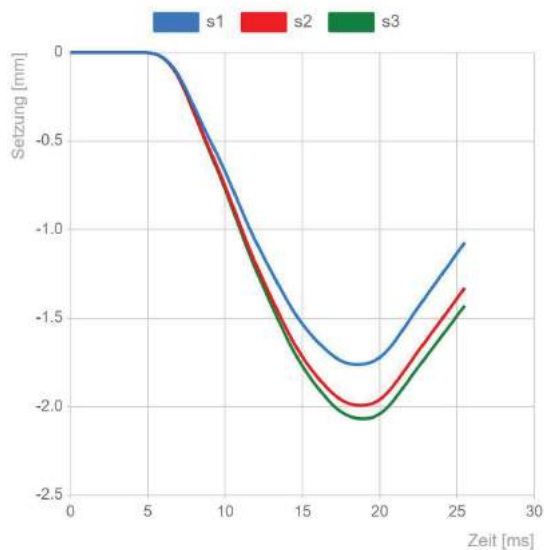
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
011
Test date
01/27/2023 11:59 AM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD011

Comments
CBR = 5.8%

Impact	s [mm]	v [mm/s]
1	1,762	205,78
2	1,993	229,05
3	2,068	236,10
Ø	1,941	223,64

s/v 8,68 ms
Ev2 -

Evd **11,59 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
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United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

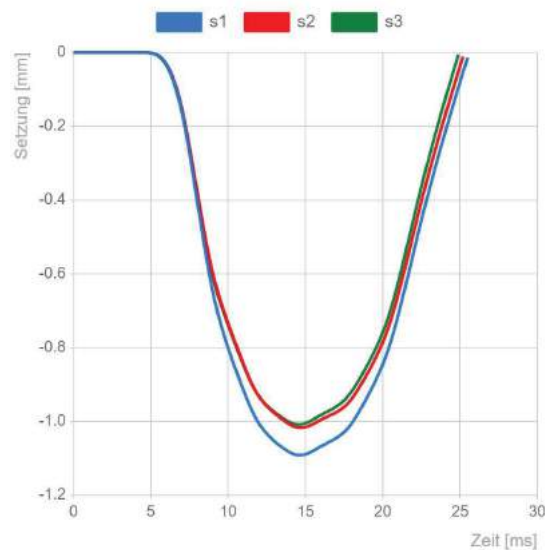
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
012
Test date
01/27/2023 12:01 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD012

Comments
CBR = 10.8%

Impact	s [mm]	v [mm/s]
1	1,092	267,37
2	1,017	245,71
3	1,008	245,45
Ø	1,039	252,84

s/v 4,11 ms
Ev2 -

Evd 21,66 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

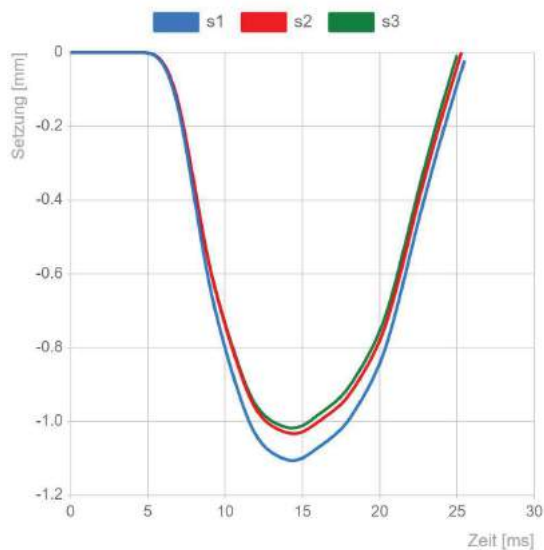
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
013
Test date
01/27/2023 12:05 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD013

Comments
CBR = 10.7%

Impact	s [mm]	v [mm/s]
1	1,106	255,69
2	1,033	236,72
3	1,018	233,64
Ø	1,052	242,02

s/v 4,35 ms
Ev2 -

Evd 21,38 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

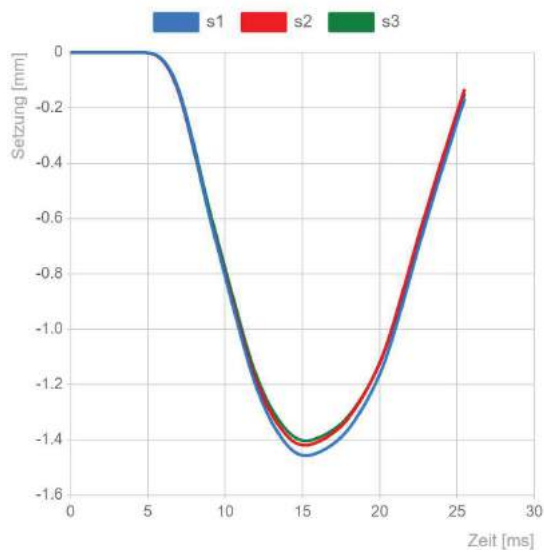
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
014
Test date
01/27/2023 12:08 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD014

Comments
CBR = 7.9%

Impact	s [mm]	v [mm/s]
1	1,457	244,02
2	1,419	237,41
3	1,403	233,79
Ø	1,426	238,41

s/v 5,98 ms
Ev2 -

Evd **15,77 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

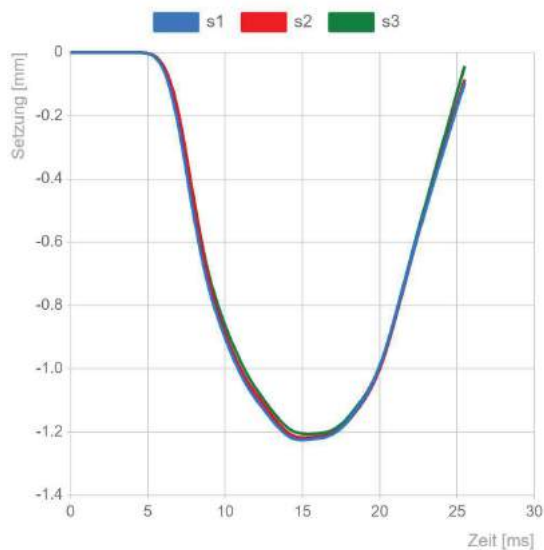
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
015
Test date
01/27/2023 12:14 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD015

Comments
CBR = 9.2%

Impact	s [mm]	v [mm/s]
1	1,225	290,99
2	1,219	295,00
3	1,207	284,72
Ø	1,217	290,24

s/v 4,19 ms
Ev2 -

Evd 18,49 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

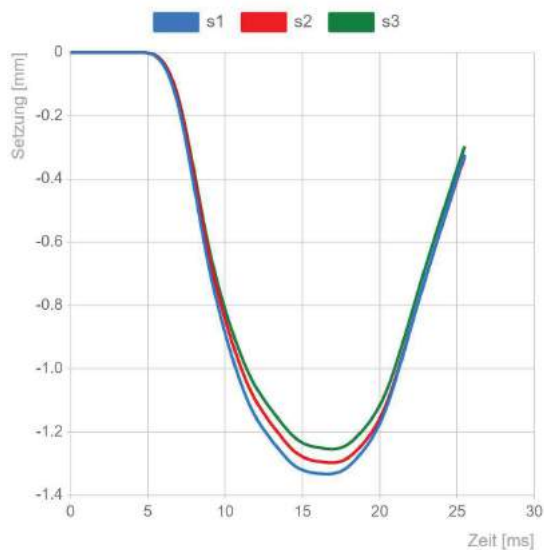
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
016
Test date
01/27/2023 12:16 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD016

Comments
CBR = 8.7%

Impact	s [mm]	v [mm/s]
1	1,333	275,98
2	1,297	268,11
3	1,254	260,21
Ø	1,295	268,10

s/v 4,83 ms
Ev2 -

Evd **17,38 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

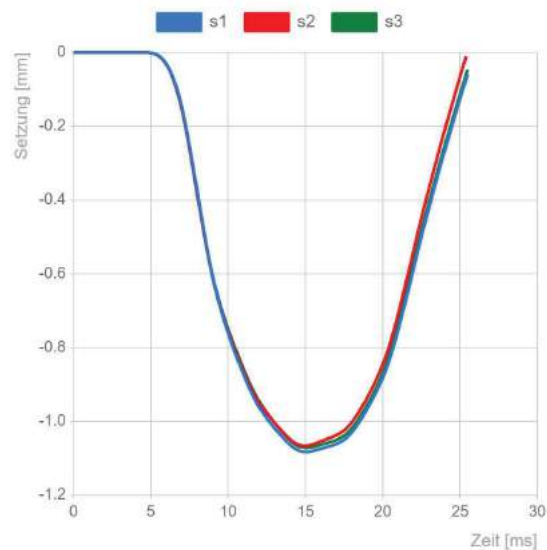
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
017
Test date
01/27/2023 12:18 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD017

Comments
CBR = 10.5%

Impact	s [mm]	v [mm/s]
1	1,083	252,20
2	1,066	249,97
3	1,072	249,10
Ø	1,074	250,42

s/v 4,29 ms
Ev2 -

Evd 20,96 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
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M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkggroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

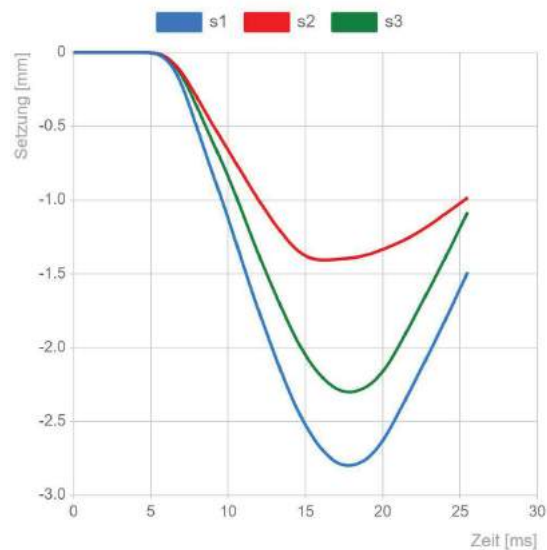
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
018
Test date
01/27/2023 12:21 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD018

Comments
CBR = 5.2%

Impact	s [mm]	v [mm/s]
1	2,798	323,43
2	1,405	181,89
3	2,301	273,60
Ø	2,168	259,64

s/v 8,35 ms
Ev2 -

Evd **10,38 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

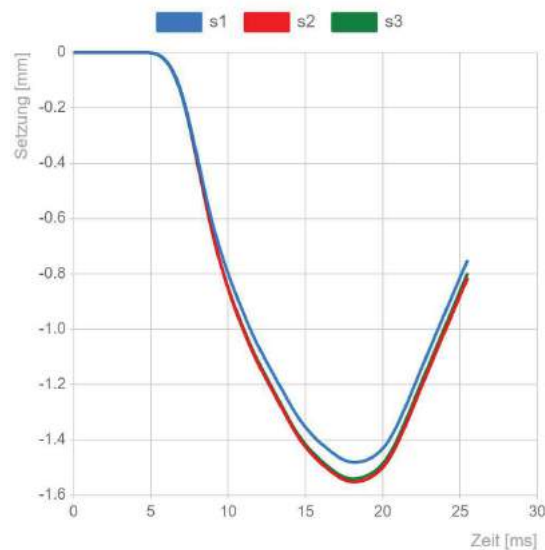
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
019
Test date
01/27/2023 12:29 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD019

Comments
CBR = 7.4%

Impact	s [mm]	v [mm/s]
1	1,481	254,54
2	1,552	275,27
3	1,541	271,32
Ø	1,525	267,04

s/v 5,71 ms
Ev2 -

Evd 14,76 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
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M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

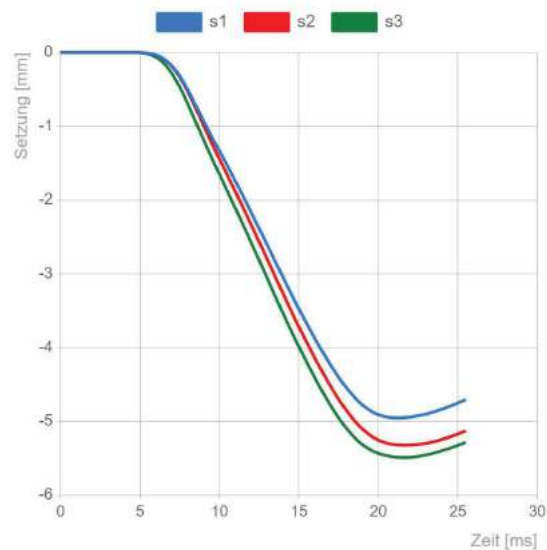
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
020
Test date
01/27/2023 12:33 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD020

Comments
CBR = 8.4%

Impact	s [mm]	v [mm/s]
1	4,952	441,63
2	5,322	474,52
3	5,488	492,00
Ø	5,254	469,38

s/v 11,19 ms
Ev2 -

Evd 4,28 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
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Number LKR221029
Every Street, Bury, BL9 5BE

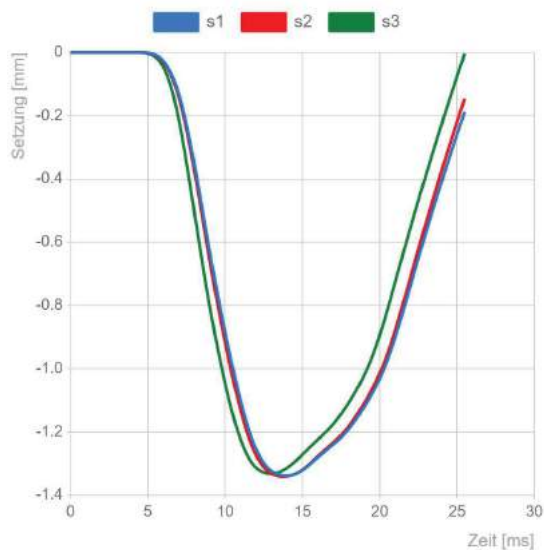
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
021
Test date
01/27/2023 12:34 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD021

Comments
CBR = 8.4%

Impact	s [mm]	v [mm/s]
1	1,339	280,03
2	1,341	287,50
3	1,332	312,06
Ø	1,337	293,20

s/v 4,56 ms
Ev2 -

Evd **16,82 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Number LKR221029
Every Street, Bury, BL9 5BE

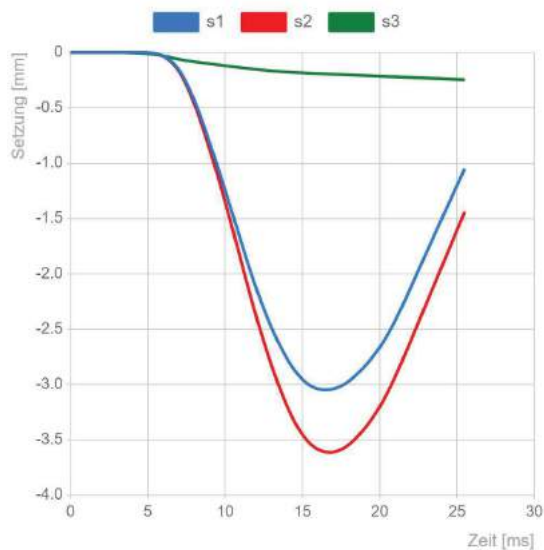
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
022
Test date
01/27/2023 02:22 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
Made Ground
Plate base
300mm

s/t-diagram



Measuring point
LWD022

Comments
CBR = 4.9% Error on drop 3

Impact	s [mm]	v [mm/s]
1	3,048	452,60
2	3,613	525,10
3	0,245	27,56
Ø	2,302	335,09

s/v 6,87 ms
Ev2 -

Evd 9,77 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

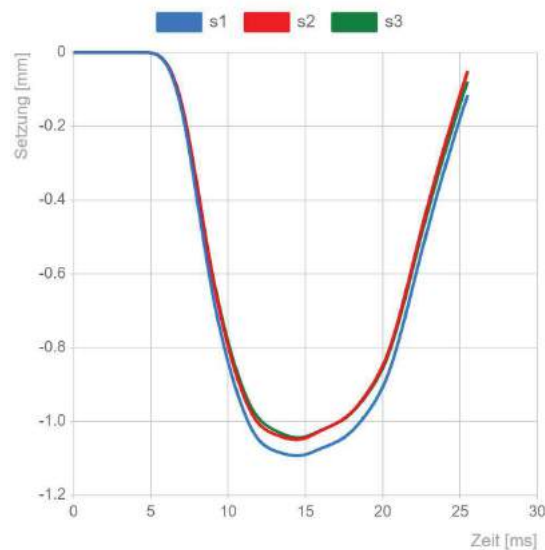
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
023
Test date
01/27/2023 03:08 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD023

Comments
CBR = 10.6%

Impact	s [mm]	v [mm/s]
1	1,093	268,53
2	1,049	253,82
3	1,044	247,54
Ø	1,062	256,63

s/v 4,14 ms
Ev2 -

Evd 21,19 MN/m²

Greater Manchester
02/21/2023

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Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

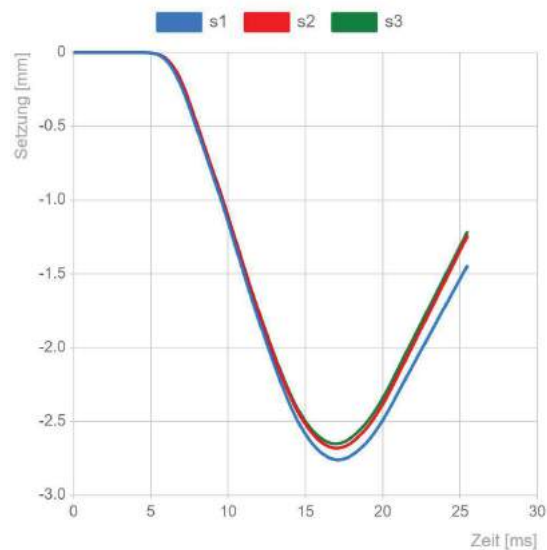
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
024
Test date
01/27/2023 03:11 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD024

Comments
CBR = 4.2%

Impact	s [mm]	v [mm/s]
1	2,760	344,54
2	2,681	337,88
3	2,651	334,80
Ø	2,697	339,07

s/v 7,96 ms
Ev2 -

Evd **8,34 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

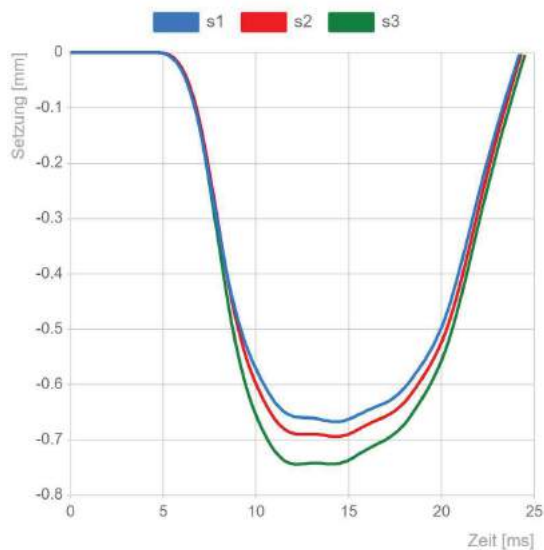
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
025
Test date
01/27/2023 03:13 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD025

Comments
CBR = 16%

Impact	s [mm]	v [mm/s]
1	0,667	186,02
2	0,694	197,97
3	0,744	218,64
Ø	0,702	200,88

s/v 3,49 ms
Ev2 -

Evd 32,07 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Number LKR221029
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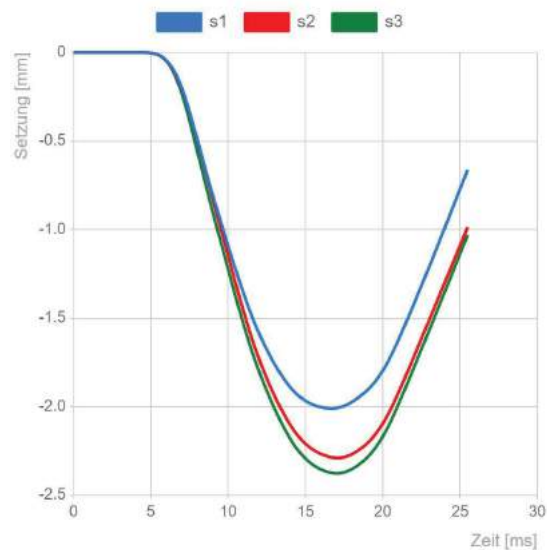
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
026
Test date
01/27/2023 03:16 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



Measuring point
LWD026

Comments
CBR = 5.1%

Impact	s [mm]	v [mm/s]
1	2,010	320,73
2	2,289	331,55
3	2,377	349,88
Ø	2,225	334,05

s/v 6,66 ms
Ev2 -

Evd 10,11 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
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Number LKR221029
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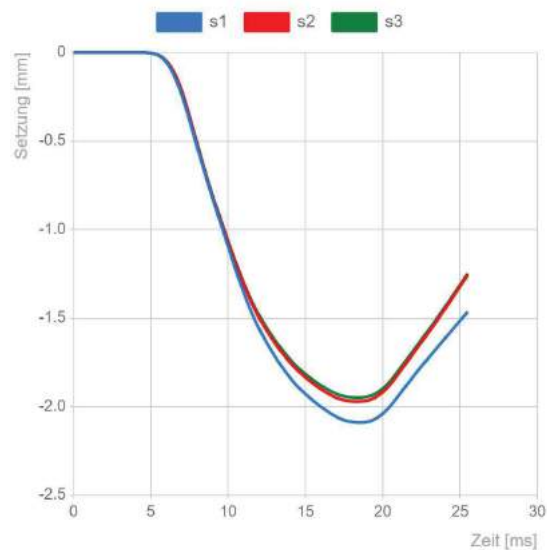
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
027
Test date
01/27/2023 03:24 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD027

Comments
CBR = 5.6%

Impact	s [mm]	v [mm/s]
1	2,089	305,41
2	1,970	316,31
3	1,949	312,07
Ø	2,003	311,26

s/v 6,43 ms
Ev2 -

Evd **11,24 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Angela G
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Number LKR221029
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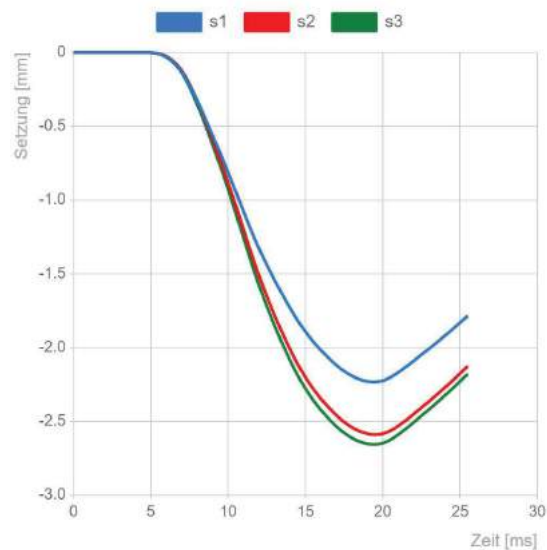
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
028
Test date
01/27/2023 03:26 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD028

Comments
CBR = 4.5%

Impact	s [mm]	v [mm/s]
1	2,233	266,52
2	2,590	323,69
3	2,655	333,69
Ø	2,493	307,97

s/v 8,09 ms
Ev2 -

Evd 9,03 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

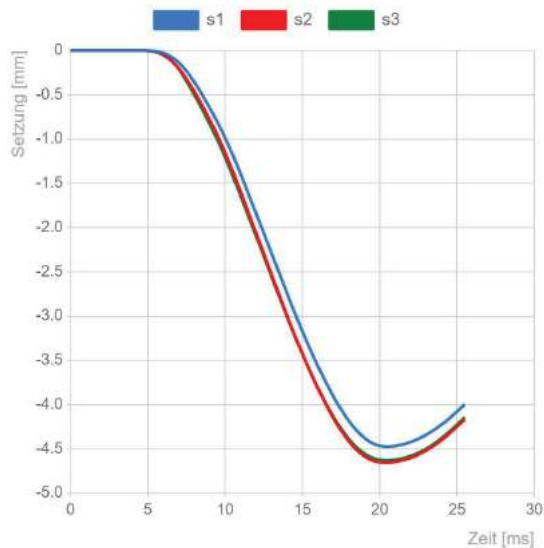
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
029
Test date
01/27/2023 03:29 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD029

Comments
CBR = 2.5%

Impact	s [mm]	v [mm/s]
1	4,474	451,66
2	4,654	467,87
3	4,627	457,93
Ø	4,585	459,15

s/v 9,99 ms
Ev2 -

Evd **4,91 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

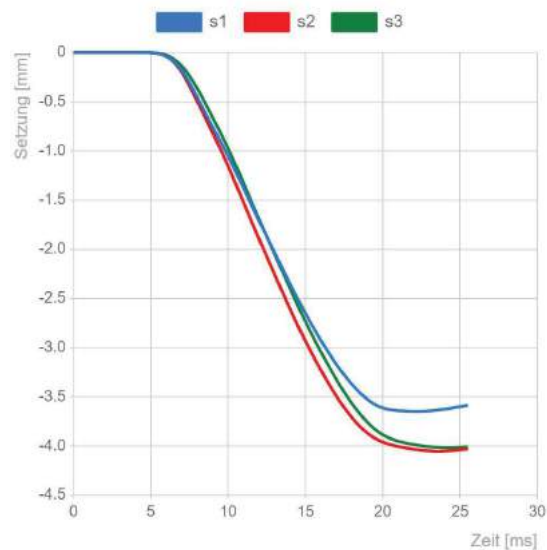
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
030
Test date
01/27/2023 03:32 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD030

Comments
CBR = 2.9%

Impact	s [mm]	v [mm/s]
1	3,648	333,34
2	4,053	375,48
3	4,018	367,08
Ø	3,906	358,63

s/v 10,89 ms
Ev2 -

Evd 5,76 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Angela G
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Number LKR221029
Every Street, Bury, BL9 5BE

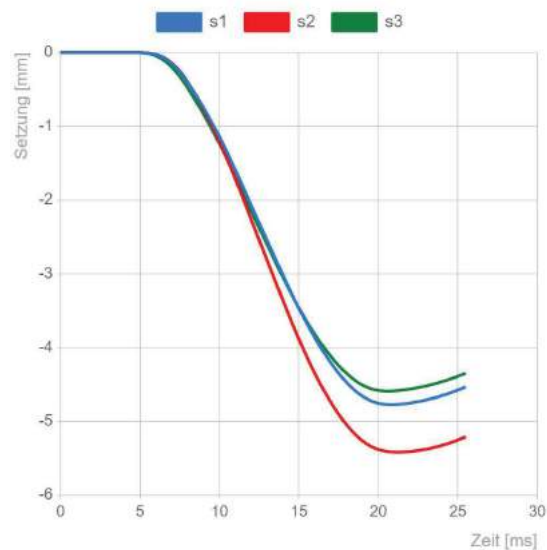
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
031
Test date
01/27/2023 03:33 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD031

Comments
CBR = 2.3%

Impact	s [mm]	v [mm/s]
1	4,773	482,40
2	5,417	556,12
3	4,589	465,69
Ø	4,926	501,40

s/v 9,83 ms
Ev2 -

Evd **4,57 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Number LKR221029
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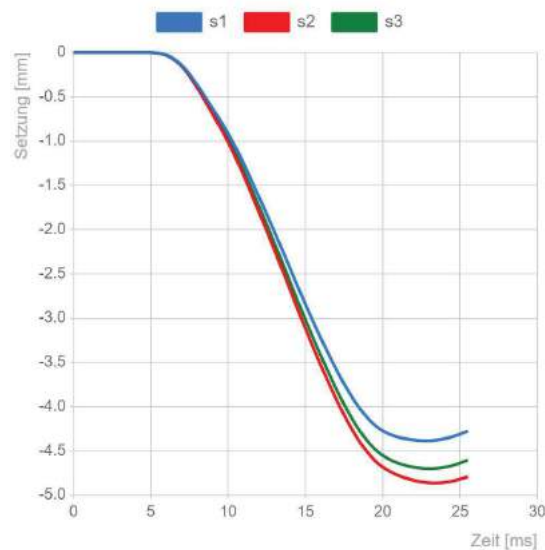
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
032
Test date
01/27/2023 03:35 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD032

Comments
CBR = 2.4%

Impact	s [mm]	v [mm/s]
1	4,385	414,43
2	4,861	448,05
3	4,700	436,82
Ø	4,649	433,10

s/v 10,73 ms
Ev2 -

Evd **4,84 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Number LKR221029
Every Street, Bury, BL9 5BE

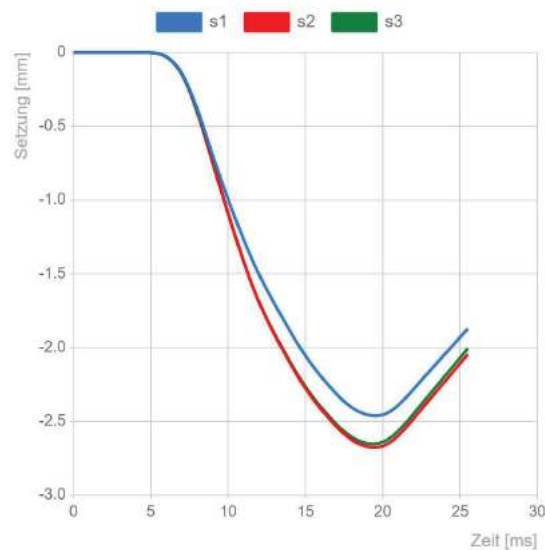
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
033
Test date
01/27/2023 03:37 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD033

Comments
CBR = 4.3%

Impact	s [mm]	v [mm/s]
1	2,462	317,77
2	2,676	353,66
3	2,652	351,10
Ø	2,597	340,84

s/v 7,62 ms
Ev2 -

Evd 8,66 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Number LKR221029
Every Street, Bury, BL9 5BE

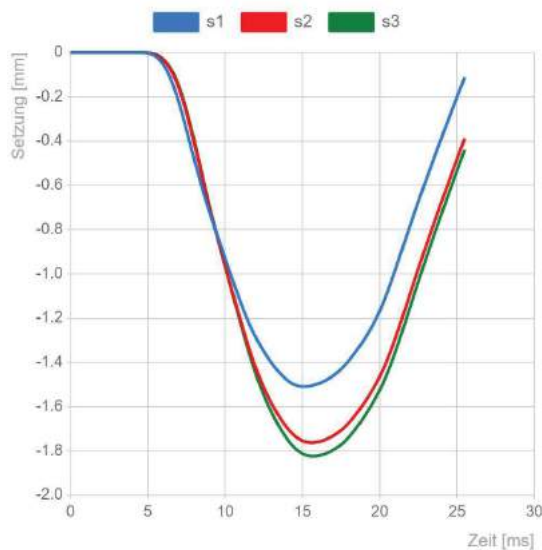
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
034
Test date
01/27/2023 03:39 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD034

Comments
CBR = 6.6%

Impact	s [mm]	v [mm/s]
1	1,509	265,35
2	1,762	296,01
3	1,824	301,52
Ø	1,698	287,63

s/v 5,90 ms
Ev2 -

Evd **13,25 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
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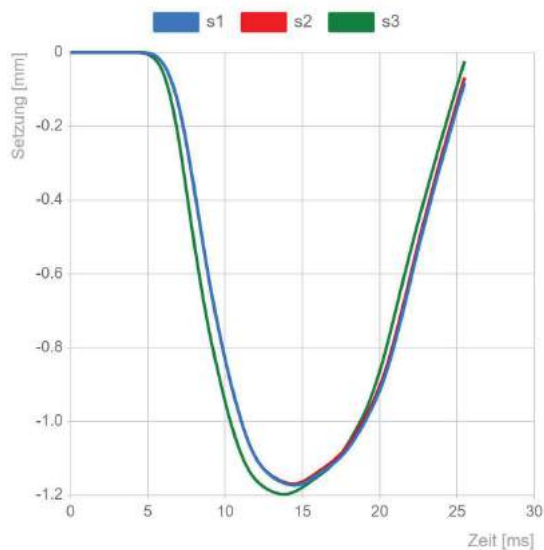
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
035
Test date
01/27/2023 03:41 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD035

Comments
CBR = 9.5%

Impact	s [mm]	v [mm/s]
1	1,173	260,83
2	1,169	259,52
3	1,198	285,38
Ø	1,180	268,58

s/v 4,39 ms
Ev2 -

Evd 19,07 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

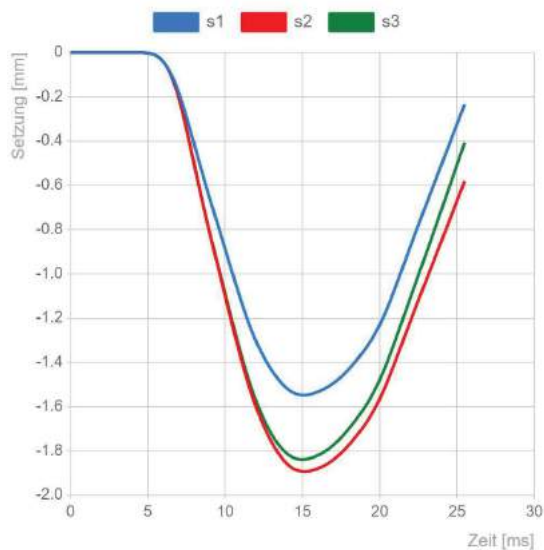
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
036
Test date
01/27/2023 03:43 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD036

Comments
CBR = 6.4%

Impact	s [mm]	v [mm/s]
1	1,548	249,30
2	1,893	321,18
3	1,839	323,85
Ø	1,760	298,11

s/v 5,90 ms
Ev2 -

Evd **12,78 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

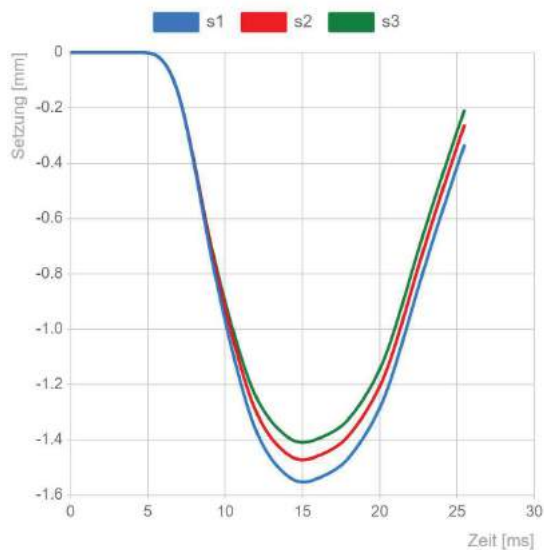
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
037
Test date
01/27/2023 03:45 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD037

Comments
CBR = 7.6%

Impact	s [mm]	v [mm/s]
1	1,552	302,79
2	1,472	288,49
3	1,409	280,19
Ø	1,478	290,49

s/v 5,09 ms
Ev2 -

Evd **15,23 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
Radcliffe
M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

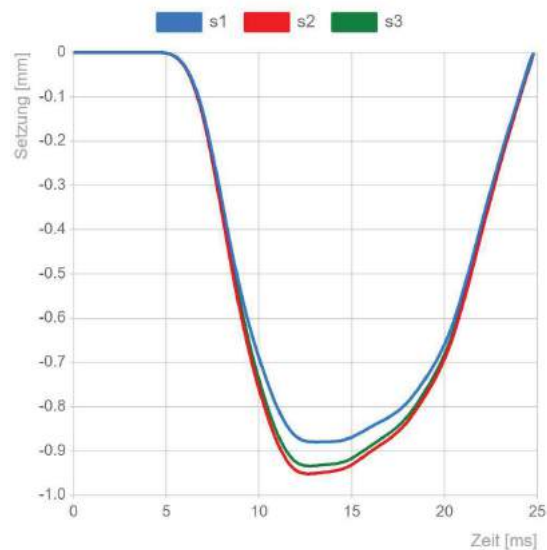
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
038
Test date
01/27/2023 03:47 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD038

Comments
CBR = 12.2%

Impact	s [mm]	v [mm/s]
1	0,880	213,63
2	0,952	235,26
3	0,934	229,95
Ø	0,922	226,28

s/v 4,07 ms
Ev2 -

Evd 24,40 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

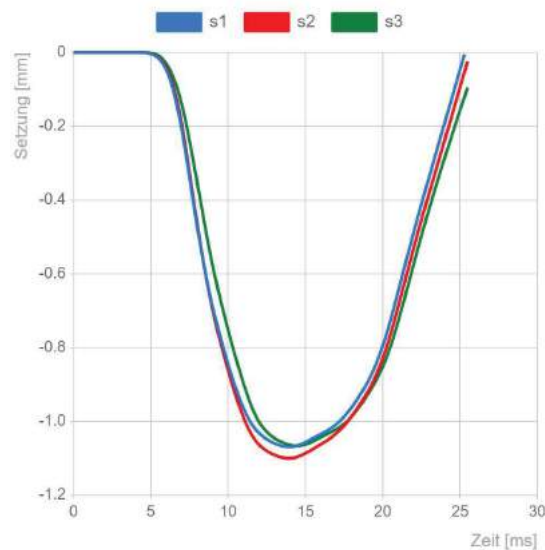
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
039
Test date
01/27/2023 03:48 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD039

Comments
CBR - 10.4%

Impact	s [mm]	v [mm/s]
1	1,069	267,68
2	1,100	278,32
3	1,066	235,29
Ø	1,078	260,43

s/v 4,14 ms
Ev2 -

Evd 20,87 MN/m²

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

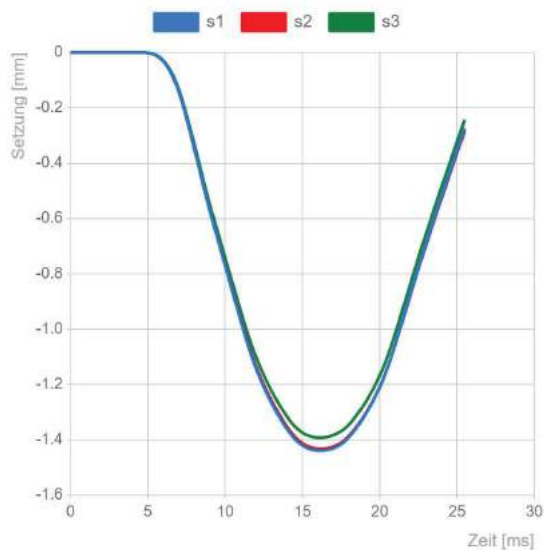
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
040
Test date
01/27/2023 03:50 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD040

Comments
CBR = 7.9%

Impact	s [mm]	v [mm/s]
1	1,439	228,45
2	1,432	227,50
3	1,392	221,16
Ø	1,421	225,70

s/v 6,30 ms
Ev2 -

Evd **15,83 MN/m²**

Greater Manchester
02/21/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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United Kingdom

Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

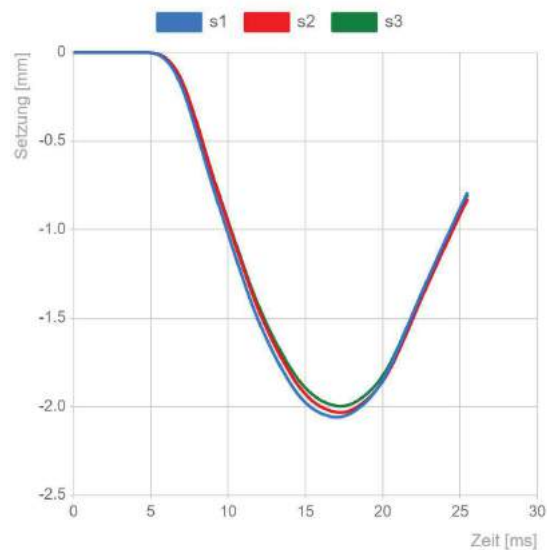
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
041
Test date
01/27/2023 03:53 PM
Device no.
LFG 13401
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



Measuring point
LWD041

Comments
CBR 5.5%

Impact	s [mm]	v [mm/s]
1	2,059	297,40
2	2,033	292,58
3	1,997	288,52
Ø	2,030	292,83

s/v 6,93 ms
Ev2 -

Evd 11,09 MN/m²

Greater Manchester
02/21/2023

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Place, Date

Name

Signature / Stamp



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Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

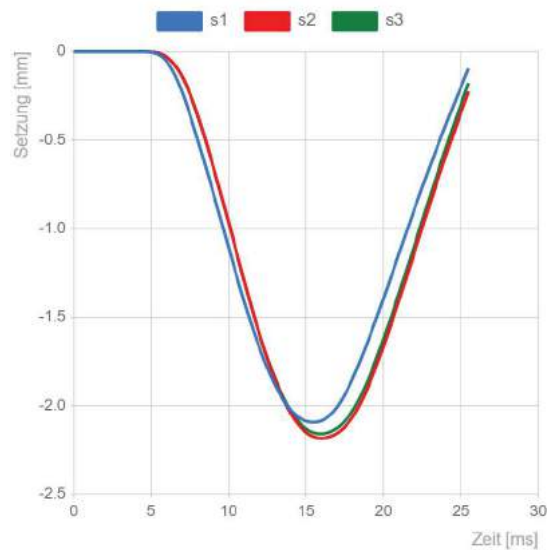
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
003
Test date
02/27/2023 03:51 PM
Device no.
LFG 13631
Tester
D. Marland

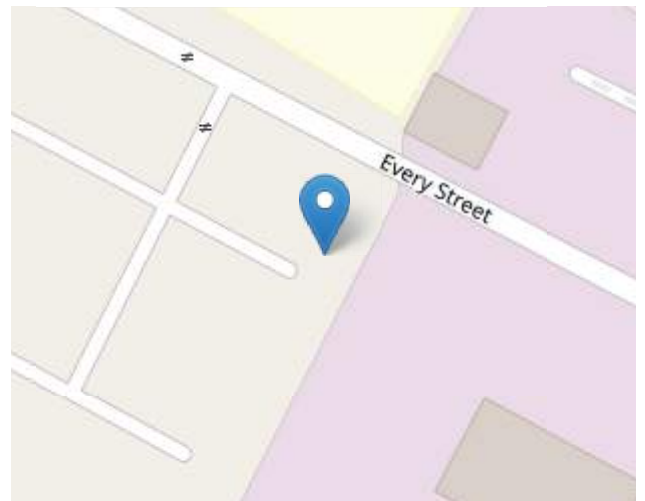
Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



GPS coordinates
N 53° 36' 6.11" W 3° 42' 16.67"



Comments
CBR = 5.3%

Impact	s [mm]	v [mm/s]
1	2,093	310,08
2	2,183	327,69
3	2,158	325,64
Ø	2,145	321,14

s/v 6,68 ms
Ev2 -

Evd 10,49 MN/m²

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
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M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkggroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

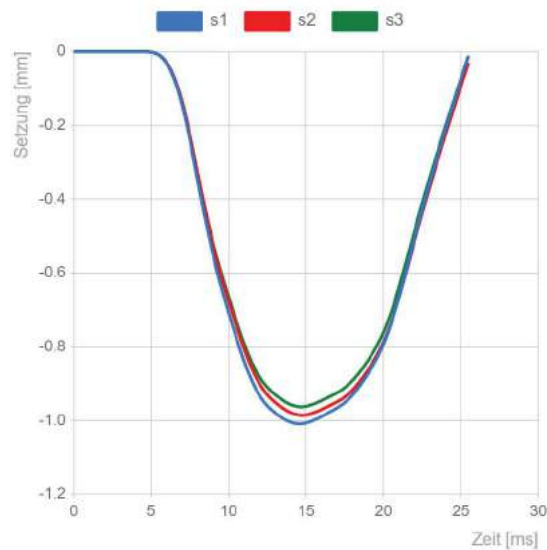
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
011
Test date
02/27/2023 04:12 PM
Device no.
LFG 13631
Tester
D. Marland

Test surface / layer
Top of Mat
Temperature / Weather

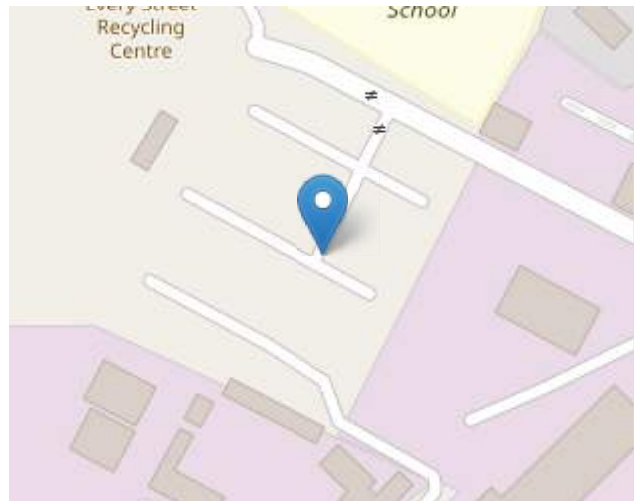
Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates

N 53° 36' 5.41" W 3° 42' 14.38"



Comments

CBR = 11.4%

Impact	s [mm]	v [mm/s]
1	1,009	216,16
2	0,986	206,66
3	0,963	199,74
Ø	0,986	207,52

s/v 4,75 ms

Ev2 -

Evd **22,82 MN/m²**

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
Radcliffe
M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

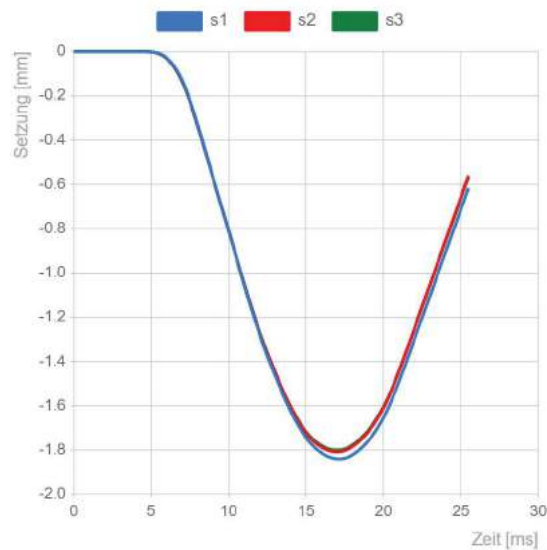
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
004
Test date
02/27/2023 03:58 PM
Device no.
LFG 13631
Tester
D. Marland

Test surface / layer
FRL
Temperature / Weather

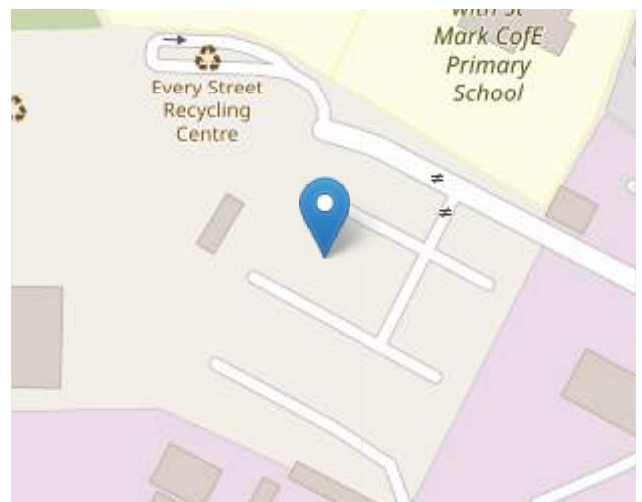
Soil type / class
6F2
Plate base
300mm

s/t-diagram



GPS coordinates

N 53° 36' 6.32" W 3° 42' 13.16"



Comments

CBR = 6.2%

Impact	s [mm]	v [mm/s]
1	1,840	241,84
2	1,808	238,79
3	1,800	237,36
Ø	1,816	239,33

s/v 7,59 ms
Ev2 -

Evd 12,39 MN/m²

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

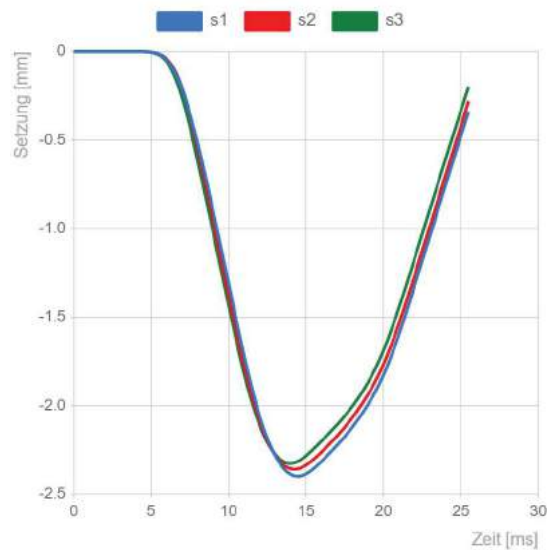
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
005
Test date
02/27/2023 04:00 PM
Device no.
LFG 13631
Tester
D. Marland

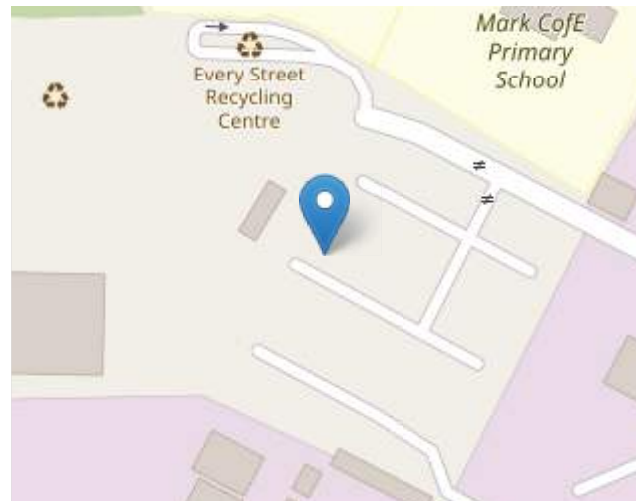
Test surface / layer
FRL
Temperature / Weather

Soil type / class
6F2
Plate base
300mm

s/t-diagram



GPS coordinates
N 53° 36' 6.22" W 3° 42' 12.36"



Comments
CBR = 4.9% Very saturated ground

Impact	s [mm]	v [mm/s]
1	2,398	411,45
2	2,358	418,90
3	2,325	409,24
Ø	2,360	413,20

s/v 5,71 ms
Ev2 -

Evd **9,53 MN/m²**

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

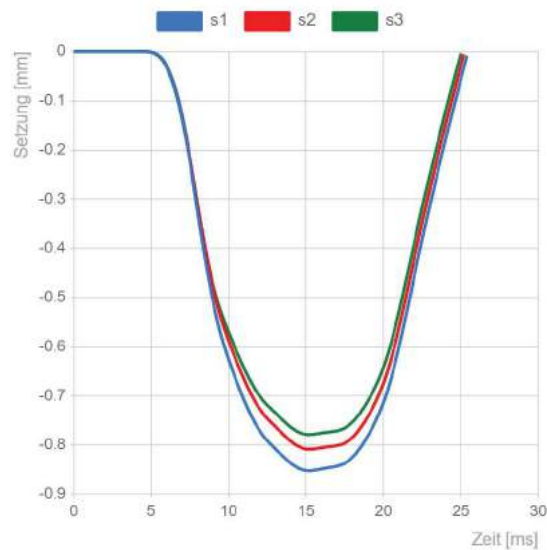
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
006
Test date
02/27/2023 04:04 PM
Device no.
LFG 13631
Tester
D. Marland

Test surface / layer
Top of Mat
Temperature / Weather

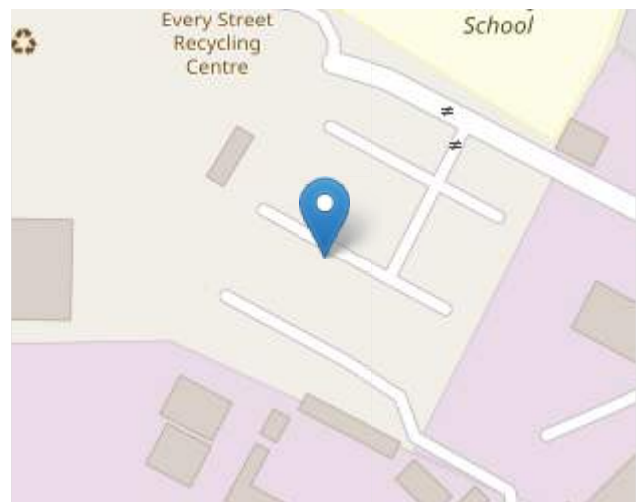
Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates

N 53° 36' 5.55" W 3° 42' 12.94"



Comments
CBR = 13.8%

Impact	s [mm]	v [mm/s]
1	0,852	201,79
2	0,808	188,57
3	0,779	182,25
Ø	0,813	190,87

s/v 4,26 ms
Ev2 -

Evd **27,68 MN/m²**

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
Radcliffe
M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

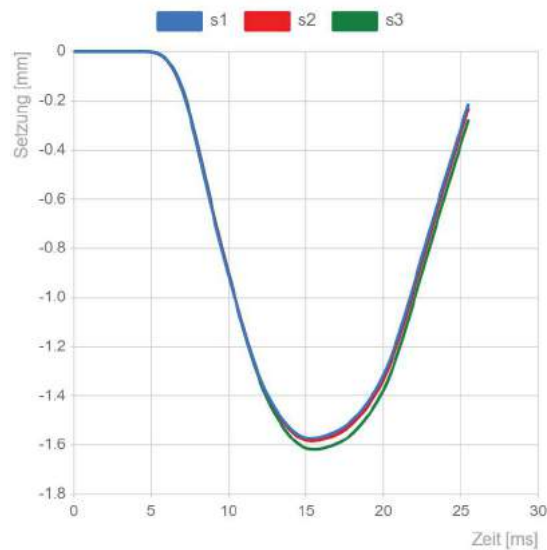
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
007
Test date
02/27/2023 04:05 PM
Device no.
LFG 13631
Tester
D. Marland

Test surface / layer
Top of Mat
Temperature / Weather

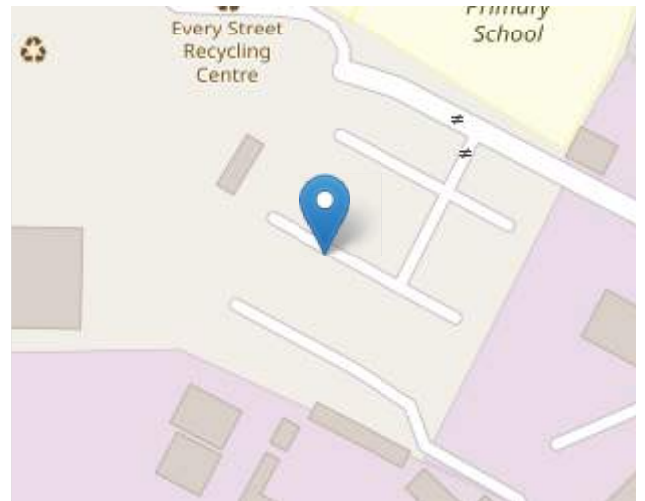
Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates

N 53° 36' 5.68" W 3° 42' 12.76"



Comments
CBR = 7.1%

Impact	s [mm]	v [mm/s]
1	1,572	273,70
2	1,583	270,14
3	1,617	273,11
Ø	1,591	272,32

s/v 5,84 ms
Ev2 -

Evd **14,15 MN/m²**

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Contact person
Angela G
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Number LKR221029
Every Street, Bury, BL9 5BE

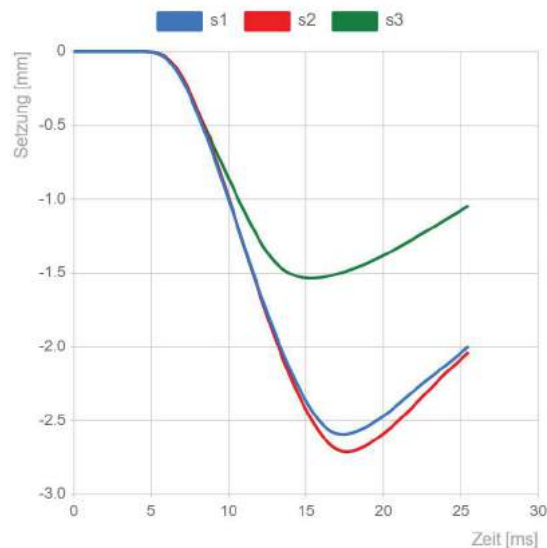
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
008
Test date
02/27/2023 04:07 PM
Device no.
LFG 13631
Tester
D. Marland

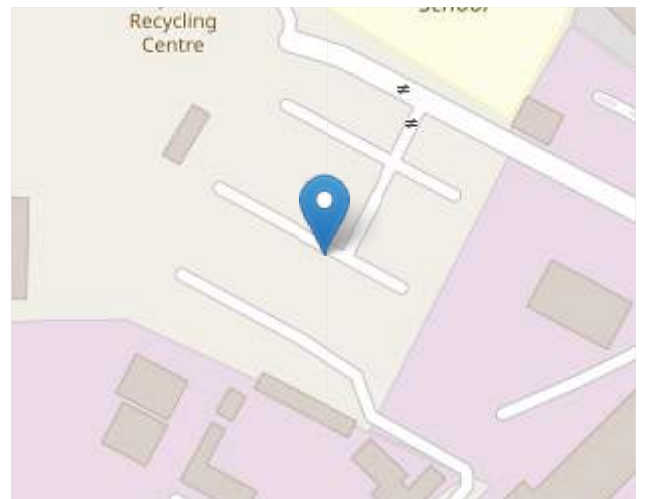
Test surface / layer
Top of Mat
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates
N 53° 36' 5.35" W 3° 42' 13.81"



Comments
CBR = 5.0%

Impact	s [mm]	v [mm/s]
1	2,593	315,74
2	2,711	328,87
3	1,536	225,31
Ø	2,280	289,97

s/v 7,86 ms
Ev2 -

Evd 9,87 MN/m²

Greater Manchester
02/27/2023

Dene Marland

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Name

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Number LKR221029
Every Street, Bury, BL9 5BE

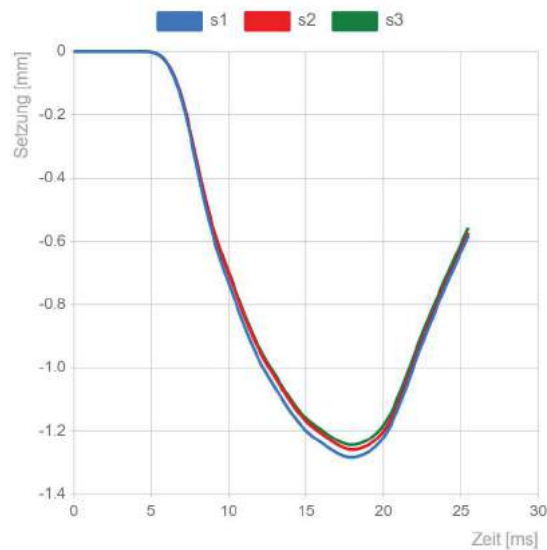
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
009
Test date
02/27/2023 04:09 PM
Device no.
LFG 13631
Tester
D. Marland

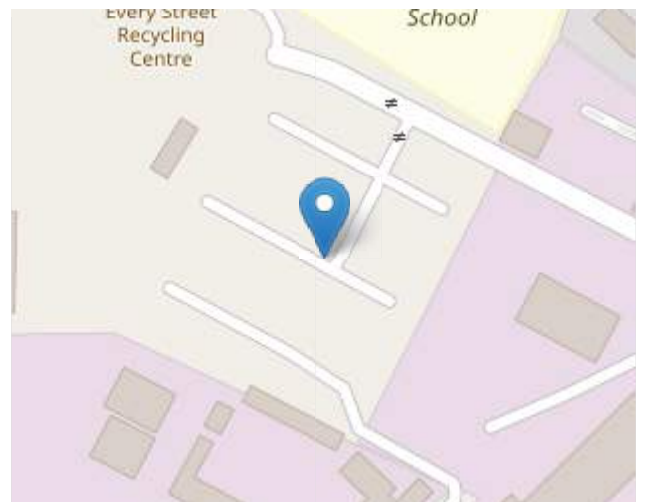
Test surface / layer
Top of Mat
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates
N 53° 36' 5.44" W 3° 42' 14.02"



Comments
CBR = 8.9%

Impact	s [mm]	v [mm/s]
1	1,282	230,84
2	1,258	221,85
3	1,243	216,78
Ø	1,261	223,16

s/v 5,65 ms
Ev2 -

Evd **17,84 MN/m²**

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

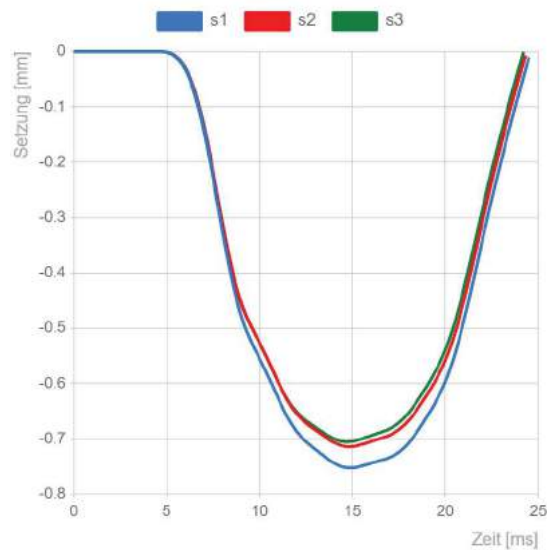
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
010
Test date
02/27/2023 04:11 PM
Device no.
LFG 13631
Tester
D. Marland

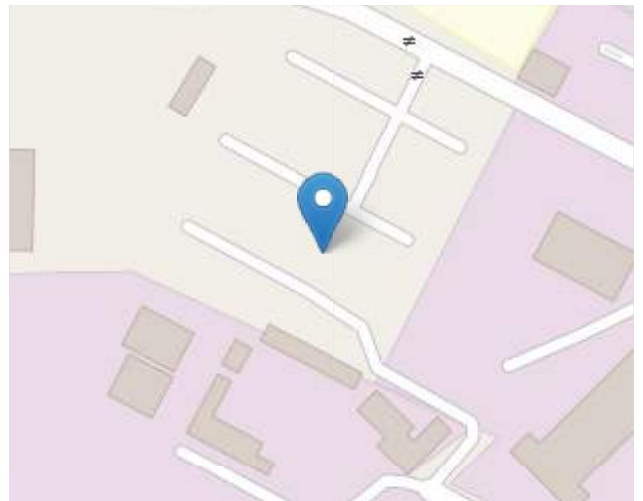
Test surface / layer
Top of Mat
Temperature / Weather

Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates
N 53° 36' 4.81" W 3° 42' 13.66"



Comments
CBR = 15.5%

Impact	s [mm]	v [mm/s]
1	0,752	189,67
2	0,714	180,19
3	0,705	179,00
Ø	0,724	182,95

s/v 3,96 ms
Ev2 -

Evd 31,09 MN/m²

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



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Dynamic Plate Load Test according to TP BF-StB B 8.3

Number LKR221029
Every Street, Bury, BL9 5BE

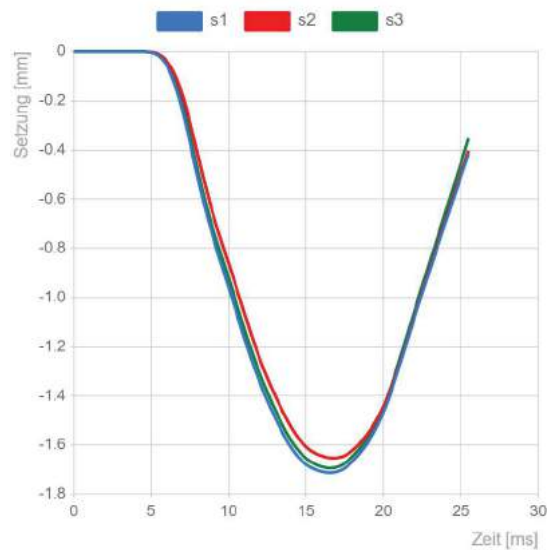
Client
John Southworth
10 Charles Street
Dukinfield
SK16 4SD Greater Manchester
☎ 0161 339 3340

Record no.
012
Test date
02/27/2023 04:15 PM
Device no.
LFG 13631
Tester
D. Marland

Test surface / layer
Top of Mat
Temperature / Weather

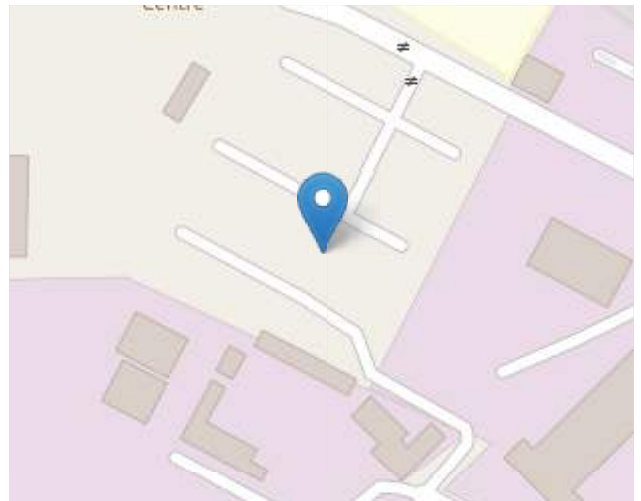
Soil type / class
MOT
Plate base
300mm

s/t-diagram



GPS coordinates

N 53° 36' 4.89" W 3° 42' 13.79"



Comments
CBR = 6.7%

Impact	s [mm]	v [mm/s]
1	1,712	278,74
2	1,653	261,51
3	1,693	284,99
Ø	1,686	275,08

s/v 6,13 ms
Ev2 -

Evd 13,35 MN/m²

Greater Manchester
02/27/2023

Dene Marland

Place, Date

Name

Signature / Stamp



LK Group Ltd
Unit 29, Eton Business Park Eton Hill Rd,
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M26 2ZS Greater Manchester
United Kingdom

Contact person
Angela G
✉ info@thelkgroup.com

Calibration certificate No. 22-13402

for the light drop-weight tester according to engineering code for soil and rock testing in road construction TP BF-StB part 8.4

Customer:

Manufacturer: HMP
Magdeburger Prüfgerätebau GmbH
Bülstringer Str.6
D-39126 Magdeburg
Type: HMP-LFG

Device number
Loading mechanism: 13402
Device number
Settlement meas. device: 13402
Year of construction: 2022

Drop weight: 10 kg
Impact force: 7070 N +/-1%
Impact duration: 17 ms+/-1,5 ms
Fall height: 730 mm

Test equipment: Load measuring device consist of
amplifier ML10 and compression force transducer C3H2/2t
Calibration label 1-270/D-K-15137-01-00/2021-11
Distance measuring device consist of
3 amplifiers ML55B and
3 induktiv distance sensors WA10
Calibration labels 00911,00912,00913/D-K-11267-01-00/2022-08
Air temperature: 20 °C

Person in charge: E. Budna

Test result: The light drop-weight tester meets the requirements
according to TP BF-StB part B 8.4 (2016) .

individual results at page 2 and 3

Number of pages of the certificate 3.

The extent of validity is 1 year, if no changes were made at the equipment.

Calibration laboratory BAST- approved calibration laboratory for the light drop-weight tester at TP BF-StB part 8.4



Bülstringer Str. 6, 39126 Magdeburg
+49(0)391 2514656 www.hmp-online.com

Date

17.10.2022


Dipl.-Ing. Leue
Head of the calibration laboratory

17.10.2022 page 1 of 3

22-13402

1. Loading mechanism

Series 1										
Measuring	1	2	3	4	5	6	7	8	9	10
Force [N]	7075	7073	7088	7083	7078	7079	7078	7077	7081	7080
Time [ms]	15,76	15,75	15,76	15,73	15,76	15,73	15,75	15,75	15,74	15,76
Impact force average: 6999 N <= 7079,2 < 7141 N Standard deviation: 4,21 <= 20 N T10 2,090 <= 2,410 T1 1,473 <= 2,410					Impact duration average: 15,5 ms <= 15,749 < 18,5 ms Standard deviation: 0,0120 <= 0,1 ms T10 0,917 <= 2,410 T1 1,583 <= 2,410					
Series 2										
Measuring	1	2	3	4	5	6	7	8	9	10
Force [N]	7073	7077	7082	7077	7078	7086	7072	7077	7074	7074
Time [ms]	15,73	15,75	15,74	15,73	15,74	15,73	15,74	15,73	15,73	15,74
Impact force average: 6999 N <= 7077,0 < 7141 N Standard deviation: 4,29 <= 20 N T10 2,098 <= 2,410 T1 1,166 <= 2,410					Impact duration average: 15,5 ms <= 15,736 < 18,5 ms Standard deviation: 0,0070 <= 0,1 ms T10 2,000 <= 2,410 T1 0,857 <= 2,410					
Series 3										
Measuring	1	2	3	4	5	6	7	8	9	10
Force [N]	7068	7075	7088	7080	7079	7076	7073	7074	7076	7071
Time [ms]	15,73	15,71	15,74	15,74	15,76	15,73	15,74	15,75	15,75	15,74
Impact force average: 6999 N <= 7076,0 < 7141 N Standard deviation: 5,50 <= 20 N T10 2,182 <= 2,410 T1 1,455 <= 2,410					Impact duration average: 15,5 ms <= 15,739 < 18,5 ms Standard deviation: 0,0137 <= 0,1 ms T10 1,533 <= 2,410 T1 2,117 <= 2,410					
average value of 3 force meas. series					7077,40 N					
Standard deviation of 3 force meas. series					1,637 <= 10 N					
At a falling height of 730 mm the load. mechanism meets the requirem. of force and duration according to TP BF-StB Teil B 8.4.										

Cross out values were according to test instruction recognized as runaways
and were disregarded at the calculation.

2. Settlement measuring device after calibration

Comparison of the reference values S_a , S_b and S_c from the inductiv distance sensors and the electronic settlement measuring instrument S_{lfg} :

	Meas.range >0,9 mm						Meas.range 0,4 mm - 0,6 mm						Meas.range 0,25 mm - 0,4 mm					
No.	Sa	Sb	Sc	Sm	Slfg	Sm-Slfg	Sa	Sb	Sc	Sm	Slfg	Sm-Slfg	Sa	Sb	Sc	Sm	Slfg	Sm-Slfg
1	1,286	1,345	1,413	1,348	1,346	-0,002	0,470	0,475	0,518	0,488	0,494	0,006	0,298	0,298	0,316	0,304	0,301	-0,003
2	1,296	1,343	1,408	1,349	1,352	0,003	0,468	0,475	0,518	0,487	0,486	-0,001	0,295	0,296	0,320	0,304	0,301	-0,003
3	1,300	1,346	1,405	1,350	1,347	-0,003	0,467	0,475	0,520	0,487	0,492	0,005	0,296	0,297	0,316	0,303	0,299	-0,004
4	1,294	1,339	1,409	1,347	1,349	0,002	0,471	0,477	0,519	0,489	0,492	0,003	0,297	0,298	0,317	0,304	0,298	-0,006
5	1,296	1,343	1,410	1,350	1,347	-0,003	0,469	0,473	0,518	0,487	0,492	0,005	0,295	0,297	0,319	0,304	0,295	-0,009
6	1,305	1,348	1,408	1,354	1,346	-0,008	0,470	0,479	0,516	0,488	0,494	0,006	0,296	0,295	0,318	0,303	0,301	-0,002
7	1,294	1,338	1,408	1,347	1,343	-0,004	0,470	0,477	0,516	0,487	0,496	0,009	0,297	0,297	0,317	0,304	0,301	-0,003
8	1,296	1,344	1,412	1,351	1,349	-0,002	0,468	0,473	0,518	0,486	0,490	0,004	0,294	0,298	0,316	0,303	0,301	-0,002
9	1,293	1,344	1,402	1,346	1,347	0,001	0,467	0,476	0,520	0,488	0,497	0,009	0,291	0,299	0,317	0,302	0,298	-0,004
10	1,297	1,341	1,403	1,347	1,352	0,005	0,469	0,474	0,516	0,486	0,489	0,003	0,294	0,298	0,318	0,303	0,299	-0,004
Mw				1,3489	1,3478	-0,0011				0,4873	0,4925	0,0049				0,3034	0,2991	-0,0040
sig				0,0024	0,0028	0,0038				0,0009	0,0034	0,0030				0,0007	0,0020	0,0021
	T10 (Reference) 2,125 <= 2,410 T1 (Reference) : 1,208 <= 2,410 T10 (Lfg) : 1,536 <= 2,410 T1 (Lfg) : 1,750 <= 2,410 T10 (Difference) :1,605 <= 2,410 T1 (Difference) : 1,816 <= 2,410 sigma (Ref) 0,002 <= 0,020 mm sigma (Lfg) 0,003 <= 0,020 mm T (delta) -11,567 <= 2,262 Delta Differenz 0,001 <= 0,015 mm						T10 (Reference) :1,889 <= 2,410 T1 (Reference) : 1,444 <= 2,410 T10 (Lfg) : 1,441 <= 2,410 T1 (Lfg) : 1,882 <= 2,410 T10 (Difference) :1,367 <= 2,410 T1 (Difference) : 1,967 <= 2,410 sigma (Ref) 0,001 <= 0,010 mm sigma (Lfg) 0,003 <= 0,010 mm T (delta) -5,376 <= 2,262 Delta Differenz 0,005 <= 0,010 mm						T10 (Reference) 0,857 <= 2,410 T1 (Reference) : 2,000 <= 2,410 T10 (Lfg) : 0,800 <= 2,410 T1 (Lfg) : 2,250 <= 2,410 T10 (Difference) :0,952 <= 2,410 T1 (Difference) : 2,381 <= 2,410 sigma (Ref) 0,001 <= 0,010 mm sigma (Lfg) 0,002 <= 0,010 mm T (delta) -9,035 <= 2,262 T (var) 0,007 <= 0,021 Delta Differenz 0,004 <= 0,010 mm					
The settlement measuring instrument meets the requirements according to TP BF-StB Teil B 8.4.																		

TEST REPORT

Client LK Remediate Ltd

Address Unit 29 Eton Business Park
Eton Hill Road
Radcliffe
Greater Manchester
M26 2ZS

Contract LKR 22 1029 -
Every Street, Bury

Job Number MRN 4607/3
Date of Issue 16 January 2023
Page 1 of 17

Approved Signatories

S J Hutchings, O P Davies

Notes

- 1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.
- 2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.
- 3 Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation.
- 4 Certified that the samples have been examined and tested in accordance with the terms of the contract/order and unless otherwise stated conform to the standards/specifications quoted.
- 5 The results included within the report are representative of the samples submitted for analysis.
- 6 This certificate should not be reproduced, except in full, without the express permission of the laboratory.



Andrew House, Hadfield Street, Dukinfield, Cheshire SK16 4QX Tel: 0161 475 0870
Email: enquiries@murrayrix.com Website: www.murrayrix.com

Also at: London: 020 8523 1999

Murray Rix is the trading name of Murray Rix (Northern) Limited. Registered in England 2878361

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

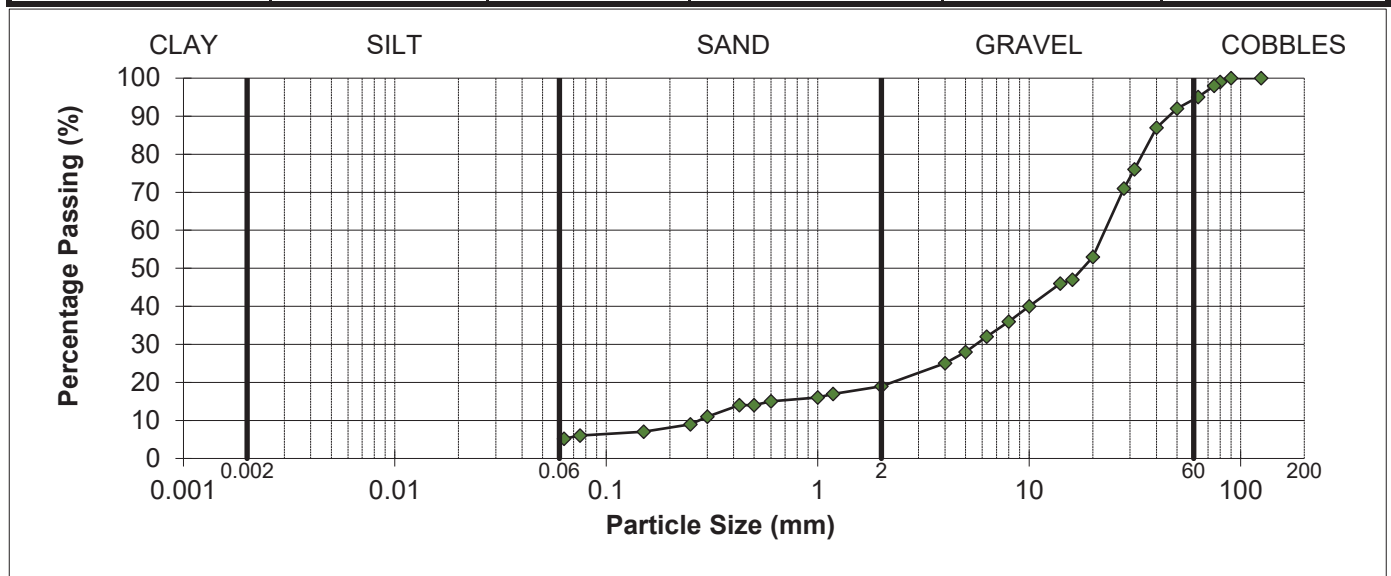
BS EN 933-1 : 2012 (Washing & Sieving Method)
Determination of water content in accordance with BS EN 1097-5:2008

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR01	DATE SAMPLED	20-Dec-22
LAB SAMPLE No	119828	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	Site Won

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	6.3	32	
90	100		5	28	
80	99	75-99	4	25	
75	98		2	19	0-35
63	95		1.18	17	
50	92		1	16	
40	87	50-90	0.6	15	
31.5	76		0.5	14	
28	71		0.425	14	
20	53	30-75	0.3	11	
16	47		0.25	9	
14	46		0.15	7	
10	40	15-60	0.075	6	
8	36		0.063	5.2	0-12



REMARKS

As received water content = 7.1%

Sample complies with the advised grading specification for a 6F5 material (SHW 2016)

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119828
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR01
Certificate of sampling received : No
Date and time of sampling : 20-Dec-22
Date received at Laboratory : 21-Dec-22
Date of start of test : 04-Jan-23
Sampling Location : Site
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Size Fraction : 30% passing 14mm retained 12.5mm
70% passing 12.5mm retained 10mm
Mass of dry sample tested : 5000g
Target specification : <50

RESULT

Los Angeles Coefficient : 24

Comment

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS EN 13286-4:2021

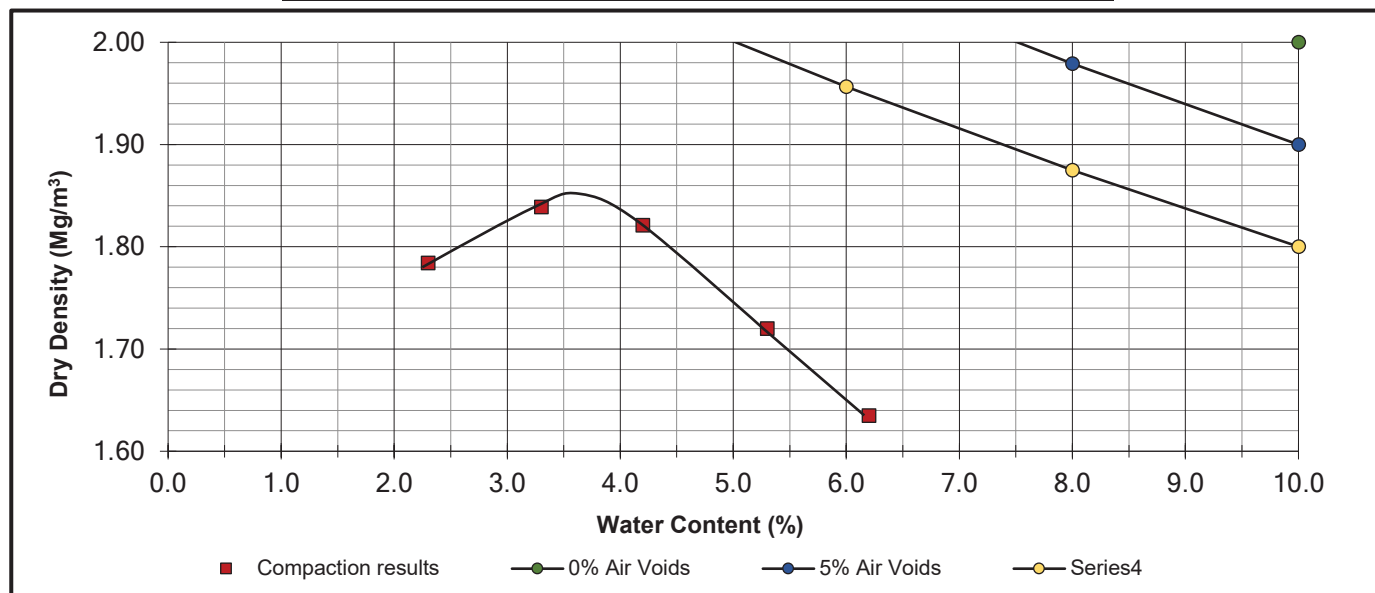
CLIENT	LK Remediate
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR01	DATE SAMPLED	20-Dec-22
SAMPLE NUMBER	119828	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recyled Aggregate
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried

RETAINED 40mm	13 %	VIBRATING HAMMER	Hikoki DH40MC Rotary Hammer
RETAINED 20mm	47 %	PARTICLE DENSITY	2.50 Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	2.3	1.784
2	3.3	1.839
3	4.2	1.821
4	5.3	1.720
5	6.2	1.635



OPTIMUM WATER CONTENT	3.6 (%)
MAXIMUM DRY DENSITY	1.85 (Mg/m ³)
FORM OF CURVE	Convex Downwards

REMARKS

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119828
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR01
Certificate of sampling received : No
Date and time of sampling : 20 December 2022
Date received at Laboratory : 21 December 2022
Date of start of test : 22 December 2022
Sampling Location : Not advised
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Mass of dry sample tested : 50 kg
Drying Temperature : $40 \pm 5^{\circ}\text{C}$

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	72
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	4.9
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	17
Ra	Bituminous materials	5.6
Rg	Glass	0.1
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	0.3
FL	Floating Particles (cm^3/kg)	3.6

Comments

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

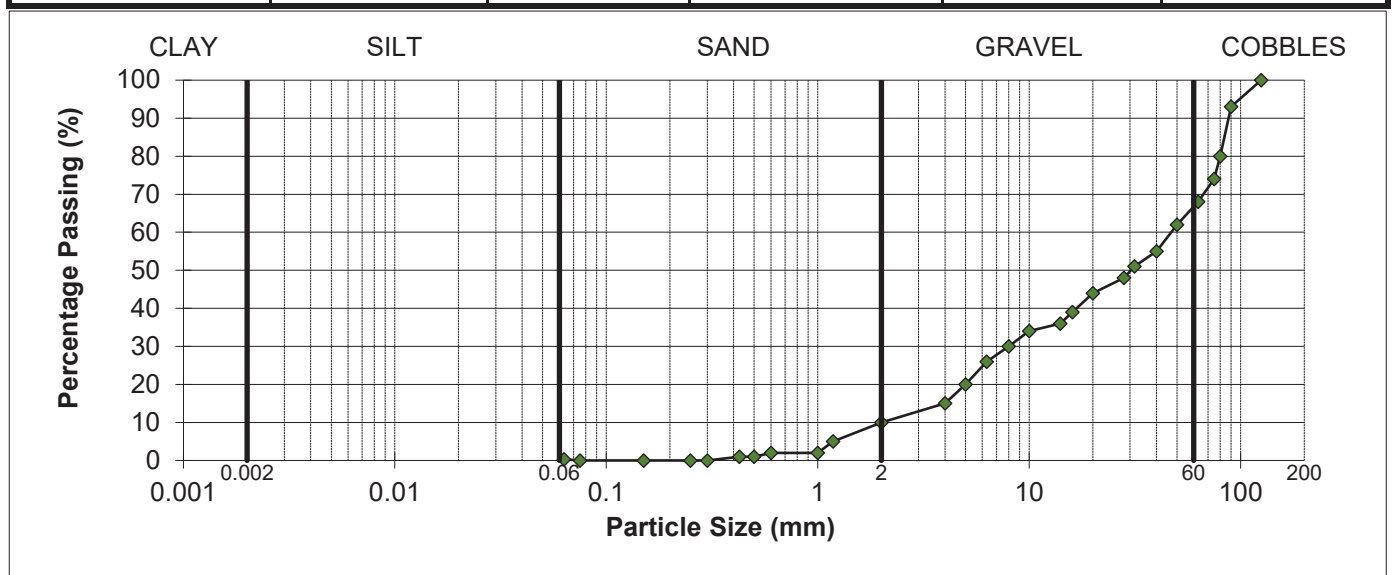
BS EN 933-1 : 2012 (Washing & Sieving Method)
Determination of water content in accordance with BS EN 1097-5:2008

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR02	DATE SAMPLED	20-Dec-22
LAB SAMPLE No	119829	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	Site Won

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	6.3	26	
90	93		5	20	
80	80	75-99	4	15	
75	74		2	10	0-35
63	68		1.18	5	
50	62		1	2	
40	55	50-90	0.6	2	
31.5	51		0.5	1	
28	48		0.425	1	
20	44	30-75	0.3	0	
16	39		0.25	0	
14	36		0.15	0	
10	34	15-60	0.075	0	
8	30		0.063	0.3	0-12



REMARKS

As received water content = 4.9%

Sample complies with the advised grading specification for a 6F5 material (SHW 2016)

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119829
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR02
Certificate of sampling received : No
Date and time of sampling : 20-Dec-22
Date received at Laboratory : 21-Dec-22
Date of start of test : 04-Jan-23
Sampling Location : Site
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Size Fraction : 31% passing 14mm retained 12.5mm
69% passing 12.5mm retained 10mm
Mass of dry sample tested : 5000g
Target specification : <50

RESULT

Los Angeles Coefficient : 32

Comment

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS EN 13286-4:2021

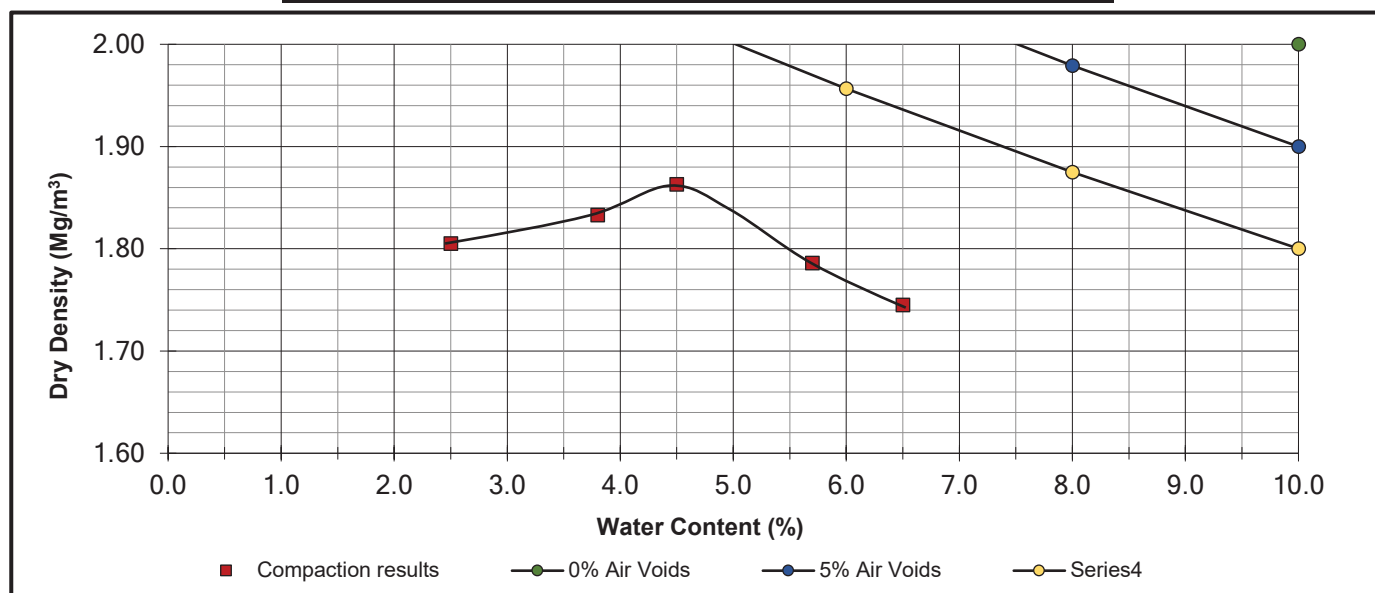
CLIENT	LK Remediate
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR02	DATE SAMPLED	20-Dec-22
SAMPLE NUMBER	119829	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried

RETAINED 40mm	45 %	VIBRATING HAMMER	Hikoki DH40MC Rotary Hammer
RETAINED 20mm	56 %	PARTICLE DENSITY	2.50 Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	2.5	1.805
2	3.8	1.833
3	4.5	1.863
4	5.7	1.786
5	6.5	1.745



OPTIMUM WATER CONTENT	4.5 (%)
MAXIMUM DRY DENSITY	1.86 (Mg/m ³)
FORM OF CURVE	Convex Downwards

REMARKS

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119829
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR02
Certificate of sampling received : No
Date and time of sampling : 20 December 2022
Date received at Laboratory : 21 December 2022
Date of start of test : 22 December 2022
Sampling Location : Not advised
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Mass of dry sample tested : 50 kg
Drying Temperature : $40 \pm 5^{\circ}\text{C}$

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	77
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	3.8
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	15
Ra	Bituminous materials	3.8
Rg	Glass	0.4
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	0.2
FL	Floating Particles (cm^3/kg)	1.7

Comments

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN 933-1 : 2012 (Washing & Sieving Method)

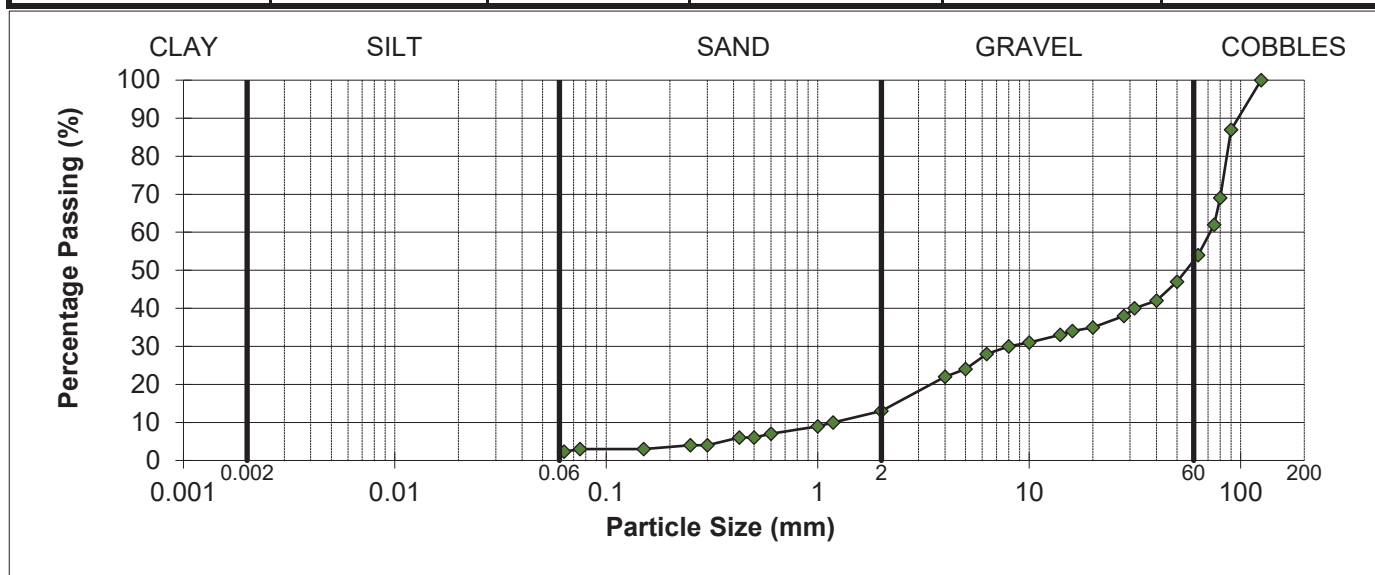
Determination of water content in accordance with BS EN 1097-5:2008

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR03	DATE SAMPLED	20-Dec-22
LAB SAMPLE No	119830	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	Site Won

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	6.3	28	
90	87		5	24	
80	69	75-99	4	22	
75	62		2	13	0-35
63	54		1.18	10	
50	47		1	9	
40	42	50-90	0.6	7	
31.5	40		0.5	6	
28	38		0.425	6	
20	35	30-75	0.3	4	
16	34		0.25	4	
14	33		0.15	3	
10	31	15-60	0.075	3	
8	30		0.063	2.3	0-12



REMARKS

As received water content = 7.9%

Sample fails to comply with the advised grading specification for a 6F5 material (SHW 2016)

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119830
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR03
Certificate of sampling received : No
Date and time of sampling : 20-Dec-22
Date received at Laboratory : 21-Dec-22
Date of start of test : 04-Jan-23
Sampling Location : Site
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Size Fraction : 30% passing 14mm retained 12.5mm
70% passing 12.5mm retained 10mm
Mass of dry sample tested : 5000g
Target specification : <50

RESULT

Los Angeles Coefficient : **36**

Comment

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS EN 13286-4:2021

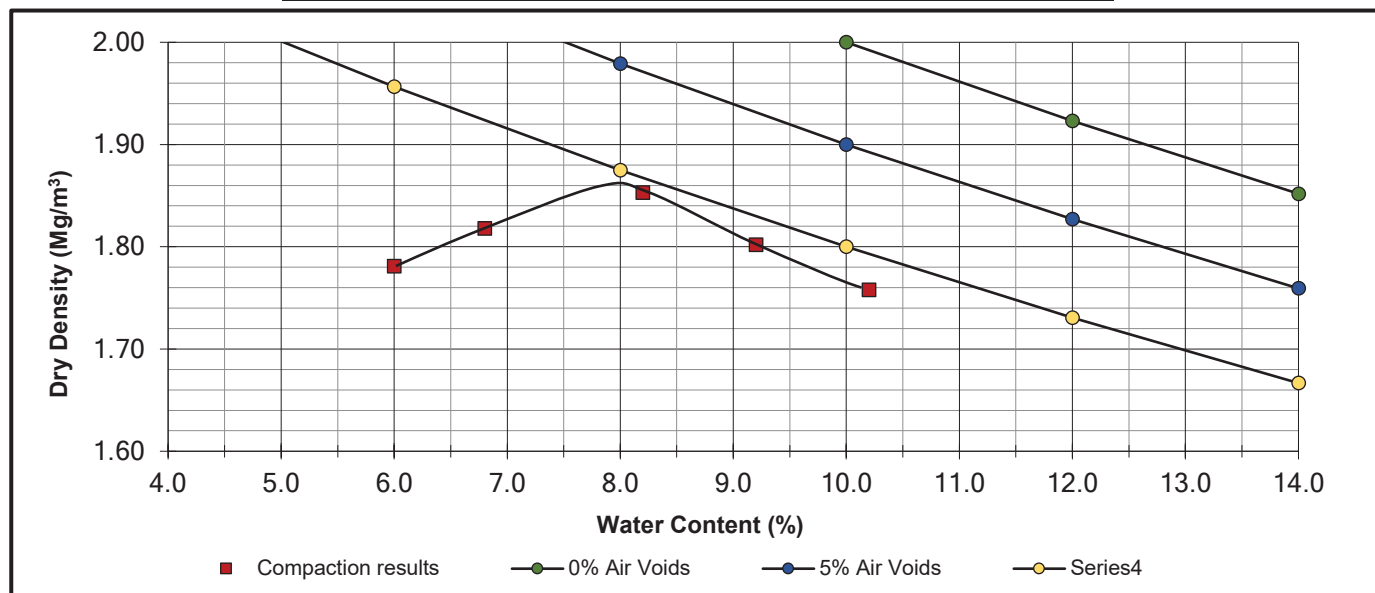
CLIENT	LK Remediate
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR03	DATE SAMPLED	20-Dec-22
SAMPLE NUMBER	119830	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried

RETAINED 40mm	58 %	VIBRATING HAMMER	Hikoki DH40MC Rotary Hammer
RETAINED 20mm	65 %	PARTICLE DENSITY	2.50 Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	6.0	1.781
2	6.8	1.818
3	8.2	1.853
4	9.2	1.802
5	10.2	1.758



OPTIMUM WATER CONTENT	8.0 (%)
MAXIMUM DRY DENSITY	1.86 (Mg/m ³)
FORM OF CURVE	Convex Downwards

REMARKS

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119830
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR03
Certificate of sampling received : No
Date and time of sampling : 20 December 2022
Date received at Laboratory : 21 December 2022
Date of start of test : 22 December 2022
Sampling Location : Not advised
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Mass of dry sample tested : 50 kg
Drying Temperature : $40 \pm 5^{\circ}\text{C}$

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	74
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	5.1
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	18
Ra	Bituminous materials	1.9
Rg	Glass	0.7
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	0.3
FL	Floating Particles (cm^3/kg)	1.9

Comments

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

TEST CERTIFICATE
PARTICLE SIZE DISTRIBUTION

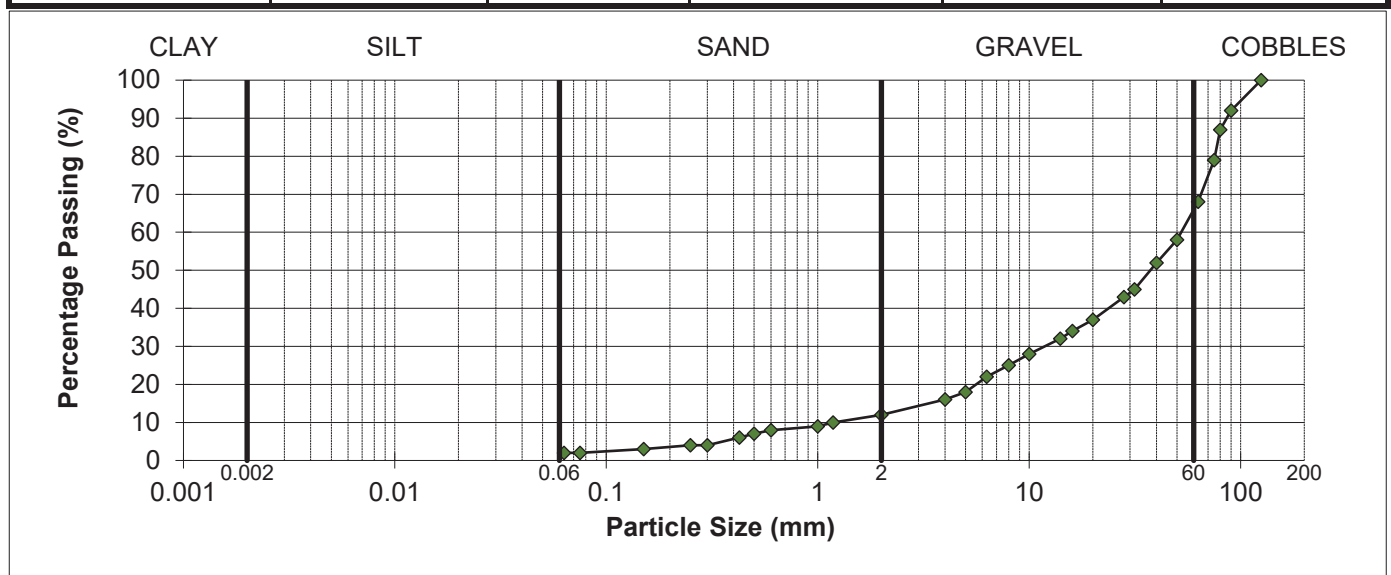
BS EN 933-1 : 2012 (Washing & Sieving Method)
Determination of water content in accordance with BS EN 1097-5:2008

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR04	DATE SAMPLED	20-Dec-22
LAB SAMPLE No	119831	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	Site Won

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100	100	6.3	22	
90	92		5	18	
80	87	75-99	4	16	
75	79		2	12	0-35
63	68		1.18	10	
50	58		1	9	
40	52	50-90	0.6	8	
31.5	45		0.5	7	
28	43		0.425	6	
20	37	30-75	0.3	4	
16	34		0.25	4	
14	32		0.15	3	
10	28	15-60	0.075	2	
8	25		0.063	2.0	0-12



REMARKS

As received water content = 8.1%

Sample complies with the advised grading specification for a 6F5 material (SHW 2016)

SIGNED



NAME

O.P. Davies BA (Hons)
(Laboratory Manager)

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF RESISTANCE TO FRAGMENTATION BY THE LOS ANGELES TEST METHOD

BS EN 1097-2:2020

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119831
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR04
Certificate of sampling received : No
Date and time of sampling : 20-Dec-22
Date received at Laboratory : 21-Dec-22
Date of start of test : 04-Jan-23
Sampling Location : Site
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Size Fraction : 30% passing 14mm retained 12.5mm
70% passing 12.5mm retained 10mm
Mass of dry sample tested : 5000g
Target specification : <50

RESULT

Los Angeles Coefficient : 31

Comment

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DRY DENSITY/WATER CONTENT RELATIONSHIP VIBRATING HAMMER
BS EN 13286-4:2021

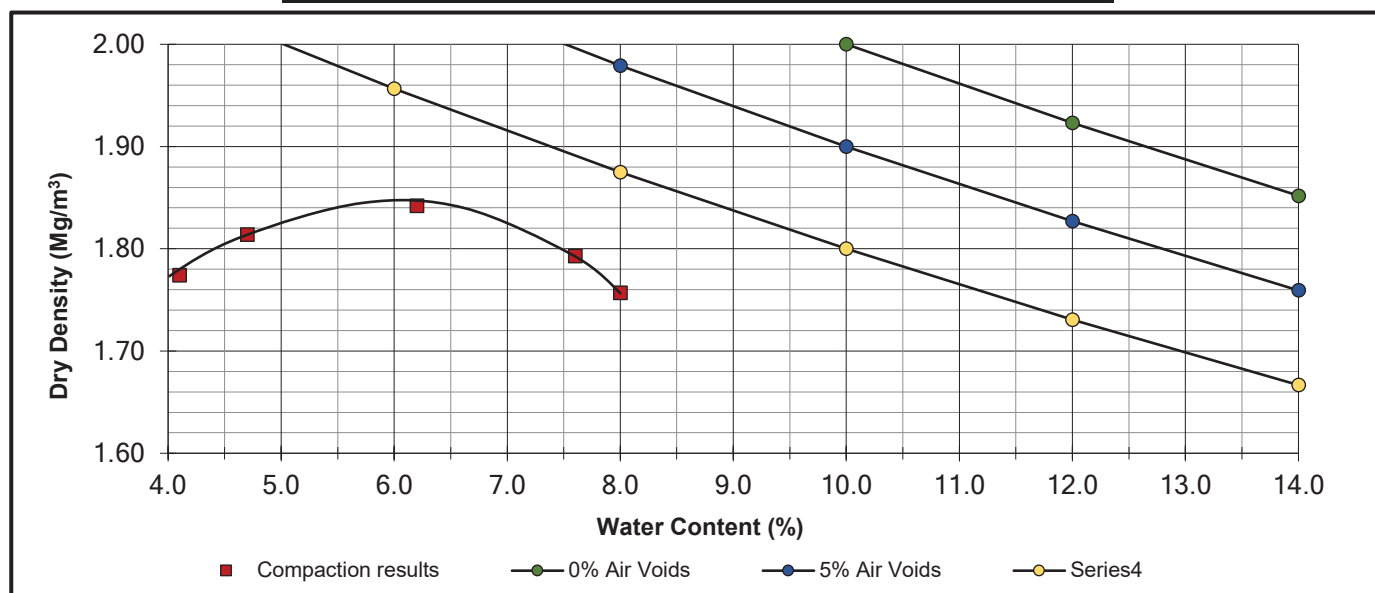
CLIENT	LK Remediate
SITE	LKR 22 1029 - Every Street, Bury
JOB NUMBER	MRN 4607/3

SAMPLE LABEL	CR04	DATE SAMPLED	20-Dec-22
SAMPLE NUMBER	119831	DATE RECEIVED	21-Dec-22
DATE TESTED	22-Dec-22	SAMPLED BY	Client

MATERIAL	Recycled Aggregate
ADVISED SOURCE	As client & site above
PRE TREATMENT	Air Dried

RETAINED 40mm	48 %	VIBRATING HAMMER	Hikoki DH40MC Rotary Hammer
RETAINED 20mm	63 %	PARTICLE DENSITY	2.50 Mg/m ³ (Assumed)

POINT NUMBER	WATER CONTENT (%)	DRY DENSITY (Mg/m ³)
1	4.1	1.774
2	4.7	1.814
3	6.2	1.842
4	7.6	1.793
5	8.0	1.757



OPTIMUM WATER CONTENT	6.1 (%)
MAXIMUM DRY DENSITY	1.85 (Mg/m ³)
FORM OF CURVE	Convex Downwards

REMARKS

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE 16-Jan-23

MURRAY RIX

ANDREW HOUSE, HADFIELD STREET,
DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



TEST CERTIFICATE

DETERMINATION OF CONSTITUENTS OF COARSE RECYCLED AGGREGATE

BS EN 933-11:2009

CLIENT	LK Remediate Ltd
SITE	LKR 22 1029 - Every Street, Bury

SAMPLE DETAILS

Job Number : MRN 4607/3
Laboratory sample number : 119831
Material : Recycled Aggregate
Advised source : Site Won
Site mark : CR04
Certificate of sampling received : No
Date and time of sampling : 20 December 2022
Date received at Laboratory : 21 December 2022
Date of start of test : 22 December 2022
Sampling Location : Not advised
Method of sampling : BS EN 932-1 : 1997
Sampled by : Client
Mass of dry sample tested : 50 kg
Drying Temperature : $40 \pm 5^{\circ}\text{C}$

RESULT

Constituent	Description	Proportion (%)
Rc	Concrete, Concrete products, Mortar, Concrete masonry units	78
Ru	Unbound aggregate, Natural stone, Hydraulically bound aggregate	4.8
Rb	Clay masonry units (i.e. bricks & tiles), Calcium silicate masonry units, Aerated non-floating concrete	13
Ra	Bituminous materials	3.1
Rg	Glass	0.4
X	Other: Cohesive (i.e. clay & soil), Metals (ferrous & non-ferrous), Non-floating wood, plastic & rubber, Gypsum plaster	0.4
FL	Floating Particles (cm^3/kg)	2.8

Comments

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

SIGNED

DATE

16-Jan-23

TEST REPORT

Client LK Remediate Ltd

Address Unit 29 Eton Business Park
Eton Hill Road
Radcliffe
Greater Manchester
M26 2ZS

Contract LKR 22 1029 -
Every Street, Bury

Job Number MRN 4607/4
Date of Issue 26 January 2023
Page 1 of 8

Approved Signatories

S J Hutchings, O P Davies

Notes

- 1 All remaining samples and remnants from this contract will be disposed 28 days from the date of this report unless you notify us to the contrary.
- 2 Result certificates, in this report, not bearing a UKAS mark, are not included in our UKAS accreditation schedule.
- 3 Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation.
- 4 Certified that the samples have been examined and tested in accordance with the terms of the contract/order and unless otherwise stated conform to the standards/specifications quoted.
- 5 The results included within the report are representative of the samples submitted for analysis.
- 6 This certificate should not be reproduced, except in full, without the express permission of the laboratory.



Andrew House, Hadfield Street, Dukinfield, Cheshire SK16 4QX Tel: 0161 475 0870
Email: enquiries@murrayrix.com Website: www.murrayrix.com

Also at: London: 020 8523 1999

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DUKINFIELD, CHESHIRE SK16 4QX
TEL 0161 475 0870



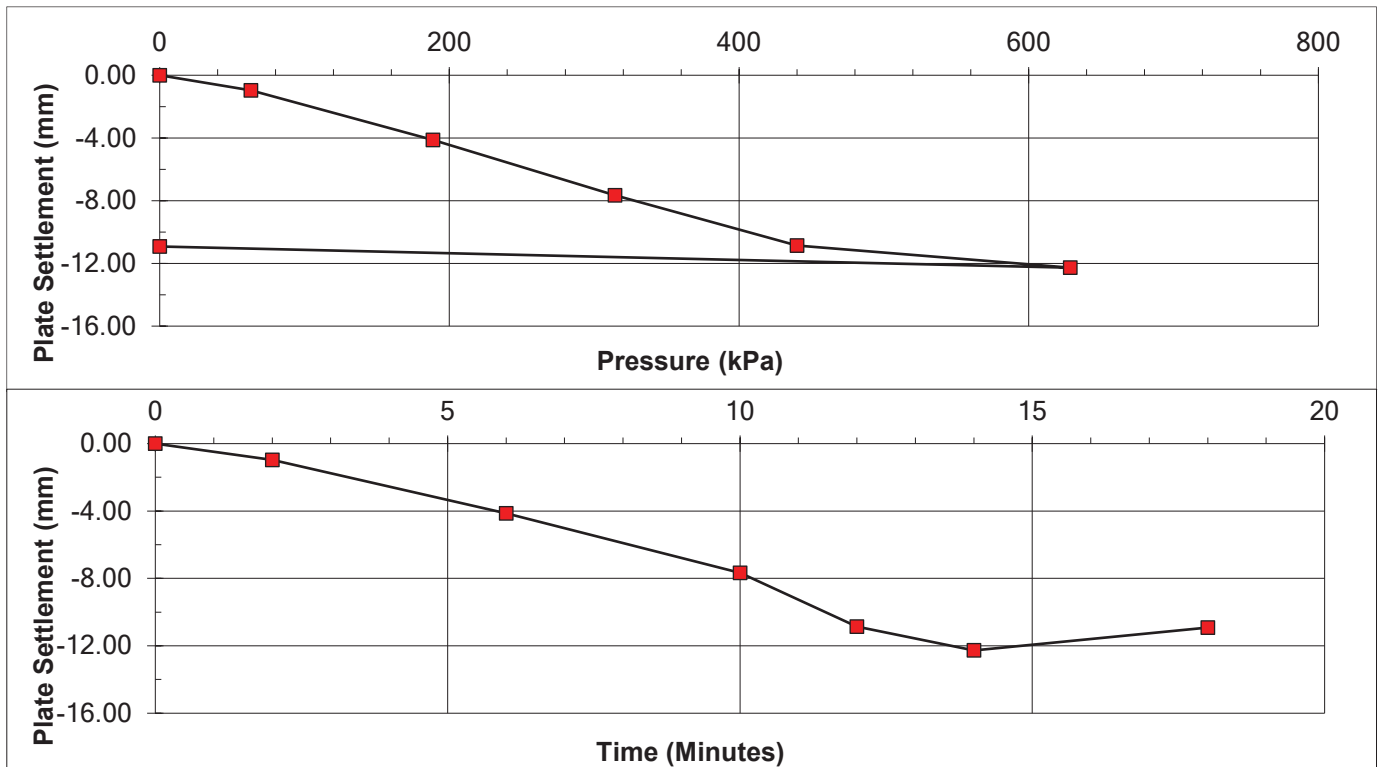
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	LK Remediate Ltd					
SITE	LKR 22 1029 Every Street, Bury					
JOB NUMBER	MRN 4607/4					
TEST LOCATION	Test 01	LOADING DEVICE	20 Tonne Enerpac Jack			
TEST DATE	25-Jan-23	PLATE SIZE (mm)	450 diameter			
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant			
MATERIAL UNDER TEST	Crush		MOISTURE CONTENT	Not Required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4464	4752	4539	4585	0.00	0.00	0.0
4292	4690	4484	4489	-0.96	10.00	62.9
4040	4359	4117	4172	-4.13	30.00	188.6
3654	4031	3770	3818	-7.67	50.00	314.4
3251	3722	3526	3500	-10.85	70.00	440.1
3050	3572	3451	3358	-12.27	100.00	628.8
3127	3699	3652	3493	-10.92	0.00	0.0



Pressure at 1.25 mm deflexion =	74 kPa
Modulus of subgrade reaction (k) =	59 MPa/m
Equivalent 762 mm plate reaction =	37 MPa/m
Equivalent CBR =	5.0 %

REMARKS

SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 26-Jan-23

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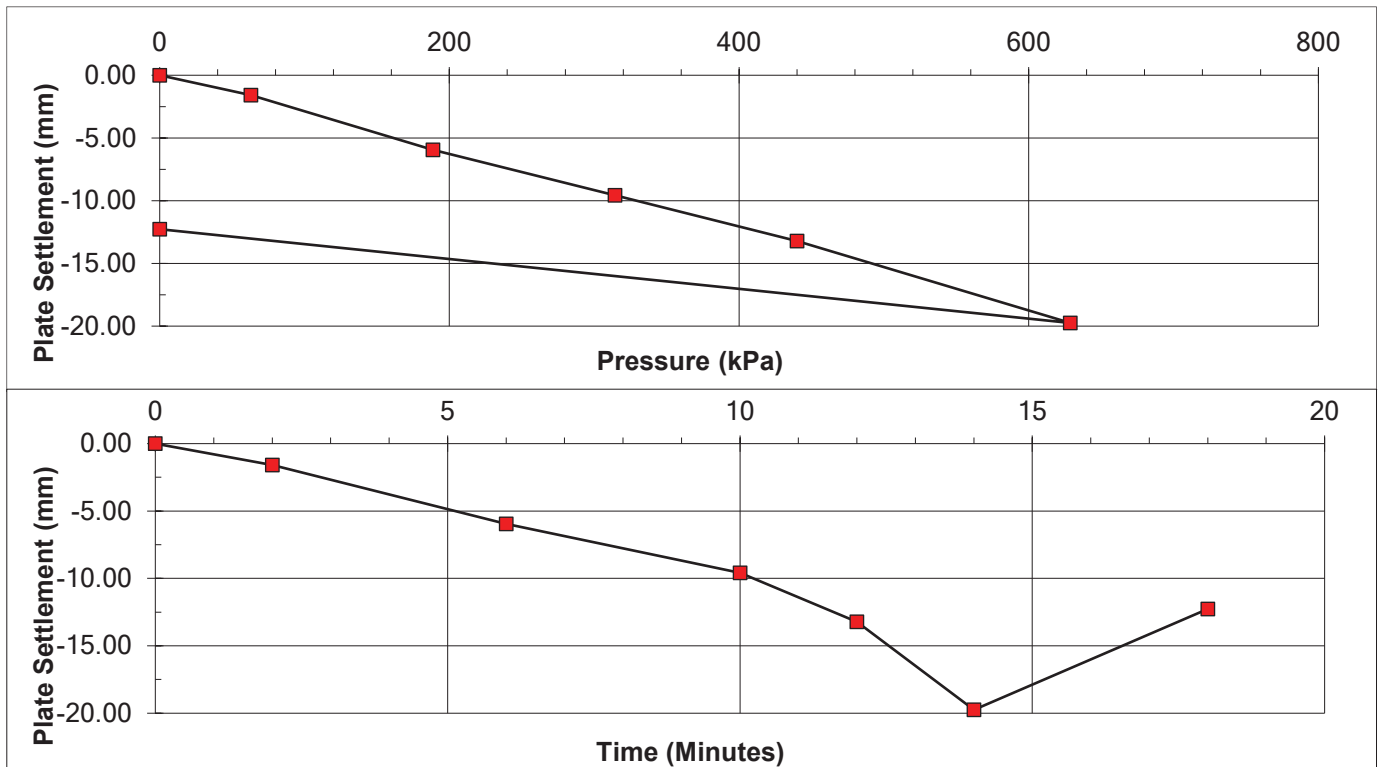
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	LK Remediate Ltd					
SITE	LKR 22 1029 Every Street, Bury					
JOB NUMBER	MRN 4607/4					
TEST LOCATION	Test 02	LOADING DEVICE	20 Tonne Enerpac Jack			
TEST DATE	25-Jan-23	PLATE SIZE (mm)	450 diameter			
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant			
MATERIAL UNDER TEST	Crush		MOISTURE CONTENT	Not Required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
3971	4642	4527	4380	0.00	0.00	0.0
3740	4578	4349	4222	-1.58	10.00	62.9
3331	4089	3932	3784	-5.96	30.00	188.6
3052	3720	3494	3422	-9.58	50.00	314.4
2660	3351	3162	3058	-13.22	70.00	440.1
1934	2790	2492	2405	-19.75	100.00	628.8
2572	3592	3294	3153	-12.27	0.00	0.0



Pressure at 1.25 mm deflexion =	50 kPa
Modulus of subgrade reaction (k) =	40 MPa/m
Equivalent 762 mm plate reaction =	25 MPa/m
Equivalent CBR =	2.5 %

REMARKS

SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 26-Jan-23

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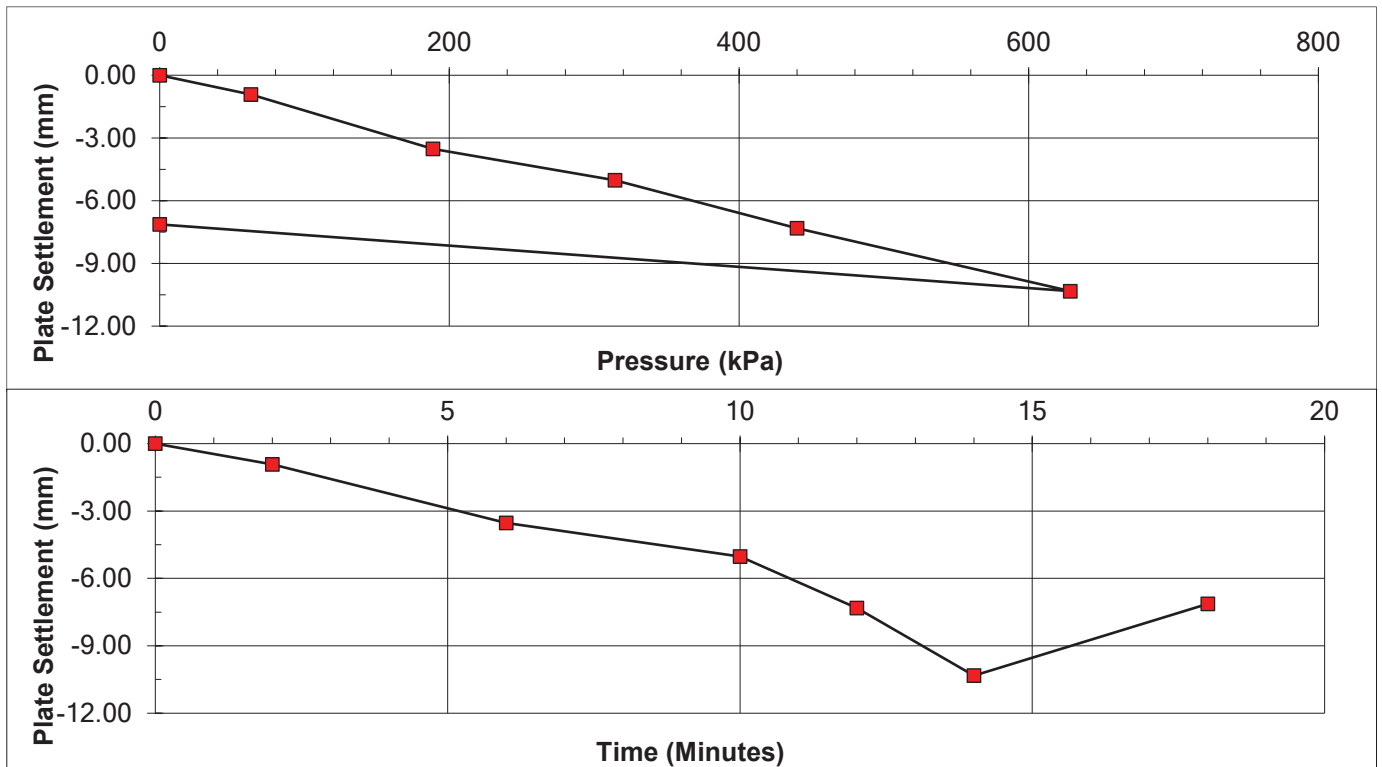
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	LK Remediate Ltd					
SITE	LKR 22 1029 Every Street, Bury					
JOB NUMBER	MRN 4607/4					
TEST LOCATION	Test 03	LOADING DEVICE	20 Tonne Enerpac Jack			
TEST DATE	25-Jan-23	PLATE SIZE (mm)	450 diameter			
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant			
MATERIAL UNDER TEST	Crush		MOISTURE CONTENT	Not Required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
3974	4772	4806	4517	0.00	0.00	0.0
3926	4599	4751	4425	-0.92	10.00	62.9
3541	4442	4510	4164	-3.53	30.00	188.6
3429	4255	4362	4015	-5.02	50.00	314.4
3077	4011	4270	3786	-7.31	70.00	440.1
2751	3681	4022	3485	-10.33	100.00	628.8
2916	4096	4399	3804	-7.14	0.00	0.0



Pressure at 1.25 mm deflexion =	79 kPa
Modulus of subgrade reaction (k) =	63 MPa/m
Equivalent 762 mm plate reaction =	39 MPa/m
Equivalent CBR =	5.6 %

REMARKS

SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 26-Jan-23

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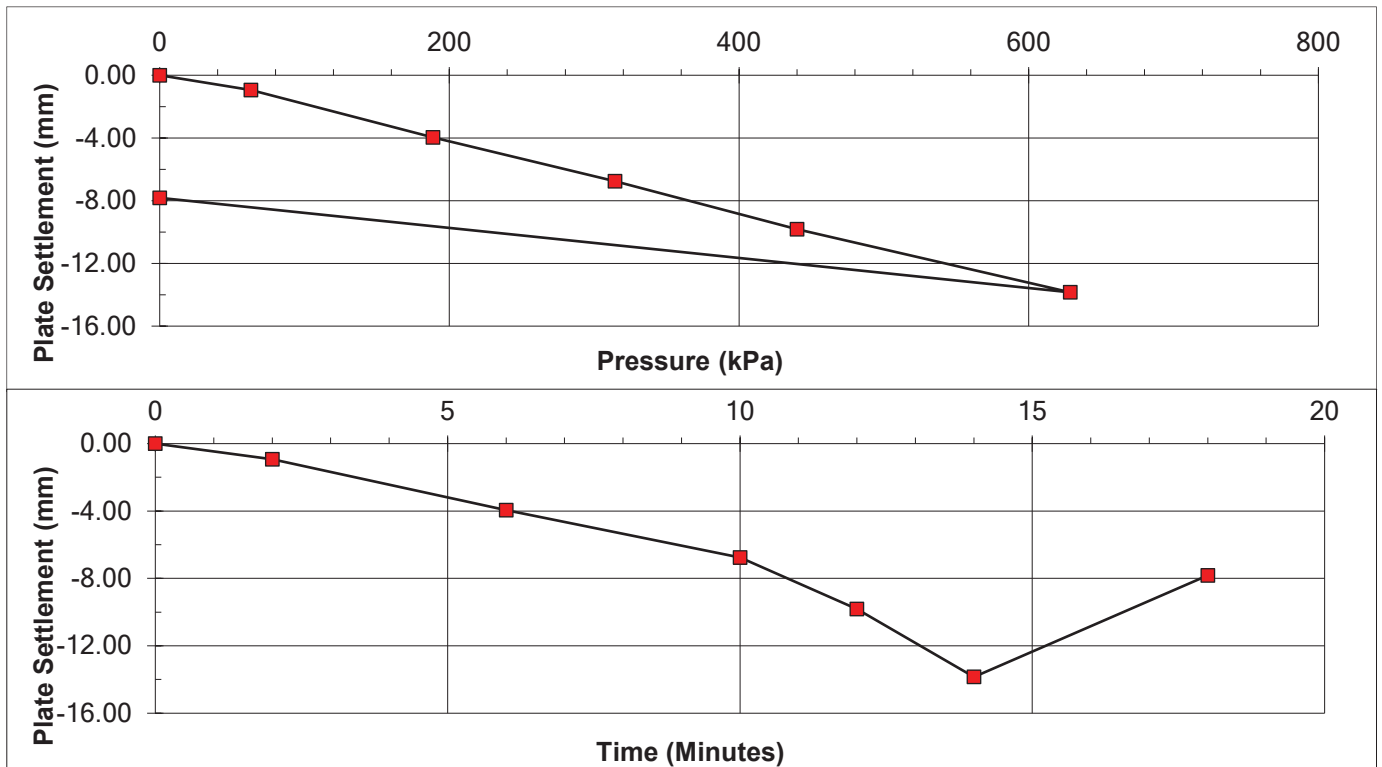
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	LK Remediate Ltd					
SITE	LKR 22 1029 Every Street, Bury					
JOB NUMBER	MRN 4607/4					
TEST LOCATION	Test 04	LOADING DEVICE	20 Tonne Enerpac Jack			
TEST DATE	25-Jan-23	PLATE SIZE (mm)	450 diameter			
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant			
MATERIAL UNDER TEST	Crush		MOISTURE CONTENT	Not Required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4876	4759	4897	4844	0.00	0.00	0.0
4768	4641	4842	4750	-0.94	10.00	62.9
4634	4201	4510	4448	-3.96	30.00	188.6
4338	4024	4144	4169	-6.75	50.00	314.4
4018	3819	3748	3862	-9.82	70.00	440.1
3505	3480	3393	3459	-13.85	100.00	628.8
4116	4096	3974	4062	-7.82	0.00	0.0



Pressure at 1.25 mm deflexion =	76 kPa
Modulus of subgrade reaction (k) =	61 MPa/m
Equivalent 762 mm plate reaction =	38 MPa/m
Equivalent CBR =	5.2 %

REMARKS

SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 26-Jan-23

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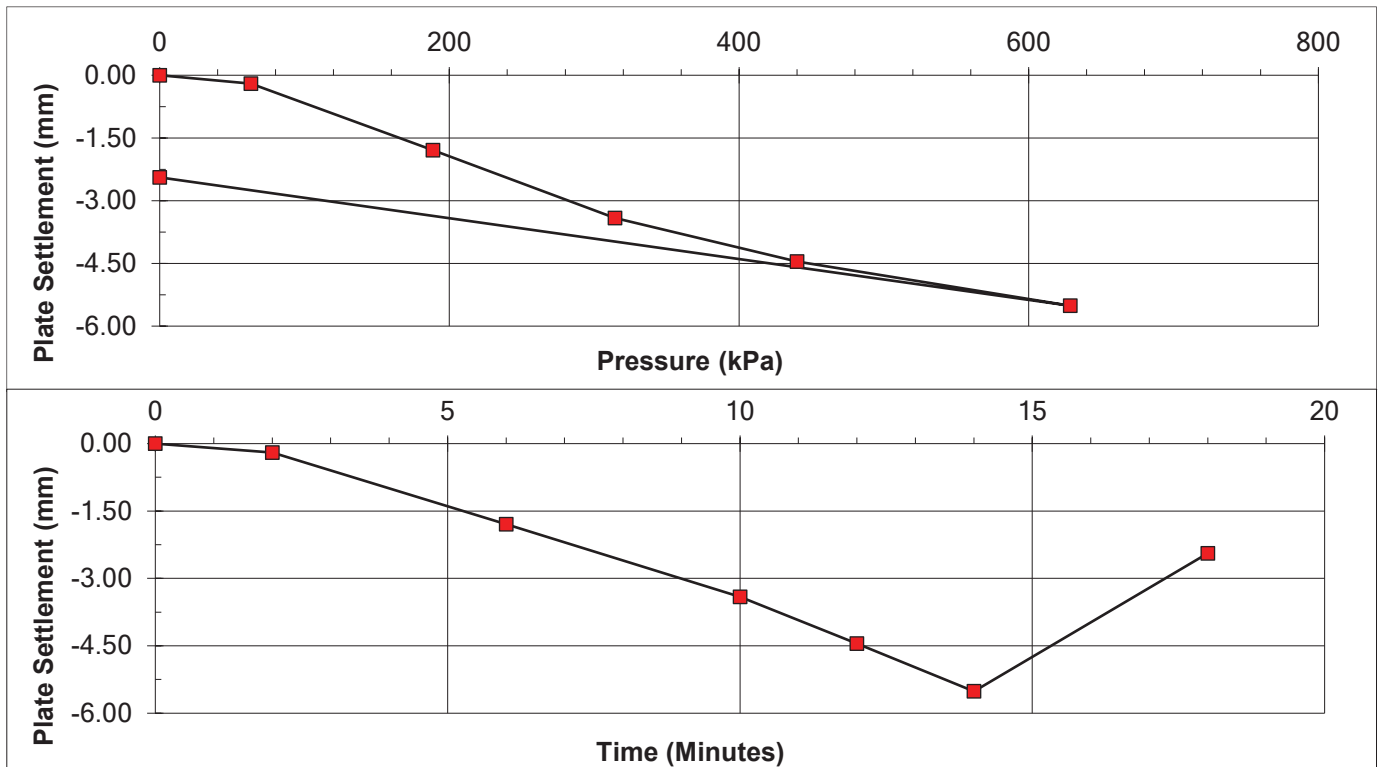
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	LK Remediate Ltd					
SITE	LKR 22 1029 Every Street, Bury					
JOB NUMBER	MRN 4607/4					
TEST LOCATION	Test 05	LOADING DEVICE		20 Tonne Enerpac Jack		
TEST DATE	25-Jan-23	PLATE SIZE (mm)		450 diameter		
TEST DEPTH	Surface	REACTION LOAD USED		Site Plant		
MATERIAL UNDER TEST		Crush		MOISTURE CONTENT	Not Required	

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4529	4904	4411	4615	0.00	0.00	0.0
4518	4868	4398	4595	-0.20	10.00	62.9
4321	4686	4299	4435	-1.79	30.00	188.6
4159	4440	4221	4273	-3.41	50.00	314.4
4009	4372	4127	4169	-4.45	70.00	440.1
3930	4241	4019	4063	-5.51	100.00	628.8
4099	4621	4392	4371	-2.44	0.00	0.0



Pressure at 1.25 mm deflexion =	146 kPa
Modulus of subgrade reaction (k) =	117 MPa/m
Equivalent 762 mm plate reaction =	73 MPa/m
Equivalent CBR =	16.2 %

REMARKS

SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 26-Jan-23

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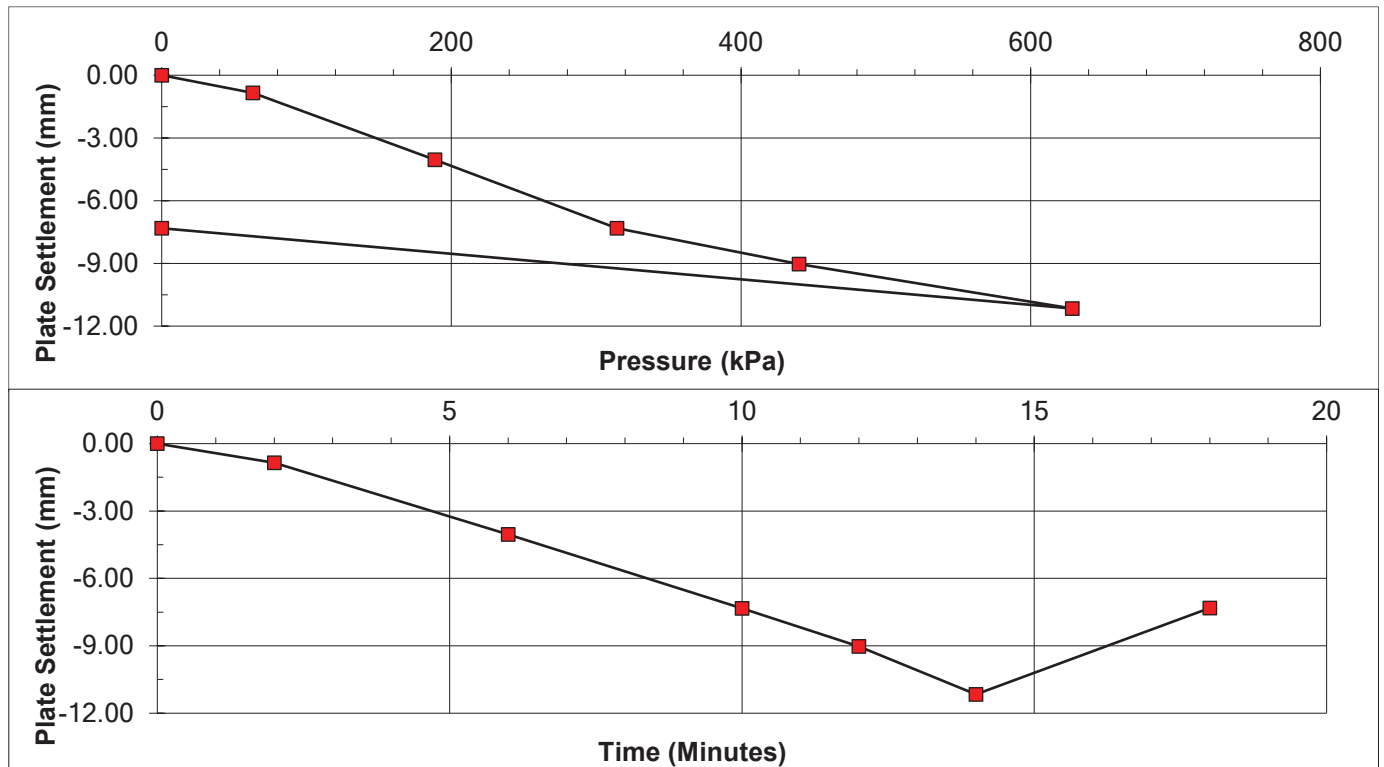
TEST CERTIFICATE

PLATE INCREMENTAL LOAD TEST

BS 1377 : PART 9 : CL 4.1 and IAN 73/06 Rev 1 (2009)

CLIENT	LK Remediate Ltd					
SITE	LKR 22 1029 Every Street, Bury					
JOB NUMBER	MRN 4607/4					
TEST LOCATION	Test 06	LOADING DEVICE	20 Tonne Enerpac Jack			
TEST DATE	25-Jan-23	PLATE SIZE (mm)	450 diameter			
TEST DEPTH	Surface	REACTION LOAD USED	Site Plant			
MATERIAL UNDER TEST	Crush		MOISTURE CONTENT	Not Required		

Dial Gauge 1 (mmx100)	Dial Gauge 2 (mmx100)	Dial Gauge 3 (mmx100)	Mean Gauge (mmx100)	Mean Deflection (mm)	Load (kN)	Pressure (kPa)
4029	4676	4711	4472	0.00	0.00	0.0
3971	4552	4638	4387	-0.85	10.00	62.9
3632	4178	4394	4068	-4.04	30.00	188.6
3292	3930	3996	3739	-7.33	50.00	314.4
3186	3694	3826	3569	-9.03	70.00	440.1
2921	3529	3618	3356	-11.16	100.00	628.8
3190	3916	4116	3741	-7.31	0.00	0.0



Pressure at 1.25 mm deflexion =	79 kPa
Modulus of subgrade reaction (k) =	63 MPa/m
Equivalent 762 mm plate reaction =	39 MPa/m
Equivalent CBR =	5.6 %

REMARKS

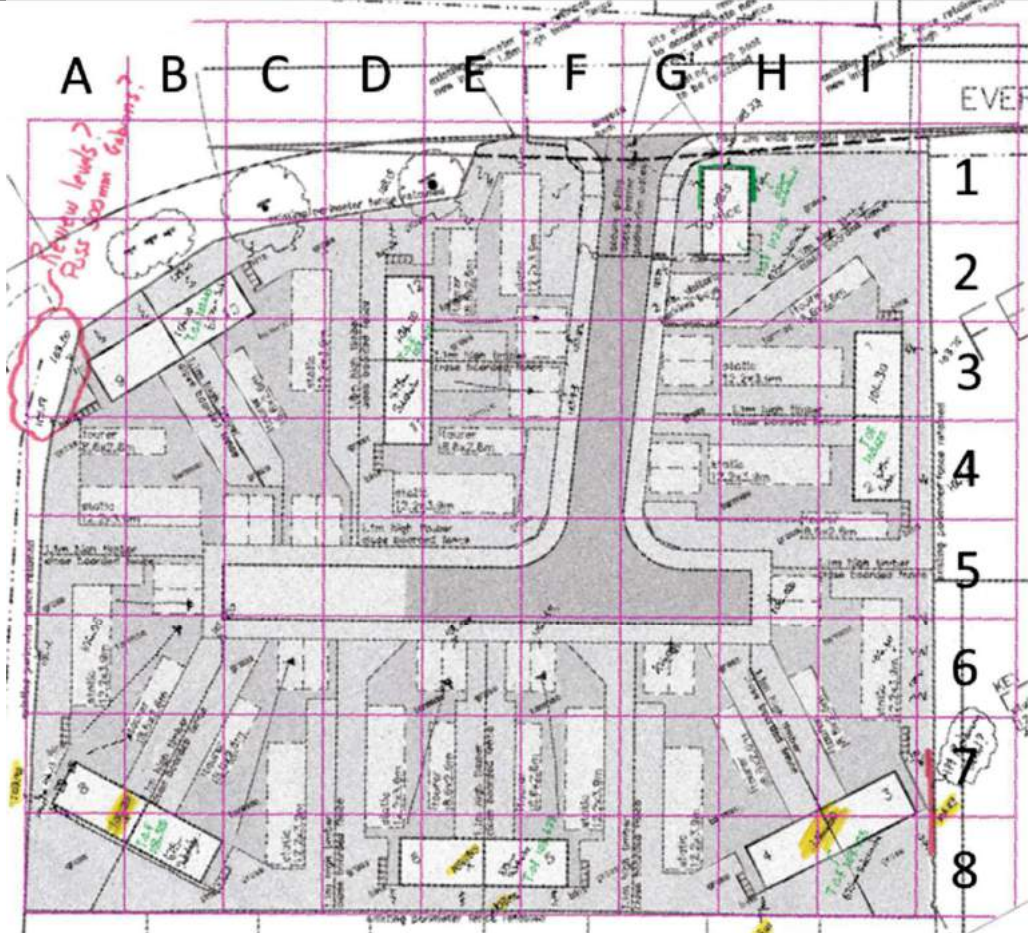
SIGNED

NAME O.P. Davies BA (Hons)
(Laboratory Manager)

DATE 26-Jan-23

Appendix 7: Material Tracking Sheets

Material Tracking Record

Site Name	Job Number	Site Manager
Every Street	LKR221029	Colin Wright
		

Material unique identification	Quantity (m³)	Source location	Type of material	Reason for movement	Date excavated/surveyed	Date sampled	Sample id/ids	Fate/placement	Date of final movement
Wood 1 Wood 2 Wood 3 Wood 4	TBC	H1, I1:8, A8:I8, A3:A8, B2:E2	Wood	Waste generated when riddling made ground	Ongoing until 09/11/22	N/A	N/A	Steptoes Yard	20/10/22 25/10/22 01/11/22 09/11/22
General Waste 1	TBC	Whole Site	Site Generated Genral Waste	Throughout job up to 15/12/22	N/A	N/A	N/A	Steptoes Yard	09/11/22 15/12/22
Non Haz Stockpile 1	300m2	i1:i4	Riddled Non Haz Granular Soils	Surplus Material	22/11/22 - 23/11/22	Previous LK Trial Pit	TBC	Fletcher Bank via Mahers	22/11/22 - 23/11/22
Haz Hotspot 1	8.5m2	d2	Haz Soils - TP503	Haz soils disposal	14/11/22	07/11/22 07/11/22 - Chemtest	N/A TP503a-e	Provectus Soils Management, Maw Green, CW1 5NG	14/11/22
Haz Hotspot 2	17m2	I5	Haz Soils - TP512	Haz soils disposal	14/11/22	07/11/22 07/11/22 - Chemtest	N/A TP512a-e	Provectus Soils Management, Maw Green, CW1 5NG	14/11/22
Non Haz Stockpile 2	800m3	G7:i8	Riddled Non Haz Granular Soils	Surplus Material	22/11/22 - 23/11/22	Previous LK Trial Pit	N/A	Fletcher Bank via Mahers	Fletcher Bank via Mahers
Non Haz Stockpile 3	120m3	A3:a8	Riddled Non Haz Granular Soils	Surplus Material	22/11/22 - 23/11/22	Previous LK Trial Pit	N/A	Fletcher Bank via Mahers	Fletcher Bank via Mahers
Non Haz Stockpile 3	50m3	B2:c2	Riddled Non Haz Granular Soils	Surplus Material	22/11/22 - 23/11/22	Previous LK Trial Pit	N/A	Fletcher Bank via Mahers	Fletcher Bank via Mahers
Oversize Stockpile 1		E3:D5	Oversize	Removing oversize from beneath ground and generating 6f2	Since start	None yet	N/A	Various plots across site	Crushed into roads and plors
Tarmac	45m3	Site wide under former plots	Tarmac Red/Black	Turnover	18/11/22	18/11/22 18/11/22	TM01 TM02	Mixed in with crush at appropriate ration	Remained on site in roads

Vegetation Stockpile 01	102m3	Whole Site	Vegetation from gardens, and scrub land	To stockpile for disposal, cannot be reused on site	From start until 05/12/22	N/A	N/A	Fletcher Bank via Mahers	05/12/22
Metal Skip	TBC	Site Wide	Scrap Metal	Generated from site turnover	Start of job until 08/12/22	N/A	N/A	Steptoes Yard	08/12/22
MOT		Whole Site	MOT from underneath existing hardstanding	Stockpile for reuse	Throughout job	22/12/22	CR05	Placed across whole site under drives, gardens, static bases. Suitable for use as 150mm layer subsoil in gardens	
General Waste 2	TBC	Whole Site	Site Generated Genral Waste	Waste not to be left on site	N/A	N/A	N/A	Steptoes Yard	15/12/22
Western Stockpile Subsoil Council	602m3 (408m3 once stockpile split)	D6:7 to H6:7	Natural Sandy Subsoil	Stockpiled for use as subsoil in garden areas	15/12/22	22/12/22	SS01 - SS07	A5:B5	15/12/22
Eastern Stockpile Subsoil Council	194m3	A5:B5	Natural Sandy Subsoil	Stockpiled for use as subsoil in garden areas	15/12/22	16/01/23 - 18/01/23	SS01 - SS07	H5:I5	18/01/23
Oversize Surplus	16	Site wide	Site generated oversize	Remediation, not cost effective to return crusher	19/12/22 - 12/01/23	N/A	N/A	Steptoes Yard	12/01/23
Haz Hotspot 3	17m2	d2	Haz Soils – TP503 Additional Haz soils and cobble sets	06/01/23	07/11/22 22/12/22 - DETS	N/A TP503a-e	14/11/22	Provectus Soils Management, Maw Green, CW1 5NG	06/01/23
Non Haz Stockpile 4	156m3 179m3	B6:7 to I6:7	Riddled Non Haz Granular Soils	Surplus Material	04/01/23	Previous SI	N/A	Fletcher Bank via Mahers	04/01/23 13/01/23
Coal Tar	25m3	C:4	Soil lumps of coal tar and fragments	Hazardous	14/12/22	02/02/23	CT01	Stockpiled in F1 awaiting decision on destination.	TBC
Non Haz	226m3	Site Wide	Riddled Non Haz Granular Soils	Surplus Material to site	12/01/23 - 16/01/23	N/A	N/A	Fletcher Bank	16/01/23

[illegible]

Appendix 8 : Material Export Summary

DATE	HAULIER	REG #	TICKET #	VEGETATION	NON-HAZ	HAZARDOUS	TIMBER	METAL	GENERAL	OVERSIZE
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DATE	HAULIER	REG #	TICKET #	VEGETATION	NON-HAZ	HAZARDOUS	TIMBER	METAL	GENERAL	OVERSIZE
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[illegible][illegible][illegible][illegible]

	Clywd Transport					1				
	Clywd Transport					1				
	Clywd Transport					1				

[illegible]

[illegible][illegible][illegible]

DATE	HAULIER	REG #	TICKET #	VEGETATION	NON-HAZ	HAZARDOUS	TIMBER	METAL	GENERAL	OVERSIZE
08/12/2022	Step toe's Yard							1		
15/12/2022	Step toe's Yard								1	
19/12/2022	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
20/12/2022	Step toe's Yard									1
	Step toe's Yard									1
04/01/2023	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
06/01/2023	Clwyd Transport					1				
	Clwyd Transport					1				
	Clwyd Transport					1				
	Clwyd Transport					1				
	Clwyd Transport					1				
12/01/2023	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
	Step toe's Yard									1
13/01/2023	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
16/01/2023	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
	Maher				1					
02/02/2023	Maher				1					
	Maher				1					
	Maher				1					

[illegible]

Appendix 9: Generic Assessment Criteria

Category 4 Screening Levels (C4SL)

Substance	Residential (with home- grown produce)	Residential (without home- grown produce)	Allotments	Commercial	Public Open Space 1	Public Open Space 2
Arsenic	37 mg/kg	40 mg/kg	49 mg/kg	640 mg/kg	79 mg/kg	168 mg/kg
Benzene	0.87 mg/kg	3.3 mg/kg	0.18 mg/kg	98 mg/kg	140 mg/kg	230 mg/kg
Benzo(a)pyrene	5 mg/kg	5.3 mg/kg	5.7 mg/kg	76 mg/kg	10 mg/kg	21 mg/kg
Cadmium	26 mg/kg	149 mg/kg	4.9 mg/kg	410 mg/kg	220 mg/kg	880 mg/kg
Chromium VI	21 mg/kg	21 mg/kg	170 mg/kg	49 mg/kg	23 mg/kg	250 mg/kg
Lead	200 mg/kg	310 mg/kg	80 mg/kg	2330 mg/kg	630 mg/kg	1300 mg/kg

Summary Table for the Generic Assessment Criteria for Human Health Risk Assessment Land Quality Management (LQM) S4ULs.

All GAC are based on sandy
loam soils with a pH 7.

		LQM Generic Assessment Criteria (mg/kg) Dry weight soil						
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Metals	Inorganic Arsenic	6%	37	40	43	640	79	170
	Beryllium	6%	1.7	1.7	35	12	2.2	63
	Boron	6%	290	11,000	45	240,000	21,000	46,000
	Cadmium	6%	11	85	1.9	190	120	532
	Chromium (III)	6%	910	910	18,000	8,600	1,500	33,000
	Chromium (VI)	6%	6.0	6.0	1.8	33	7.7	220
	Copper	6%	2,400	7,100	520	68,000	12,000	44,000
	Elemental Mercury	6%	1.2	1.2	21	58 (25.8) ^{vap}	16	30 (25.8) ^{vap}
	Inorganic Mercury	6%	40	56	19	1,100	120	240
	Methylmercury	6%	11	15	6.0	320	40	68
	Nickel	6%	180	180	230	980	230	3,400
	Selenium	6%	250	430	88	12,000	1,100	1,800
	Vanadium	6%	410	1,200	91	9,000	2,000	5,000
	Zinc	6%	3,700	40,000	620	730,000	81,000	170,000
BTEX Compounds	Benzene	1%	0.087	0.38	0.017	27	72	90
		2.5%	0.17	0.70	0.034	47	72	100
		6%	0.37	1.4	0.075	90	73	110
	Toluene	1%	130	880 (869) ^{vap}	22	56,000 (869) ^{vap}	56,000	87,000 (869) ^{vap}
		2.5%	290	1,900	51	110,000 (1,920) ^{vap}	56,000	95,000 (1,920) ^{vap}
		6%	660	3,900	120	180,000 (4,360) ^{vap}	56,000	100,000 (4,360) ^{vap}
	Ethylbenzene	1%	47	83	16	5,700 (518) ^{vap}	24,000	17,000 (518) ^{vap}
		2.5%	110	190	39	13,000 (1,220) ^{vap}	24,000	22,000 (1,220) ^{vap}
		6%	260	440	91	27,000 (2,840) ^{vap}	25,000	27,000 (2,840) ^{vap}
	o-xylene	1%	60	88	28	6,600 (478) ^{sol}	41,000	17,000 (478) ^{sol}
		2.5%	140	210	67	15,000 (1,120) ^{sol}	42,000	24,000 (1,120) ^{sol}
		6%	330	480	160	33,000 (2,620) ^{sol}	43,000	33,000 (2,620) ^{sol}
	m-xylene	1%	59	82	31	6,200 (625) ^{vap}	41,000	17,000 (625) ^{vap}
		2.5%	140	190	74	14,000 (1,470) ^{vap}	42,000	24,000 (1,470) ^{vap}
		6%	320	450	170	31,000 (3,460) ^{vap}	43,000	32,000 (3,460) ^{vap}
	p-xylene	1%	56	79	29	5,900 (576) ^{sol}	41,000	17,000 (576) ^{sol}
		2.5%	130	180	69	14,000 (1,350) ^{sol}	42,000	23,000 (1,350) ^{sol}
		6%	310	430	160	30,000 (3,170) ^{sol}	43,000	31,000 (3,170) ^{sol}

NOTES

^{sol/vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

f = oral, dermal and inhalation exposures compared to oral HCV.

All GAC are based on sandy loam soils with a pH 7.

All GAC are based on sandy loam soils with a pH 7.			LQM Generic Assessment Criteria (mg/kg) Dry weight soil					
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthene	1%	210	3,000 (57.1) ^{sol}	34	84,000 (57.0) ^{sol}	15,000	29,000
		2.5%	510	4,700 (141) ^{sol}	85	97,000 (141) ^{sol}	15,000	30,000
		6%	1,100	6,000 (336) ^{sol}	200	100,000	15,000	30,000
	Acenaphthylene	1%	170	2,900 (86.1) ^{sol}	28	83,000 (86.1) ^{sol}	15,000	29,000
		2.5%	420	4,600 (212) ^{sol}	69	97,000 (212) ^{sol}	15,000	30,000
		6%	920	6,000 (506) ^{sol}	160	100,000	15,000	30,000
	Anthracene	1%	2,400	31,000 (1.17) ^{vap}	380	520,000	74,000	150,000
		2.5%	5,400	35,000	950	540,000	74,000	150,000
		6%	11,000	37,000	2,200	540,000	74,000	150,000
	Benz(a)anthracene	1%	7.2	11	2.9	170	29	49
		2.5%	11	14	6.5	170	29	56
		6%	13	15	13	180	29	62
	Benzo(a)pyrene (only)	1%	2.2	3.2	0.97	35	5.7	11
		2.5%	2.7	3.2	2.0	35	5.7	12
		6%	3.0	3.2	3.5	36	5.7	13
	Benzo(b)fluoranthene	1%	2.6	3.9	0.99	44	7.1	13
		2.5%	3.3	4.0	2.1	44	7.2	15
		6%	3.7	4.0	3.9	45	7.2	16
	Benzo(ghi)perylene	1%	320	360	290	3,900	640	1,400
		2.5%	340	360	470	4,000	640	1,500
		6%	350	360	640	4,000	640	1,600
	Benzo(k)fluoranthene	1%	77	110	37	1,200	190	370
		2.5%	93	110	75	1,200	190	410
		6%	100	110	130	1,200	190	440
	Chrysene	1%	15	30	4.1	350	57	93
		2.5%	22	31	9.4	350	57	110
		6%	27	32	19	350	57	120
	Dibenzo(ah)anthracene	1%	0.24	0.31	0.14	3.5	0.57	1.1
		2.5%	0.28	0.32	0.27	3.6	0.58	1.3
		6%	0.3	0.32	0.43	3.6	0.58	1.4
	Fluoranthene	1%	280	1,500	52	23,000	3,100	6,300
		2.5%	560	1,600	130	23,000	3,100	6,300
		6%	890	1,600	290	23,000	3,100	6,400
	Fluorene	1%	170	2,800 (36.0) ^{sol}	27	63,000 (30.9) ^{sol}	9,900	20,000
		2.5%	400	3,800 (76.5) ^{sol}	67	68,000	9,900	20,000
		6%	860	4,500 (183) ^{sol}	160	71,000	9,900	20,000
	Indeno(123-cd)pyrene	1%	27	45	9.5	500	82	150
		2.5%	36	46	21	510	82	170
		6%	41	46	39	510	82	180
	Naphthalene	1%	2.3 ^f	2.3 ^f	4.1 ^f	190 ^f (76.4) ^{sol}	4,900 ^f	1,200 ^f (76.4) ^{sol}
		2.5%	5.6 ^f	5.6 ^f	10 ^f	460 ^f (183) ^{sol}	4,900 ^f	1,900 ^f (183) ^{sol}
		6%	13 ^f	13 ^f	24 ^f	1,100 ^f (432) ^{sol}	4,900 ^f	3,000
	Phenanthrene	1%	95	1,300 (36.0) ^{sol}	15	22,000	3,100	6,200
		2.5%	220	1,500	38	22,000	3,100	6,200
		6%	440	1,500	90	22,000	3,100	6,300
	Pyrene	1%	620	3,700	110	54,000	7,400	15,000
		2.5%	1,200	3,800	270	54,000	7,400	15,000
		6%	2,000	3,800	620	54,000	7,400	15,000
Coal Tar (B(a)P as surrogate marker)	1%	0.79	1.2	0.32	15	2.2	4.4	
	2.5%	0.98	1.2	0.67	15	2.2	4.7	
	6%	1.1	1.2	1.2	15	2.2	4.8	

NOTES

^{sol} / ^{vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

^f = naphthalene is based on comparison of inhalation exposure with TDI_{inhal} for localised effect.

All GAC are based on sandy loam soils with a pH 7.

LQM Generic Assessment Criteria (mg/kg) Dry weight soil

Contaminant	SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Aliphatic							
EC 5-6	1%	42	42	730	3,200 (304) ^{sol}	570,000(304) ^{sol}	95,000 (304) ^{sol}
EC>6-8	1%	100	100	2,300	7,800 (144) ^{sol}	600,000	150,000 (144) ^{sol}
EC>8-10	1%	27	27	320	2,000 (78) ^{sol}	13,000	14,000 (78) ^{vap}
EC>10-12	1%	130 (48) ^{vap}	130 (48) ^{vap}	2,200	9,700 (48) ^{sol}	13,000	21,000 (48) ^{vap}
EC>12-16	1%	1,100 (24) ^{sol}	1,100 (24) ^{sol}	11,000	59,000 (24) ^{sol}	13,000	25,000 (24) ^{sol}
EC>16-35	1%	65,000 (8.48) ^{f, sol}	65,000 (8.48) ^{f, sol}	260,000 ^f	160,000 ^f	250,000 ^f	450,000 ^f
EC>35-44	1%	65,000 (8.48) ^{f, sol}	65,000 (8.48) ^{f, sol}	260,000 ^f	160,000 ^f	250,000 ^f	450,000 ^f
Aliphatic							
EC 5-6	2.5%	78	78	1,700	5,900 (558) ^{sol}	590,000	130,000 (558) ^{sol}
EC>6-8	2.5%	230	230	5,600	17,000 (322) ^{sol}	610,000	220,000 (322) ^{sol}
EC>8-10	2.5%	65	65	770	4,800 (190) ^{vap}	13,000	18,000 (190) ^{vap}
EC>10-12	2.5%	330 (118) ^{vap}	330 (118) ^{vap}	4,400	23,000 (118) ^{vap}	13,000	23,000 (118) ^{vap}
EC>12-16	2.5%	2,400 (59) ^{sol}	2,400 (59) ^{sol}	13,000	82,000 (59) ^{sol}	13,000	25,000 (59) ^{sol}
EC>16-35	2.5%	92,000 (21) ^{f, sol}	92,000 (21) ^{f, sol}	270,000 ^f	1,700,000 ^f	250,000 ^f	480,000 ^f
EC>35-44	2.5%	92,000 (21) ^{f, sol}	92,000 (21) ^{f, sol}	270,000 ^f	1,700,000 ^f	250,000 ^f	480,000 ^f
Aliphatic							
EC 5-6	6%	160	160	3,900	12,000 (1,150) ^{sol}	600,000	180,000 (1,150) ^{sol}
EC>6-8	6%	530	530	13,000	40,000 (736) ^{sol}	620,000	320,000 (736) ^{sol}
EC>8-10	6%	150	150	1,700	11,000 (451) ^{vap}	13,000	21,000 (451) ^{vap}
EC>10-12	6%	760 (283) ^{vap}	760 (283) ^{vap}	7,300	47,000 (283) ^{vap}	13,000	24,000 (283) ^{vap}
EC>12-16	6%	4,300 (142) ^{sol}	4,400 (142) ^{sol}	13,000	90,000 (142) ^{sol}	13,000	26,000 (142) ^{sol}
EC>16-35	6%	110,000 ^f	110,000 ^f	270,000 ^f	1,800,000 ^f	250,000 ^f	490,000 ^f
EC>35-44	6%	110,000 ^f	110,000 ^f	270,000 ^f	1,800,000 ^f	250,000 ^f	490,000 ^f
Aromatic							
EC5-7(benzene as non-threshold)	1%	70	370	13	26,000 (1,220) ^{sol}	56,000	76,000 (1,220) ^{sol}
EC>7-8(toluene)	1%	130	860	22	56,000 (869) ^{vap}	56,000	87,000 (869) ^{vap}
EC>8-10	1%	34	47	8.6	3,500 (613) ^{vap}	5,000	7,200 (613) ^{vap}
EC>10-12	1%	74	250	13	16,000 (364) ^{sol}	5,000	9,200 (364) ^{sol}
EC>12-16	1%	140	1,800	23	36,000 (169) ^{sol}	5,100	10,000
EC>16-21	1%	260 ^f	1,900 ^f	46 ^f	28,000 ^f	3,800 ^f	7,600 ^f
EC>21-35	1%	1,100 ^f	1,900 ^f	370 ^f	28,000 ^f	3,800 ^f	7,800 ^f
EC>35-44	1%	1,100 ^f	1,900 ^f	370 ^f	28,000 ^f	3,800 ^f	7,800 ^f
Aromatic							
EC5-7(benzene as non-threshold)	2.5%	140	690	27	46,000 (2,260) ^{sol}	56,000	84,000 (2,260) ^{sol}
EC>7-8(toluene)	2.5%	290	1,800	51	110,000 (1,920) ^{sol}	56,000	95,000 (1,920) ^{sol}
EC>8-10	2.5%	83	110	21	8,100 (1,500) ^{vap}	5,000	8,500 (1,500) ^{vap}
EC>10-12	2.5%	180	590	31	28,000 (899) ^{sol}	5,000	9,700 (899) ^{sol}
EC>12-16	2.5%	330	2,300 (419) ^{sol}	57	37,000	5,100	10,000
EC>16-21	2.5%	540 ^f	1,900 ^f	110 ^f	28,000 ^f	3,800 ^f	7,700 ^f
EC>21-35	2.5%	1,500 ^f	1,900 ^f	820 ^f	28,000 ^f	3,800 ^f	7,800 ^f
EC>35-44	2.5%	1,500 ^f	1,900 ^f	820 ^f	28,000 ^f	3,800 ^f	7,800 ^f
Aromatic							
EC5-7(benzene as non-threshold)	6%	300	1,400	57	86,000 (4,710) ^{sol}	56,000	92,000 (4,710) ^{sol}
EC>7-8(toluene)	6%	660	3,900	120	180,000 (4,360) ^{vap}	56,000	100,000 (4,360) ^{vap}
EC>8-10	6%	190	270	51	17,000 (3,580) ^{vap}	5,000	9,300 (3,580) ^{vap}
EC>10-12	6%	380	1,200	4	34,000 (2,150) ^{sol}	5,000	10,000
EC>12-16	6%	660	2,500	130	38,000	5,100	10,000
EC>16-21	6%	930 ^f	1,900 ^f	260 ^f	28,000 ^f	3,800 ^f	7,800 ^f
EC>21-35	6%	1,700 ^f	1,900 ^f	1,600 ^f	28,000 ^f	3,800 ^f	7,900 ^f
EC>35-44	6%	1,700 ^f	1,900 ^f	1,600 ^f	28,000 ^f	3,800 ^f	7,900 ^f
Aliphatic	1%	1,600 ^f	1,900 ^f	1,200 ^f	28,000 ^f	3,800 ^f	7,800 ^f
+Aromatic	2.5%	1,800 ^f	1,900 ^f	2,100 ^f	28,000 ^f	3,800 ^f	7,800 ^f
>EC44	6%	1,900 ^f	1,900 ^f	3,000 ^f	28,000 ^f	3,800 ^f	7,900 ^f

NOTES

Sol / vap = solubility / vapour limit (potentially use if free product identified, although highly conservative).

f = oral, dermal and inhalation exposures compared to oral HCV.

All GAC are based on sandy loam soils with a pH 7.

		LQM Generic Assessment Criteria (mg/kg) Dry weight soil						
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Chloalkanes and Alkenes & Explosives	1,2 Dichloroethane (DCA)	1%	7.1E-03	9.2E-03	4.6E-03	0.67	29	21
		2.5%	1.1E-02	1.3E-02	8.3E-03	0.97	29	24
		6%	1.9E-02	2.3E-02	1.6E-02	1.7	29	28
	1,1,1 Trichloroethane (TCA)	1%	8.8	9.0	48	660	140,000	57,000 (1,425) ^{vap}
		2.5%	18	18	110	1,300	140,000	76,000 (2,915) ^{vap}
		6%	39	40	240	3,000	140,000	100,000 (6,392) ^{vap}
	1,1,2,2-Tetrachloroethanes (PCA)	1%	1.6	3.9	0.41	270	1,400	1,800
		2.5%	3.4	8.0	0.89	550	1,400	2,100
		6%	7.5	17	2.0	1,100	1,400	2,300
	1,1,1,2-Tetrachloroethanes (PCA)	1%	1.2	1.5	0.79	110	1,400	1,500
		2.5%	2.8	3.5	1.9	250	1,400	1,800
		6%	6.4	8.2	4.4	560	1,400	2,100
	Tetrachloroethene (PCE)	1%	0.18	0.18	0.65	19	1,400	810 (424) ^{sol}
		2.5%	0.39	0.40	1.5	42	1,400	1,100 (951) ^{sol}
		6%	0.90	0.92	3.6	95	1,400	1,500
	Tetrachloromethane (carbon tetrachloride)	1%	2.6E-02	2.6E-02	0.45	2.9	890	190
		2.5%	5.6E-02	5.6E-02	1.0	6.3	920	270
		6%	0.13	0.13	2.4	14	950	400
	Trichloroethene (TCE)	1%	1.6E-02	1.7E-02	4.1E-02	1.2	120	70
		2.5%	3.4E-02	3.6E-02	9.1E-02	2.6	120	91
		6%	7.5E-02	8.0E-02	0.21	5.7	120	120
	Trichloromethane (chloroform)	1%	0.91	1.2	0.42	99	2,500	2,600
		2.5%	1.7	2.1	0.83	170	2,500	2,800
		6%	3.4	4.2	1.7	350	2,500	3,100
	Chloroethene (vinyl chloride)	1%	6.4E-04	7.7E-04	5.5E-04	5.9E-02	3.5	4.8
		2.5%	8.7E-04	1.0E-03	1.0E-03	7.7E-02	3.5	5.0
		6%	1.4E-03	1.5E-03	1.8E-03	0.12	3.5	5.4
	2,4,6-Trinitrotoluene (TNT)	1%	1.6	65	0.24	1,000	130	260
		2.5%	3.7	66	0.58	1,000	130	270
		6%	8.1	66	1.4	1,000	130	270
	RDX	1%	120	13,000	17	210,000	26,000	49,000 (18.7) ^{sol}
		2.5%	250	13,000	38	210,000	26,000	51,000
		6%	540	13,000	85	210,000	27,000	53,000
	HMX	1%	5.7	6,700	0.86	110,000	13,000	23,000 (0.35) ^{vap}
		2.5%	13	6,700	1.9	110,000	13,000	23,000 (0.39) ^{vap}
		6%	26	6,700	3.9	110,000	13,000	24,000 (0.48) ^{vap}
Pesticides	Aldrin	1%	5.7	7.3	3.2	170	18	30
		2.5%	6.6	7.4	6.1	170	18	31
		6%	7.1	7.5	9.8	170	18	31
	Dieldrin	1%	0.97	7.0	0.17	170	18	30
		2.5%	2.0	7.3	0.41	170	18	30
		6%	3.5	7.4	0.96	170	18	31
	Atrazine	1%	3.3	610	0.5	9,300	1,200	2,300
		2.5%	7.8	620	1.2	9,400	1,200	2,400
		6%	17.4	620	2.7	9,400	1,200	2,400
	Dichlorvos	1%	3.2E-02	6.4	4.9E-03	140	16	26
		2.5%	6.6E-02	6.5	1.0E-02	140	16	26
		6%	0.14	6.6	2.2E-02	140	16	27
	Endosulfans (2 isomers)	1%	7.4	160 (3.0E-03) ^{vap}	1.2	5,600 (3.0E-03) ^{vap}	1,200	2,300
		2.5%	18	280 (7.0E-03) ^{vap}	2.9	7,400 (7.0E-03) ^{vap}	1,200	2,400
		6%	41	410 (1.6E-02) ^{vap}	6.8	8,400 (1.6E-02) ^{vap}	1,200	2,500
	Hexachlorocyclohexane (3 isomers), inc Lindane	1%	8.5E-02	3.7	1.3E-02	65	8.1	15
		2.5%	0.2	3.8	3.2E-02	65	8.1	15
		6%	0.46	3.8	7.7E-02	65	8.1	16

NOTES

^{sol} / ^{vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

All GAC are based on
sandy loam soils with a pH
7.

		LQM Generic Assessment Criteria (mg/kg) Dry weight soil						
Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}
Chlorobenzenes	Chlorobenzene	1%	0.46	0.46	5.9	56	11,000	1,300 (675) ^{sol}
		2.5%	1.0	1.0	14	130	13,000	2,000 (1,520) ^{sol}
		6%	2.4	2.4	32	290	14,000	2,900
	Dichlorobenzenes (3 isomers)	1%	23	24	94	2,000 (571) ^{sol}	90,000	24,000 (571) ^{sol}
		2.5%	55	57	230	4,800 (1,370) ^{sol}	95,000	36,000 (1,370) ^{sol}
		6%	130	130	540	11,000 (3,240) ^{sol}	98,000	51,000 (3,270) ^{sol}
	Trichlorobenzenes (3 isomers)	1%	2.6	2.6	55	220	15,000	1,700 (318) ^{vap}
		2.5%	6.4	6.4	140	530	17,000	2,600 (786) ^{vap}
		6%	15	15	320	1,300	19,000	4,000 (1,880) ^{vap}
	Tetrachlorobenzenes (3 isomers)	1%	0.66	0.75	0.38	49 (39.4) ^{vap}	78	110 (39) ^{vap}
		2.5%	1.6	1.9	0.90	120 (98.1) ^{vap}	79	120
		6%	3.7	4.3	2.2	240 (235) ^{vap}	79	130
	Pentachlorobenzene	1%	5.8	19	1.2	640 (43.0) ^{sol}	100	190
		2.5%	12	30	3.1	770 (107) ^{sol}	100	190
		6%	22	38	7.0	830	100	190
	Hexachlorobenzene	1%	1.8 (0.20) ^{vap}	4.1 (0.20) ^{vap}	0.47	110 (0.20) ^{vap}	16	30
		2.5%	3.3 (0.50) ^{vap}	5.7 (0.50) ^{vap}	1.1	120	16	30
		6%	4.9	6.7 (1.2) ^{vap}	2.5	120	16	30
Chlorophenol	Chlorophenols (4 congeners)	1%	0.87 ^g	94	0.13 ^g	3,500	620	1,100
		2.5%	2.0	150	0.30	4,000	620	1,100
		6%	4.5	210	0.70	4,300	620	1,100
	Pentachlorophenol	1%	0.22	27 (16.4) ^{vap}	3.0E-02	400	60	110
		2.5%	0.52	29	8.0E-02	400	60	120
		6%	1.2	31	0.19	400	60	120
Others	Carbon Disulphide	1%	0.14	0.14	4.8	11	11,000	1,300
		2.5%	0.29	0.29	10	22	11,000	1,900
		6%	0.62	0.62	23	47	11,000	2,700
	Hexachlorobutadiene	1%	0.29	0.32	0.25	31	25	48
		2.5%	0.7	0.78	0.61	66	25	50
		6%	1.6	1.8	1.4	120	25	51
	Phenol	1%	280	750	66	760 ^{dir} (31,000)	760 ^{dir} (11,000)	760 ^{dir} (8,600)
		2.5%	550	1,300	140	1,500 ^{dir} (35,000)	1,500 ^{dir} (11,000)	1,500 ^{dir} (9,700)
		6%	1,100	2,300	280	3,200 ^{dir} (37,000)	3,200 ^{dir} (11,000)	3,200 ^{dir} (11,000)

NOTES

^{sol} / ^{vap} = solubility / vapour limit (potentially use if free product identified, although highly conservative).

^{dir} = S4uls based on threshold protective of direct skin contact with phenol (brackets long term exposure for illustration purposes).

^g = derived based on 2,3,4,6-tetrachlorophenol.



SCREENING SCENARIO	Residential with plant uptake (1% SOM)	Client Sample ID.:	SS01	SS02	SS03	SS04	SS05	SS06	
		Strata:							
		Top Depth (m):	Stockpile	Stockpile	Stockpile	Stockpile	Stockpile	Stockpile	
		Bottom Depth (m):							
	Determinand	Units	GAC						
ASBESTOS	ACM Type	mg/kg		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
	Asbestos Identification	mg/kg		n/a	n/a	n/a	n/a	n/a	n/a
	Moisture	mg/kg		12.1	10.5	14.6	14.6	12.7	12.1
	Soil Colour	mg/kg							
	Other Material	mg/kg							
	Soil Texture	mg/kg		Brown sandy clay with stones	Brown sandy clay with stones	Brown sandy clay with stones	Brown sandy clay	Brown sandy clay with stones	Brown sandy clay
	Chromatogram (TPH)	mg/kg							
	pH	mg/kg		8.0	7.9	7.8	7.7	7.5	7.5
	Boron (Hot Water Soluble)	mg/kg	290.0						
	Sulphate (2:1 Water Soluble) as SO4	g/l		0.02	0.03	0.01	0.02	0.01	0.01
	Cyanide (Free)	mg/kg	26.0						
	Cyanide (Total)	mg/kg							
	Arsenic	mg/kg	37.0	4	4	5	5	4	4
	Cadmium	mg/kg	22.0	< 0.2	< 0.2	0.2	< 0.2	0.2	0.2
	Chromium	mg/kg	910.0	10	9	11	12	10	12
	Copper	mg/kg	2400.0	16	15	19	19	16	16
	Mercury	mg/kg	40.0	< 1	< 1	< 1	< 1	< 1	< 1
	Nickel	mg/kg	180.0	13	12	15	16	14	17
	Lead	mg/kg	200.0	14	12	15	16	14	17
	Selenium	mg/kg	250.0	< 3	< 3	< 3	< 3	< 3	< 3
	Vanadium	mg/kg	410.0	12	11	14	14	12	13
	Zinc	mg/kg	3700.0	48	45	57	52	49	50
	Chromium (Hexavalent)	mg/kg	21.0	< 2	< 2	< 2	< 2	< 2	< 2
	Naphthalene	mg/kg	2.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Acenaphthylene	mg/kg	170.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Acenaphthene	mg/kg	210.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Fluorene	mg/kg	170.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Phenanthrene	mg/kg	95.0	0.18	< 0.1	0.14	< 0.1	< 0.1	< 0.1
	Anthracene	mg/kg	2400.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Fluoranthene	mg/kg	280.0	0.24	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Pyrene	mg/kg	620.0	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	Benzo[a]anthracene	mg/kg	7.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Chrysene	mg/kg	15.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Benzo[b]fluoranthene	mg/kg	2.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Benzo[k]fluoranthene	mg/kg	77.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Benzo[a]pyrene	mg/kg	5.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Indeno(1,2,3-c,d)Pyrene	mg/kg	27.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Dibenz(a,h)Anthracene	mg/kg	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Benzo[g,h,i]perylene	mg/kg	320.0	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 1.6
	Total Of 16 PAH's	mg/kg		< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

SCREENING SCENARIO	Residential without plant uptake (2.5% SOM)	Client Sample ID.:		CR05	CR06	CR07	CR08
		Strata:					
		Top Depth (m):					
		Bottom Depth (m):					
	Determinand	Units	GAC				
ASBESTOS	ACM Type	mg/kg		Not Detected	Not detected	Not detected	Chrysotile
SOIL PROPERTIES	Asbestos Identification	mg/kg		n/a	n/a	n/a	Fibres <0.001
	Moisture	%		5.2	5.1	8.2	9.5
	Soil Colour	mg/kg					
	Other Material	mg/kg					
	Soil Texture	mg/kg					
	Chromatogram (TPH)	mg/kg					
NON_METALS	pH	mg/kg		8.7	9.3	10.4	10.9
	Boron (Hot Water Soluble)	mg/kg	11000.0	2.8	< 1	< 1	< 1
	Sulphate (2:1 Water Soluble) as SO4	g/l		0.89	0.15	0.3	0.54
	Cyanide (Free)	mg/kg		< 1	< 1	< 1	< 1
METALS	Cyanide (Total)	mg/kg		3	< 1	3	< 1
	Arsenic	mg/kg	40.0	5	7	9	9
	Cadmium	mg/kg	150.0	0.3	0.5	0.4	0.7
	Chromium	mg/kg	910.0	14	12	16	16
	Copper	mg/kg	7100.0	16	27	40	162
	Mercury	mg/kg	56.0	< 1	< 1	< 1	< 1
	Nickel	mg/kg	180.0	21	11	15	15
	Lead	mg/kg	310.0	15	30	62	81
	Selenium	mg/kg	430.0	< 3	< 3	< 3	< 3
	Vanadium	mg/kg	1200.0	14	20	20	17
	Zinc	mg/kg	40000.0	57	59	85	121
	Chromium (Hexavalent)	mg/kg	21.0	< 2	< 2	< 2	< 2
	Organic Matter	mg/l		1.2	10.7	5.7	4.6
	Fuel Type	mg/kg					
TPH	Aliphatic TPH >C5-C6	mg/kg	78.0	< 0.01	< 0.01	< 0.01	< 0.01
	Aliphatic TPH >C6-C8	mg/kg	230.0	< 0.05	< 0.05	< 0.05	< 0.05
	Aliphatic TPH >C8-C10	mg/kg	65.0	< 2	< 2	< 2	< 2
	Aliphatic TPH >C10-C12	mg/kg	330.0	< 2	< 2	< 2	< 2
	Aliphatic TPH >C12-C16	mg/kg	2400.0	< 3	< 3	< 3	< 3
	Aliphatic TPH >C16-C21	mg/kg	92000.0	< 10	70	< 10	60
	Aliphatic TPH >C21-C35	mg/kg	92000.0	< 10	70	< 10	59
	Aliphatic TPH >C35-C44	mg/kg	92000.0	< 10	48	< 10	27
	Total Aliphatic Hydrocarbons	mg/kg		< 30	188	< 30	146
	Aromatic TPH >C5-C7	mg/kg	690.0	< 0.01	< 0.01	< 0.01	< 0.01
	Aromatic TPH >C7-C8	mg/kg	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	Aromatic TPH >C8-C10	mg/kg	110.0	< 2	< 2	< 2	< 2
	Aromatic TPH >C10-C12	mg/kg	590.0	< 2	7	6	5
	Aromatic TPH >C12-C16	mg/kg	2300.0	11	46	38	34
	Aromatic TPH >C16-C21	mg/kg	1900.0	36	120	104	89
	Aromatic TPH >C21-C35	mg/kg	1900.0	54	392	141	188
	Aromatic TPH >C35-C44	mg/kg	1900.0	< 10	141	15	17
	Total Aromatic Hydrocarbons	mg/kg		101	705	304	332
	Total Petroleum Hydrocarbons	mg/kg		101	893	304	479
PAHs	Naphthalene	mg/kg	5.6	0.73	2.91	3.5	3.88
	Acenaphthylene	mg/kg	4600.0	< 0.1	< 0.1	< 0.1	< 0.1
	Acenaphthene	mg/kg	4700.0	1.68	6.1	6.46	6.82
	Fluorene	mg/kg	3800.0	1.23	4.33	4.97	4.96
	Phenanthrene	mg/kg	1500.0	8.66	28.1	33.8	33.8
	Anthracene	mg/kg	35000.0	2.01	6.27	7.63	7.71
	Fluoranthene	mg/kg	1600.0	9.22	22.8	30.5	29.9
	Pyrene	mg/kg	3800.0	7.9	19	25.1	24.6
	Benzo[a]anthracene	mg/kg	14.0	3.49	7.26	9.35	9.41
	Chrysene	mg/kg	31.0	2.65	5.91	7.69	7.9
	Benzo[b]fluoranthene	mg/kg	4.0	2.49	6.12	8.25	8.38
	Benzo[k]fluoranthene	mg/kg	110.0	1.02	2.74	2.79	3.5
	Benzo[a]pyrene	mg/kg	5.3	2.48	6.47	7.68	8.49
	Indeno[1,2,3-c,d]Pyrene	mg/kg	46.0	0.99	2.08	3.01	2.83
	Dibenz[a,h]Anthracene	mg/kg	0.3	0.19	0.42	0.57	0.55
	Benzo[g,h,i]perylene	mg/kg	360.0	0.8	1.49	2.34	2.12
	Total Of 16 PAH's	mg/kg		45.6	122	154	155
BTEX	Benzene	µg/kg	700.0	< 2	< 2	< 2	3
	Toluene	µg/kg	1900000.0	< 5	< 5	< 5	< 5
	Ethylbenzene	µg/kg	190000.0	< 2	< 2	5	6
	m & p-Xylene	µg/kg	180000.0	3	< 2	8	10
	o-Xylene	µg/kg	210000.0	< 2	< 2	5	6
PHENOLS	Methyl Tert-Butyl Ether	µg/kg		< 5	< 5	< 5	< 5
	Total Phenols	mg/kg	1300.0	< 2	< 2	< 2	< 2

Appendix 10 : Selection of Progress Photographs



Figure 1 : 19/10/22 – Timber being segregated



Figure 2 : 24/10/22 – Excavator with selector grab segregating demolition material into separate waste streams



Figure 3 : 25/10/22 – Reinforced access gates displaying appropriate site safety signage



Figure 4 : 27/10/22 - Excavator demolishing/segregating materials from central building



Figure 5: 31/10/22 – Ongoing demolition and disposal of segregated waste streams



Figure 6: 26/10/22 – Openreach engineers on site disconnecting remaining services



Figure 7: 3/11/22 – Vegetation scrape and segregation of green waste



Figure 8: 4/11/22 – Stockpile management/removal of contamination hotspot (TP503) ahead of delineation



Figure 9: 4/11/22 – TP503 stockpiled on hardstanding ahead of removal from site to a licensed landfill facility



Figure 10: 4/11/22 – TP512 stockpiled on hardstanding ahead of removal from site to a licensed landfill



Figure 11 : 8/11/22 – Riddling material from perimeter bund to remove oversize for subsequent processing



Figure 12 : 9/11/22 – Riddling perimeter bund material and separating waste into individual streams



Figure 13 : 9/11/22 – Stockpile management; riddling of bunds to remove oversize material for processing



Figure 14 : 9/11/22 – Openreach engineers return to site to remove redundant telephone poles



Figure 15 : 10/11/22 – Separating waste from oversize



Figure 16 : 10/11/22 & 11/11/22 – Background (reassurance) air monitoring in progress around site boundary during riddling activities



Figure 17: 15/11/22 – Utilising hydraulic breaker to process larger pieces of oversize ahead of crushing



Figure 18: 15/11/22 – Loading contaminated (hazardous) soils into 8WT for disposal at Provectus in Crewe



Figure 19: 16/11/22 – Oversize stockpile management

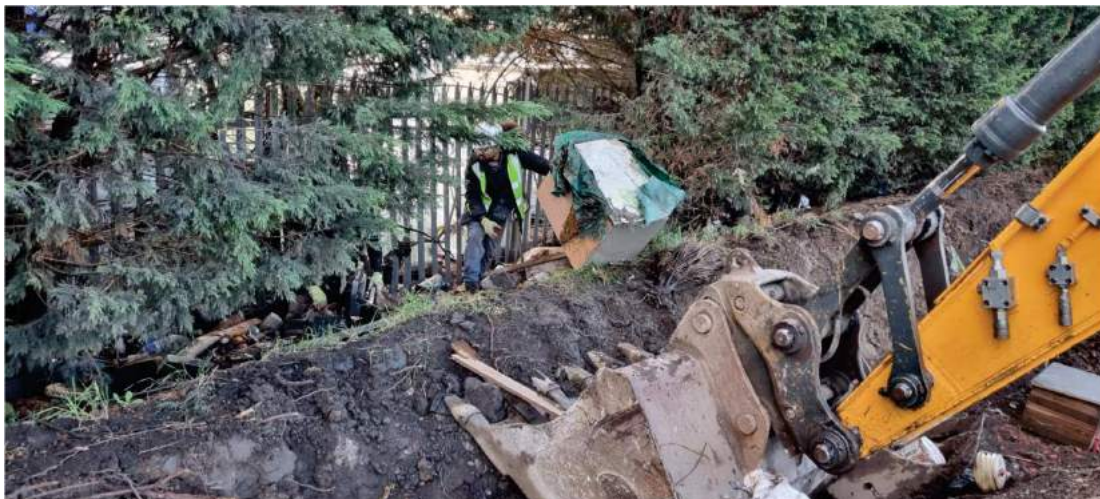


Figure 20: 16/11/22 – Waste from perimere of site being hand-loaded into excavator bucket for transfer to waste skips



Figure 21 : 17/11/22 – Clearing existing general waste from treeline



Figure 22 : 17/11/22 – Relocating scrap metal skip during operations



Figure 23 : 18/11/22 – Separating vegetation from remaining edge bunds



Figure 24 30/11/22 – Lifting and stripping hardstanding



Figure 25 : 1/12/22 – Lifting and stripping areas of tarmac surfacing



Figure 26 1/12/22 – Crushing stockpiled oversized materials



Figure 27 5/12/22 – Loading green waste/vegetation strip materials for disposal

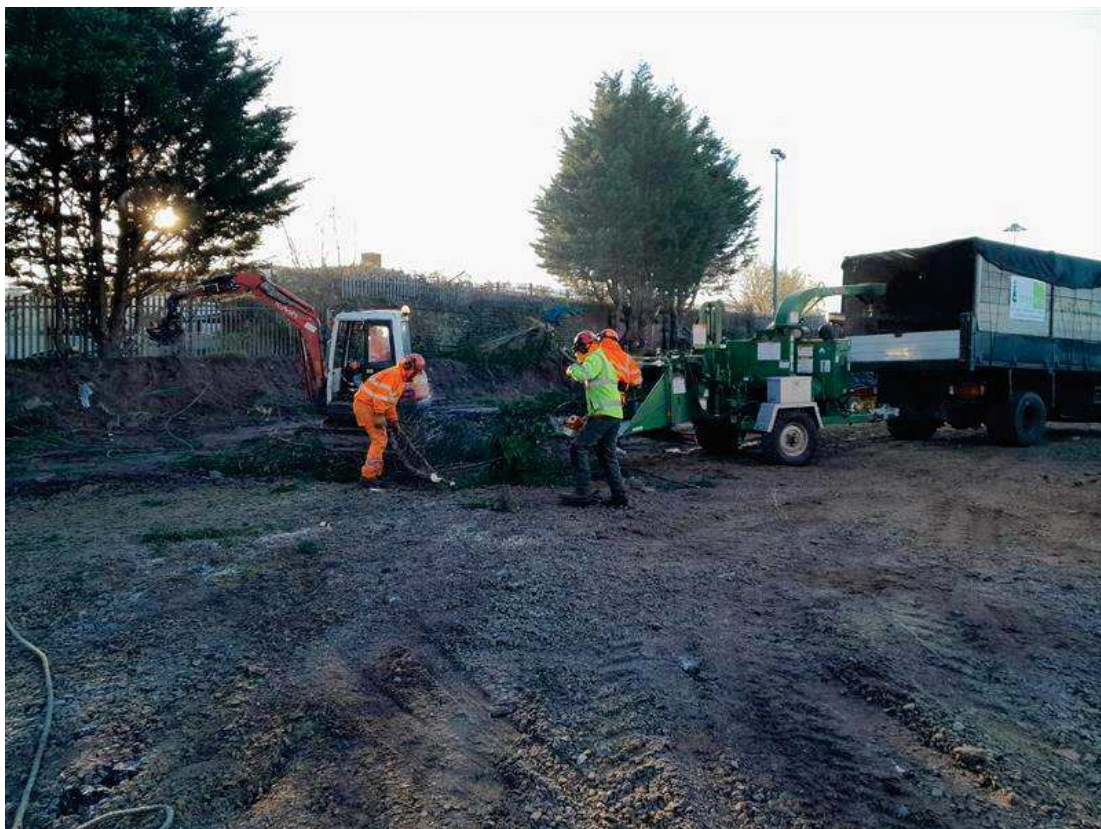


Figure 28 7/12/22 – Chipping felled trees from eastern boundary



Figure 29 : 7/12/22 – Treefelling works almost complete



Figure 30 : 12/12/22 – Turnover under main access road



Figure 31 : 12/12/22 – Processing perimeter bund in north-east corner



Figure 32 : 13/12/22 – Segregation of materials into stockpiles



Figure 33 : 22/12/22 – Sampling site-won subsoils



Figure 34 : 23/12/22 – Completed excavation for subsoils



Figure 35 : 29/12/22 – PLacement of crush to access road



Figure 36 : 11/01/23 – Delivery of granulated lime for treatment of saturated soils



Figure 37: 12/01/23 – Disposal of last remaining oversize material



Figure 38: 17/01/23 – Using the granulated lime to reduce the free moisture content of fill material



Figure 39 : 17/01/23 – Quarantine of asbestos-cement pipes encountered during final turnover



Figure 40 : 23/01/23 – Double-bagging of asbestos-cement pipes prior to removal from site



Figure 41 : 23/01/23 – Placement of granular fill to plots



Figure 42 : 24/01/23 – Piling rig at work in SE corner of the site



Figure 43 : 24/01/23 – Completed plot in SW of site



Figure 44 : 24/01/23 – Completed plot in NW of site



Figure 45 : 27/01/23 – Lightweight Deflectometer testing on completed pile mat



Figure 46 : 3/02/23 – Stoned-up access and pad for concrete pump (eastern pad)



Figure 47: 3/02/23 – Western stockpile of clean certified subsoil (Stockpile 5)



Figure 48 : 3/02/23 – Eastern stockpile of clean certified subsoil (Stockpile 6)

Appendix 11 : Retained Certified Soils



D Marland
LK Consult Limited
Unit 29 Eton Business Park
Eton Hill Road
Manchester
M26 2ZS

Derwentside Environmental Testing Services Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 22-11037

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Sample Receipt Date: 23/12/2022

Sample Scheduled Date: 23/12/2022

Report Issue Number: 1

Reporting Date: 09/01/2023

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 22-11037	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	SS01	SS02	SS03	SS04	SS05
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 09/01/2023	DETS Sample No	626249	626250	626251	626252	626253

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	8.0	7.9	7.8	7.7	7.5
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	21	35	14	21	12
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.02	0.03	0.01	0.02	0.01
Arsenic (As)	mg/kg	< 2	MCERTS	4	4	5	5	4
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	10	9	11	12	10
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	16	15	19	19	16
Lead (Pb)	mg/kg	< 3	MCERTS	14	12	15	16	14
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	13	12	15	16	14
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3	< 3	< 3	< 3
Vanadium (V)	mg/kg	< 1	MCERTS	12	11	14	14	12
Zinc (Zn)	mg/kg	< 3	MCERTS	48	45	57	52	49

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 22-11037	Date Sampled	22/12/22				
LK Consult Limited	Time Sampled	None Supplied				
Site Reference: Every Street	TP / BH No	SS06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR221029/DM	Depth (m)	None Supplied				
Reporting Date: 09/01/2023	DETS Sample No	626254				

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected			
pH	pH Units	N/a	MCERTS	7.5			
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	12			
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.01			
Arsenic (As)	mg/kg	< 2	MCERTS	4			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	12			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	16			
Lead (Pb)	mg/kg	< 3	MCERTS	17			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	17			
Selenium (Se)	mg/kg	< 2	MCERTS	< 3			
Vanadium (V)	mg/kg	< 1	MCERTS	13			
Zinc (Zn)	mg/kg	< 3	MCERTS	50			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-11037	Date Sampled	22/12/22	22/12/22	22/12/22	22/12/22	22/12/22
LK Consult Limited	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Every Street	TP / BH No	SS01	SS02	SS03	SS04	SS05
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: LKR221029/DM	Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 09/01/2023	DETS Sample No	626249	626250	626251	626252	626253

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	0.18	< 0.1	0.14	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	0.24	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	0.20	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-11037	Date Sampled	22/12/22				
LK Consult Limited	Time Sampled	None Supplied				
Site Reference: Every Street	TP / BH No	SS06				
Project / Job Ref: LKR 22 1029	Additional Refs	None Supplied				
Order No: LKR221029/DM	Depth (m)	None Supplied				
Reporting Date: 09/01/2023	DETS Sample No	626254				

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6			



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Rose Lane
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Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Sample Descriptions

DETS Report No: 22-11037	
LK Consult Limited	
Site Reference: Every Street	
Project / Job Ref: LKR 22 1029	
Order No: LKR221029/DM	
Reporting Date: 09/01/2023	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
626249	SS01	None Supplied	None Supplied	12.1	Brown sandy clay with stones
626250	SS02	None Supplied	None Supplied	10.5	Brown sandy clay with stones
626251	SS03	None Supplied	None Supplied	14.6	Brown sandy clay with stones
626252	SS04	None Supplied	None Supplied	14.6	Brown sandy clay
626253	SS05	None Supplied	None Supplied	12.7	Brown sandy clay with stones
626254	SS06	None Supplied	None Supplied	12.1	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/5}

Unsuitable Sample ^{1/5}



DETS Ltd
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Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 22-11037

LK Consult Limited

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Reporting Date: 09/01/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCS	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



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List of HWOL Acronyms and Operators

DETS Report No: 22-11037

LK Consult Limited

Site Reference: Every Street

Project / Job Ref: LKR 22 1029

Order No: LKR221029/DM

Reporting Date: 09/01/2023

Acronym	Description
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
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det - Acronym

Appendix 12 : Drawings

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Written dimensions to be taken in preference to scaled dimensions.
Due to the inaccuracies of scanning, scanned images should not be scaled.

REV:	DATE:	DESCRIPTION:	MK
A	25.01.21	Static caravan and tourer dims adjusted	MK
B	15.02.21	Pitches 1 & 2 amended, static added	MK
C	30.03.21	Pitches renumbered, plots 11 & 12 amended	MK
D	14.05.21	Static indicated plots 11 & 12/bins added	MK
E	22.04.21	Dropped kerbs indicated adj. site access	MK
F	15.10.21	Fence boundary notes updated	MK
G	30.11.21	Fence line amended	MK



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and Wales, No. 06694275

PADDOCK
JOHNSON

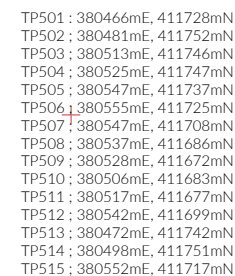
DRAWING NUMBER:	SCALE:	DATE:
19144-101G	1:500@A3	22.10.20.
STATUS:	BY:	CHECKED:
PLANNING	MK	SH

DRAWING TITLE:
Proposed Site Layout

CLIENT:
Bury Council

PROJECT:
Fernhill Gypsy and Traveller
Site Re-development

1. ALL LEVELS TO mADD
2. DO NOT SCALE FROM THIS DRAWING

 TP506 AS-BUILT TRIAL PIT LOCATION

JOHN SOUTHWORTH LTD



EVERY STREET, BURY

SITE INVESTIGATION LOCATION PLAN

DESIGN	DATE	APPROVED	DATE
RC	25/08/2022	PD	25/08/2022
SCALE	SHEET	DRAWING NUMBER	REVISION
1:500	A3	LKR 22 1029_02	0

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NOTES

1. ALL LEVELS TO mADD
2. DO NOT SCALE FROM THIS DRAWING
3. STOCKPILES SHOWN WILL BE TRANSIENT, AS MATERIALS ARE USED/EXPORTED FROM SITE
4. STOCKPILE VOLUMES COMPUTED FROM LK SURVEY DATA, SUBTRACTING THE BOTTOM OF BANK SURFACE FROM THE OVERALL STOCKPILE SURVEY LAS SURVEY DATA WAS NOT AVAILABLE FOR THE SURFACE ON WHICH THE STOCKPILE HAD BEEN CONSTRUCTED

KEY

- TOP OF BANK
SUBSOIL STOCKPILE
BOTTOM OF BANK

NO	DESCRIPTION	DATE	BY
4	STOCKPILE 7 ADDED	11/01/23	RC
3	STOCKPILES 5 & 6 ADDED	11/01/23	RC
2	STOCKPILE 4 ADDED	11/01/23	RC
1	STOCKPILE 3 ADDED	11/12/22	RC

CLIENT

JOHN SOUTHWORTH

LK REMEDIATE
LK Remediate
Eton Hill Road
Rackliffe
M26 2ZS
T: 0161 736 7200
www.thelkgroup.com

JOB TITLE

EVERY STREET, FERNHILL, BURY

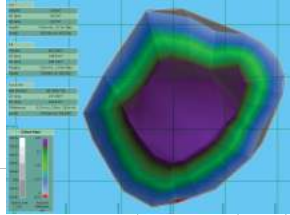
DRAWING TITLE

STOCKPILE REGISTER

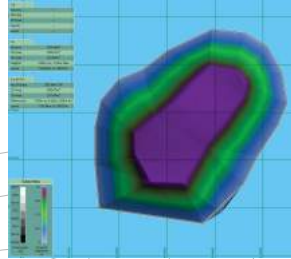
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RC	7/12/2022	RC	7/12/2022
SCALE	SHEET	DRAWING NUMBER	REVISION
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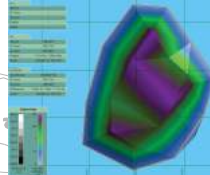
STOCKPILE 5
Clean Subsoil
408m³



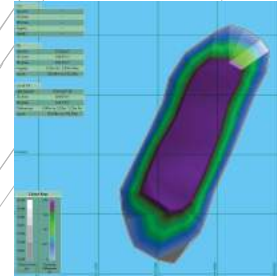
STOCKPILE 3
Oversize
188m³



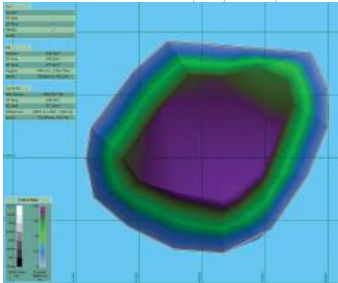
STOCKPILE 2
Concrete Crush
595m³



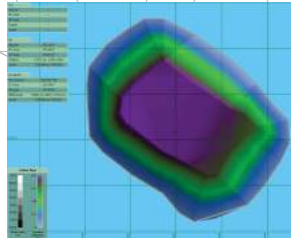
STOCKPILE 7
Muckaway
370m³



STOCKPILE 1
Tarmac Crush
357m³



STOCKPILE 4
Clean Subsoil
556m³



STOCKPILE 6
Clean Subsoil
194m³

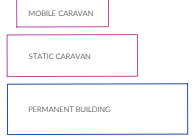
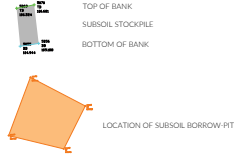


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NOTES

1. ALL LEVELS TO m+A00
2. DO NOT SCALE FROM THIS DRAWING
3. TOTAL SUBSOIL STOCKPILE VOLUME = 408 + 194 = 602m³

KEY



REV	DESCRIPTION	DATE	BY
-----	-------------	------	----

CLIENT

JOHN SOUTHWORTH BUILDERS



JOB TITLE

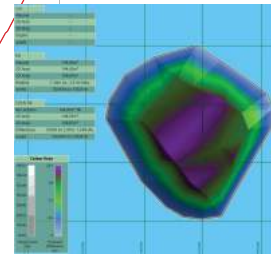
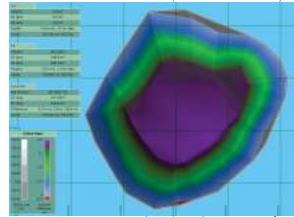
EVERY STREET, FERNHILL, BURY

DRAWING TITLE

STOCKPILED CLEAN SUBSOIL

APPROVED	DATE	APPROVED	DATE
RC	14/02/2023	RC	14/02/2023

SCALE	SHEET	DRAWING NUMBER	REVISION
1:250	A1	LKR 22 1029_05	0



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NOTES

1. ALL LEVELS TO M400
2. DO NOT SCALE FROM THIS DRAWING
3. STOCKPILES SHOWN WILL BE TRANSIENT, AS MATERIALS ARE USED/EXPORTED FROM SITE
4. STOCKPILE VOLUMES COMPUTED FROM LK SURVEY DATA, SUBTRACTING THE BOTTOM OF BANK SURFACE FROM THE OVERALL STOCKPILE SURVEY AS SURVEY DATA WAS NOT AVAILABLE FOR THE SURFACE ON WHICH THE STOCKPILE HAD BEEN CONSTRUCTED



NO.	DESCRIPTION	DATE	BY
4	STOCKPILE 7 ADDED	11/01/23	RC
3	STOCKPILES 5 & 6 ADDED	31/01/23	RC
2	STOCKPILE 4 ADDED	11/01/23	RC
1	STOCKPILE 3 ADDED	11/12/22	RC
REV	DESCRIPTION	DATE	BY

CLIENT

JOHN SOUTHWORTH



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JOB TITLE

EVERY STREET, FERNHILL, BURY

DRAWING TITLE

GEOTECH TESTING LOCATIONS

APPROVED	DATE	APPROVED	DATE
DM	10/02/2023	DM	27/02/2023
SCALE	DATE	DRAWING NUMBER	REVISION
NTS	A1	LKR 22 1029_07	0

WB
El Sub Sta

existing perimeter fence retained with new internal 1.8m high timber fence

site entrance realigned to accommodate new layout of pitches/office
existing lamp post to be relocated

existing perimeter fence retained with new internal 1.8m high timber fence

EVERY STREET
2.4m x 4.3m sight line

FERNHILL

- LWD 27/01/23
- CBR 25/01/23
- LWD 27/02/23

KEY

static (max)
12.2x3.9m/
40x12.8ft
reinforced conc.
base for static/tourer

tourer (max)
18.6x2.6m/
28x8.5ft
reinforced conc.
base for tourer

2 no. parking bays per
pitch - 5x5m² area

16.4ft
0m 5m

Wheel wc

NOTES

1. ALL LEVELS TO M400
2. DO NOT SCALE FROM THIS DRAWING
3. STOCKPILES SHOWN WILL BE TRANSIENT, AS MATERIALS ARE USED/EXPORTED FROM SITE
4. STOCKPILE VOLUMES COMPUTED FROM LK SURVEY DATA, SUBTRACTING THE BOTTOM 0.4m OF BANK SURFACE FROM THE OVERALL STOCKPILE SURVEY LAS SURVEY DATA WAS NOT AVAILABLE FOR THE SURFACE ON WHICH THE STOCKPILE HAD BEEN CONSTRUCTED

CLIENT

JOHN SOUTHWORTH



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Rackliffe
M26 2ZS
T: 0161 736 7200
www.thelkgroup.com

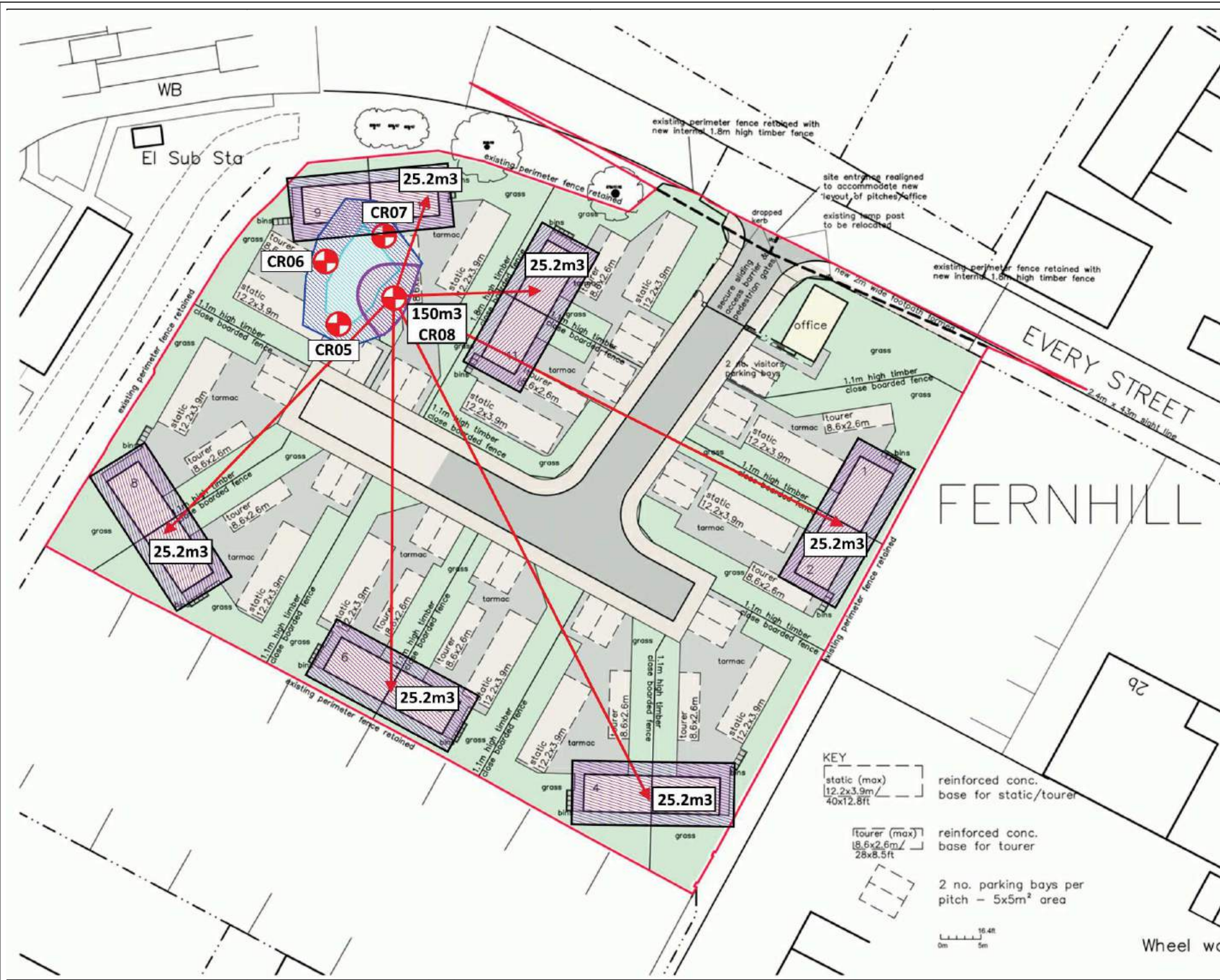
JOB TITLE

EVERY STREET, FERNHILL, BURY

DRAWING TITLE

CR08 MATERIAL PLACEMENT

ISSUE	DATE	APPROVED	DATE
DM	31/03/2023	DM	31/03/2023
SCALE	DRAWING NUMBER	REVISION	
NTS	A1	LKR 22 1029_08	0



Appendix 13: Air Monitoring

9 Telford Court, Dunkirk Lea, Chester Gates, Chester, CH1 6LT. Tel: 01244 851753 Fax: 01244 851752

Access this document online via your asbestos management portal: www.apecuk.org/LK-Group

Site Air Test Certificate Ref:	ST/22/11/10/SM2	Date of Issue:	10/11/2022	Page 1 of 4
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Note: Inspection undertaken in accordance with APEC in-house Methods QCRF2, OH1 and OH2, based on the HSE publication HSG 248 'The Analysts Guide'

Site:	Client:	Contractor:
Fernhill Travellers Site Every Street Bury Lancashire BL9 5BE	LK Group Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS	Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS
Contact: N/A	Contact: Richard Clarke	Contact: N/A

Samples taken by (APEC)

Analyst	Sarah McKenna	Signed by (APEC)		Date	10/11/2022
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Air Testing

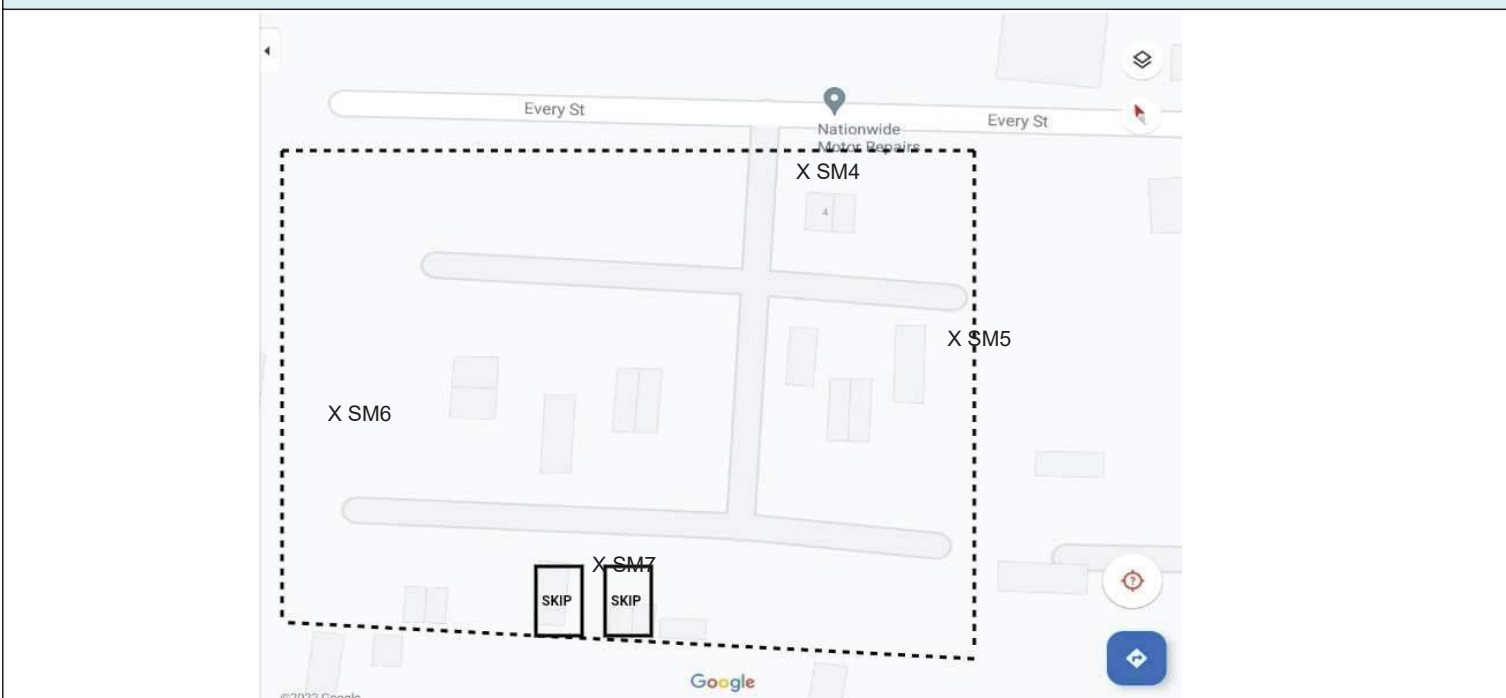
Purpose of Test

Far-Source Sampling	☐	Near-Source sampling	☐	Leak Test	☐	Background Test	☒	Reassurance Test	☐
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Site Photograph and Additional Site Information

	Area Assessed:	Travellers site	
	Description of reason for test (including the nature and extent of ACMs removed):	Reassurance air test during ground works after finding suspect material on site.	
	Site Specific Risk Assessment:	Project Information Sheet (if used):	
	RA/22/11/10/SM2	-	

Sample Area Layout Plan



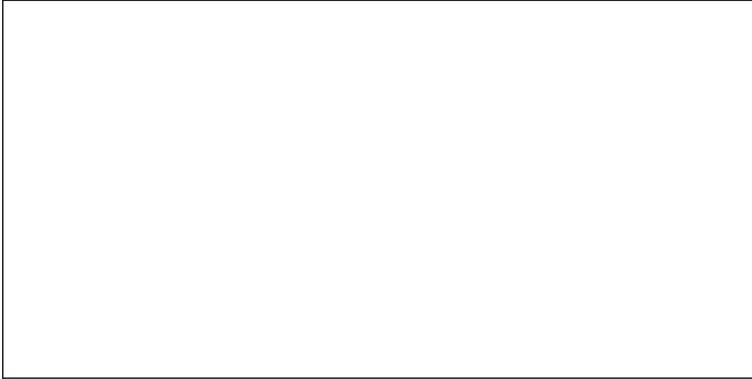
9 Telford Court, Dunkirk Lea, Chester Gates, Chester, CH1 6LT. Tel: 01244 851753 Fax: 01244 851752

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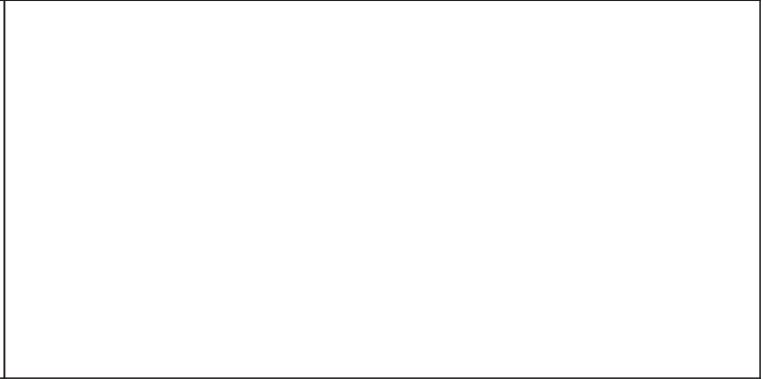
Site Air Test Certificate Ref:	ST/22/11/10/SM2	Date of Issue:	10/11/2022	Page 3 of 4
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Photographs

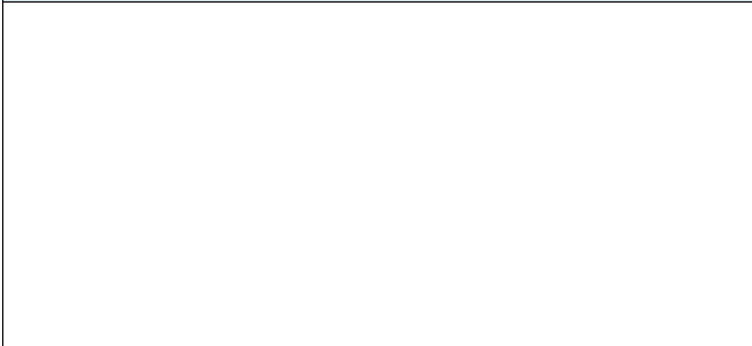
Photograph 1



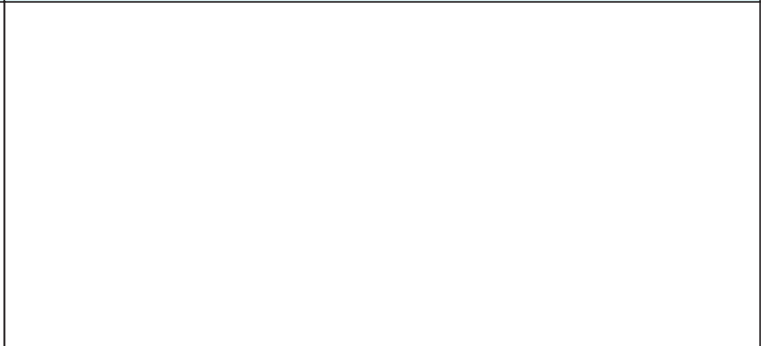
Photograph 2



Photograph 3



Photograph 4



Sampling pump (sample ref: 22/11/A/10/SM4)



Sampling pump (sample ref: 22/11/A/10/SM5)



Sampling pump (sample ref: 22/11/A/10/SM6)



Sampling pump (sample ref: 22/11/A/10/SM7)



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Site Air Test Certificate Ref:	ST/22/11/10/SM2	Date of Issue:	10/11/2022	Page 4 of 4
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Note: Inspection undertaken in accordance with APEC in-house Methods QCRF2, OH1 and OH2, based on the HSE publication HSG 248 'The Analysts Guide'

Site:	Client:	Contractor:
Fernhill Travellers Site Every Street Bury Lancashire BL9 5BE	LK Group Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS	Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS
Contact: N/A	Contact: Richard Clarke	Contact: N/A

Appendix 1 - Additional Air Test Information

Notes:

1. This information supplements the air test results found on page 2 of the Site Air Test Certificate and is only valid in conjunction with those results.
2. Temperature is recorded in **Kelvin (K)**, Pressure is recorded in **mmHg**, Flowrates are recorded in **litres per minute (l/min)**, Sample volume is recorded in **litres**
3. Interim flow checks are only carried out where the overall sample period exceeds approximately 1 hour
4. All testing and analysis is undertaken with reference to APEC' task specific risk assessments TRA 01 and TRA 02

APEC Analytical Equipment

Flow Meter	FMG	Barometer	N/A	Thermometer	N/A	Stop Watch	SW14	Effective filter diameter (mm)	22.60	
Stage Micrometer No	SM14	Measured Graticule dia.	100	HSE / NPL Test Slide No.	PC31	No. of bands seen	5	Microscope Number	APM08	
Samples counted by (APEC Analyst)	Sarah McKenna		Signed			Date Analysed	10/11/2022	Analysis Location (Site / Lab)	Site	
Test Protocol:	1S (Background Airtest)						Checked by:	N/A		
Suitability of Counting Location		Location assessed and adequate (if not record details in Analyst Comments)			Counting Location (describe)					
Sample Number	Pump No.	Head No.	Temp	Pressure	Start Flow	Start Time	Interim Flow	Interim Time	End Flow	End Time
22/11/A/10/SM4	JD 03926	13C	N/A	N/A	8.0	12:13	-	--:--	8.0	13:16
22/11/A/10/SM5	JD 03220	13D	N/A	N/A	8.0	12:14	-	--:--	8.0	13:17
22/11/A/10/SM6	JD 05834	13E	N/A	N/A	8.0	12:16	-	--:--	8.0	13:19
22/11/A/10/SM7	AB8L 0527	13F	N/A	N/A	8.0	12:17	-	--:--	8.0	13:20
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
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Analysts in Training

To be signed off by the lead analyst where the analyst carrying out the inspection and testing is working under supervision as part of training.

Trainer /		Signed by (APEC)		Date:	
Lead					
Trainee		Signed by (APEC)		Date:	

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Site Air Test Certificate Ref:	ST/22/11/11/PM1	Date of Issue:	11/11/2022	Page 1 of 4
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Note: Inspection undertaken in accordance with APEC in-house Methods QCRF2, OH1 and OH2, based on the HSE publication HSG 248 'The Analysts Guide'

Site:	Client:	Contractor:
Land Off Every Street Every Street Bury Greater Manchester BL9 5BE	LK Group Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS	LK Group Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS
Contact: NA	Contact: Richard Clarke	Contact: N/A

Samples taken by (APEC)

Analyst	Phil McLean	Signed by (APEC)		Date	11/11/2022
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Air Testing

Purpose of Test

Far-Source Sampling	☐	Near-Source sampling	☒	Leak Test	☐	Background Test	☐	Reassurance Test	☐
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Site Photograph and Additional Site Information

	Area Assessed:	External land		
	Description of reason for test (including the nature and extent of ACMs removed):	Near source airtesting during excavations works on contaminated land		
	Site Specific Risk Assessment:	Project Information Sheet (if used):		
	RA/22/11/11/PM2	NA		

Sample Area Layout Plan



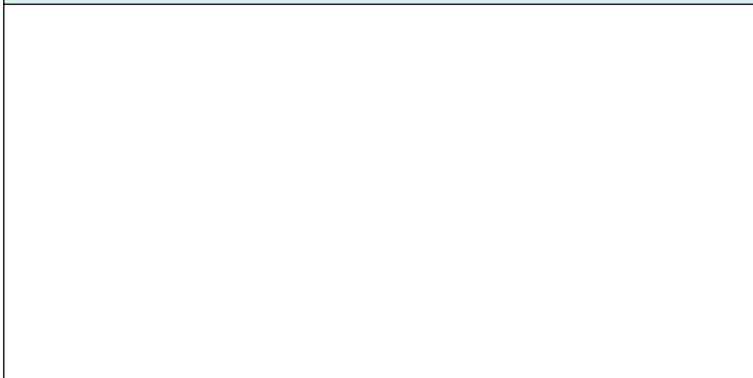
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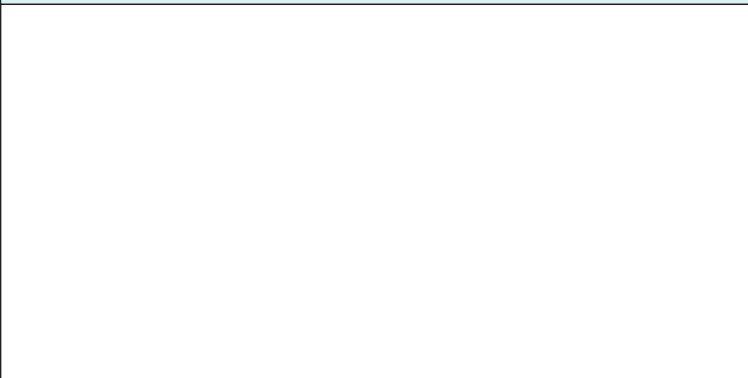
Site Air Test Certificate Ref:	ST/22/11/11/PM1	Date of Issue:	11/11/2022	Page 3 of 4
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Photographs

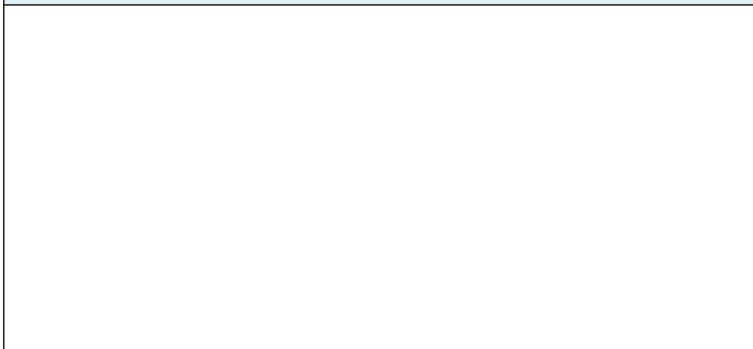
Photograph 1



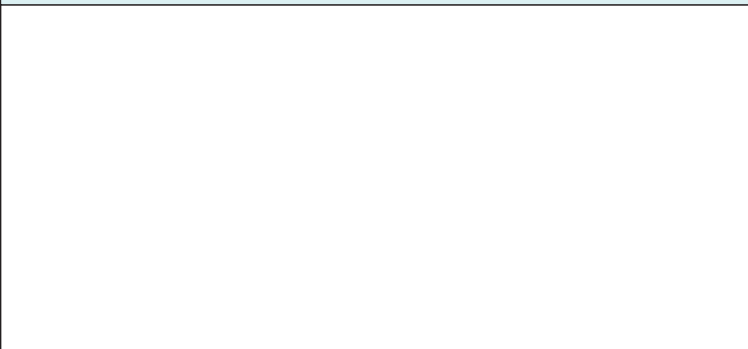
Photograph 2



Photograph 3



Photograph 4



Sampling pump (sample ref: 22/11/A/11/PM1)



Sampling pump (sample ref: 22/11/A/11/PM2)



Sampling pump (sample ref: 22/11/A/11/PM3)



Sampling pump (sample ref: 22/11/A/11/PM4)



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Site Air Test Certificate Ref:	ST/22/11/11/PM1	Date of Issue:	11/11/2022	Page 4 of 4
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Note: Inspection undertaken in accordance with APEC in-house Methods QCRF2, OH1 and OH2, based on the HSE publication HSG 248 'The Analysts Guide'

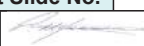
Site:	Client:	Contractor:
Land Off Every Street Every Street Bury Greater Manchester BL9 5BE	LK Group Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS	LK Group Unit 29 Eton Business Park Eton Hull Road Radcliffe Manchester M26 2ZS
Contact: N/A	Contact: Richard Clarke	Contact: N/A

Appendix 1 - Additional Air Test Information

Notes:

1. This information supplements the air test results found on page 2 of the Site Air Test Certificate and is only valid in conjunction with those results.
2. Temperature is recorded in **Kelvin (K)**, Pressure is recorded in **mmHg**, Flowrates are recorded in **litres per minute (l/min)**, Sample volume is recorded in **litres**
3. Interim flow checks are only carried out where the overall sample period exceeds approximately 1 hour
4. All testing and analysis is undertaken with reference to APEC' task specific risk assessments TRA 01 and TRA 02

APEC Analytical Equipment

Flow Meter	FM52	Barometer	N/A	Thermometer	N/A	Stop Watch	SW17	Effective filter diameter (mm)	22.60	
Stage Micrometer No	SM10	Measured Graticule dia.	100	HSE / NPL Test Slide No.	PC12	No. of bands seen	5	Microscope Number	APM19	
Samples counted by (APEC Analyst)	Phil McLean		Signed			Date Analysed	11/11/2022	Analysis Location (Site / Lab)	Site	
Test Protocol:	5S (Near-source monitoring)						Checked by:	N/A		
Suitability of Counting Location		Location assessed and adequate (if not record details in Analyst Comments)				Counting Location (describe)	Welfare unit			
Sample Number	Pump No.	Head No.	Temp	Pressure	Start Flow	Start Time	Interim Flow	Interim Time	End Flow	End Time
22/11/A/11/PM1	AB8L0735	9A	N/A	N/A	8.0	12:15	-	--:--	8.0	13:18
22/11/A/11/PM2	AB8L1268	9B	N/A	N/A	8.0	12:16	-	--:--	8.0	13:19
22/11/A/11/PM3	V8-068	9C	N/A	N/A	8.0	12:17	-	--:--	8.0	13:20
22/11/A/11/PM4	AB8L1269	9D	N/A	N/A	8.0	12:18	-	--:--	8.0	13:21
-	-	-	-	-	-	-	-	-	-	-
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Analysts in Training

To be signed off by the lead analyst where the analyst carrying out the inspection and testing is working under supervision as part of training.

Trainer /		Signed by (APEC)		Date:	
Lead					
Trainee		Signed by (APEC)		Date:	

APPENDIX C

RSK PHOTOGRAPHIC LOG

RSK PHOTOGRAPHIC LOG

Project Reference: 11752

Site Location: Fernhill Caravan Park

Topsoil and Subsoil Validation

Photo No.1

Date: 11/08/23

Description

Plot 2 (VP02)

Photo of wider plot.



Photo No. 2

Date: 11/08/23

Description

Plot 2 (VP02)

Topsoil measurement.



Topsoil and Subsoil Validation	
Photo No. 3 Date: 11/08/23 Description Plot 2 (VP02) Subsoil measurement.	
Photo No.4 Date: 11/08/23 Description Plot 2 (VP02) White terram layer at base.	

Topsoil and Subsoil Validation

Photo No. 5

Date: 11/08/23

Description

Plot 3 (VP03)

Photo of wider plot.



Photo No. 6

Date: 11/08/23

Description

Plot 3 (VP03)

White terram layer.



Topsoil and Subsoil Validation

Photo No. 7

Date: 11/08/23

Description

Plot 3 (VP03)

Topsoil measurement.



Photo No. 8

Date: 11/08/23

Description

Plot 3 (VP03)

Subsoil measurement.



Topsoil and Subsoil Validation	
Photo No. 9 Date: 11/08/23 Description Plot 4 (VP04) Photo of wider plot.	
Photo No. 10 Date: 11/08/23 Description Plot 4 (VP04) White terram layer.	

Topsoil and Subsoil Validation	
Photo No. 11 Date: 11/08/23 Description Plot 4 (VP04) Topsoil measurement.	
Photo No.12 Date: 11/08/23 Description Plot 4 (VP04) Subsoil measurement.	

Topsoil and Subsoil Validation

Photo No. 13
Date: 11/08/23

Description
Plot 8 (VP08)

Wider photo of plot.



Photo No. 14
Date: 11/08/23

Description
Plot 8 (VP08)
White terram layer.



Topsoil & Subsoil Validation

Photo No. 15
Date: 11/08/23

Description

Plot 8 (VP08)

Topsoil measurement.

Photo of measuring tape used to differentiate the material.



Photo No. 16
Date: 11/08/23

Description

Plot 8 (VP08)

Subsoil measurement.



Topsoil & Subsoil Validation

Photo No. 17

Date: 11/08/23

Description

Plot 10 (VP10)

Wider photo of plot.



Photo No. 18

Date: 11/08/23

Description

Plot 10 (VP10)

White terram layer.



Topsoil & Subsoil Validation

Photo No. 19
Date: 11/08/23

Description
Plot 10 (VP10)
Topsoil measurement.

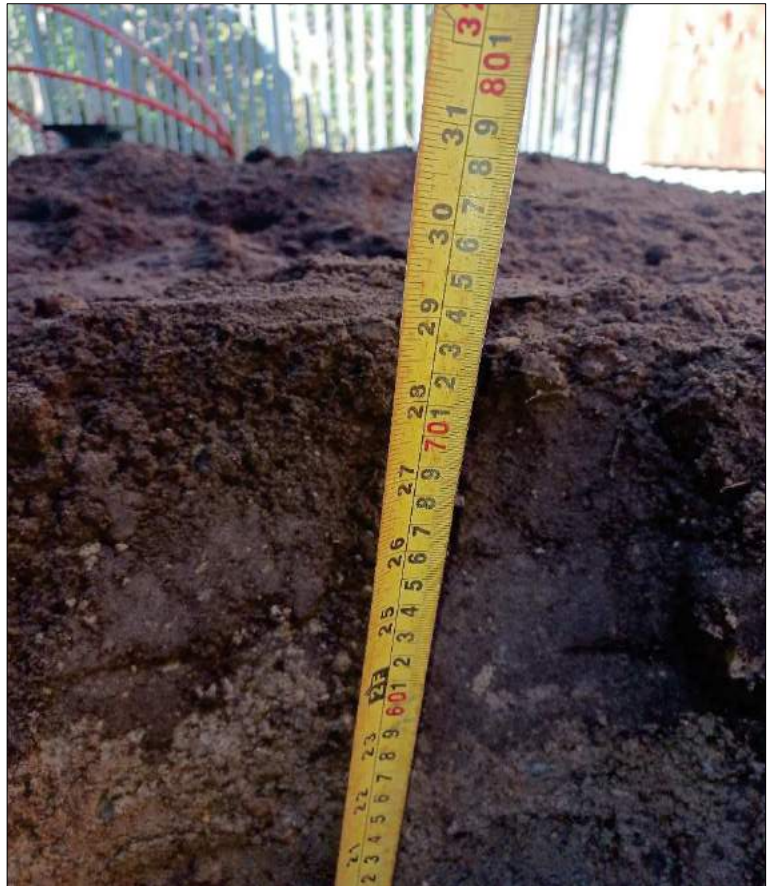


Photo No. 20
Date: 11/08/23

Description
Plot 10 (VP10)
Subsoil measurement.



APPENDIX D

IMPORTED TOPSOIL ANALYSIS REPORT

**Dave B**

Cheshire Soils and Aggregates Ltd
Unit 3B, Thelwall Lane
Warrington
Cheshire
WA4 1TB

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: dave@cheshiresoils.co.uk

Analytical Report Number : 22-41097

Project / Site name: Ledsham One

Samples received on: 22/02/2022

Your job number: L1

**Samples instructed on/
Analysis started on:** 22/02/2022

Your order number:

Analysis completed by: 03/03/2022

Report Issue Number: 1

Report issued on: 04/03/2022

Samples Analysed: 1 soil sample

Signed:

Izabela Wójcik

Izabela Wójcik
Technical Reviewer (Reporting Team)
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: 22-41097
Project / Site name: Ledsham One

Lab Sample Number				2181151
Sample Reference				Sample 1
Sample Number				L1
Depth (m)				None Supplied
Date Sampled				18/02/2022
Time Taken				1700
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	17
Total mass of sample received	kg	0.001	NONE	2.0

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

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.6
Organic Matter (automated)	%	0.1	MCERTS	2.9

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	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.6
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.39
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	4	NONE	< 4.0
Chromium (III)	mg/kg	1	NONE	18
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17
Lead (aqua regia extractable)	mg/kg	1	MCERTS	31
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	21
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	44

Analytical Report Number: 22-41097
Project / Site name: Ledsham One

Lab Sample Number				2181151	
Sample Reference				Sample 1	
Sample Number				L1	
Depth (m)				None Supplied	
Date Sampled				18/02/2022	
Time Taken				1700	
Analytical Parameter (Soil Analysis)		Units	Limit of detection	Accreditation Status	

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS_ID_AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 _{HS_ID_AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 _{HS_ID_AL}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 _{EH_CU_ID_AL}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH_CU_ID_AL}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH_CU_ID_AL}	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) _{EH_CU+HS_ID_AL}	mg/kg	10	MCERTS	< 10

TPH-CWG - Aromatic >EC5 - EC7 _{HS_ID_AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 _{HS_ID_AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 _{HS_ID_AR}	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 _{EH_CU_ID_AR}	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 _{EH_CU_ID_AR}	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35 _{EH_CU_ID_AR}	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic (EC5 - EC35) _{EH_CU+HS_ID_AR}	mg/kg	10	MCERTS	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 22-41097
Project / Site name: Ledsham One

* 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 *
2181151	Sample 1	L1	None Supplied	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 22-41097

Project / Site name: Ledsham One

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
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 disperion 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
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
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
Organic matter (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

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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



Analytical Report Number : 22-41097
Project / Site name: Ledsham One

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
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				

Sample Deviation Report



Analytical Report Number : 22-41097

Project / Site name: Ledsham One

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
Sample 1	L1	S	2181151	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
Sample 1	L1	S	2181151	b	Speciated EPA-16 PAHs in soil	L064-PL	b
Sample 1	L1	S	2181151	b	TPHCWG (Soil)	L088/76-PL	b

Key: **a** - No sampling date **b** - Incorrect container
c - Holding time **d** - Headspace **e** - Temperature

Iss No 22-41097-1 Ledsham One L1
Page 7 of 7