



**BROWNFIELD
SOLUTIONS LTD**

GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

TAYLOR WIMPEY / HOMES ENGLAND

The Lanes, Penwortham

Geo-Environmental Assessment Report

NS/C4259/9441 Rev A

October 2020

EXECUTIVE SUMMARY	
Location and Brief Site Description	<p>The site is located off Bee Lane, Moss Lane, Flag Lane, Lord's Lane and Nib Lane, Penwortham, PR1 9TU. It is situated approximately 3km south-west of Preston City Centre, centred on National Grid Reference 353236, 426110 as shown on the Site Location Plan, Drawing No. C4259/01.</p> <p>The site mainly comprises open fields utilised for raising cattle, growing grass for hay/silage and paddocks for horses. The site is bound by residential properties to the north, the Farrington Connecting Fork / North Union Railway line to the east, farmland from Chain House Lane / Coote Lane to the south and Penwortham Way (A582) to the west.</p> <p>The site is set within a mixed rural and residential area, surrounding by agricultural fields, residential properties, rural industry such as farms, dairies, and engineering works in addition to the railway line to the east.</p>
Ground Conditions	<p>Generalised ground conditions from the ground investigation comprise (top down):</p> <ul style="list-style-type: none"> • Made ground encountered in localised areas of the site from ground level to between 0.10m and 0.99m bgl. • Topsoil encountered from ground level to between 0.10m and 0.70m bgl. • Natural superficial strata (predominantly cohesive) encountered proven to a maximum depth of 20.45m bgl. • Peat deposits have been identified sporadically across the site, typically ranging in thickness, where present, from 0.03m to 1.43m. • The solid geology of the Singleton Mudstone Member was not encountered in this investigation. • Groundwater strikes recorded during site works ranged between 0.18m and 14.20m bgl, likely associated with sand bands within the clay. Post site works monitoring has revealed levels between ground level and 9.91m bgl.
Soil Contamination – Human Health	<p>A number of exceedances of metals and PAHs were encountered within topsoil in the south-east of the site, however statistical analysis has confirmed that the true mean is below the critical concentration and these soils are therefore suitable for the intend residential end use.</p> <p>A pesticide screen was undertaken on 62 topsoil samples, of which possible pesticide markers were recorded in forty-two samples. Comprehensive pesticide and herbicide tests were undertaken on 19 samples which did not reveal any concentrations of pesticides or herbicides above detection level.</p> <p>Elevated concentrations of metals and PAHs are associated with the localised made ground. Chrysotile loose fibres were also detected in TP63 (0-0.45m) within a layer of made ground associated with a former garage / outbuilding. On quantification analysis the asbestos level was <0.001% mass and classified as being trace levels. The identified contaminants pose a risk to end users and require mitigation measures.</p>
Groundwater Contamination	<p>The site is not considered to pose a significant risk to controlled water for the following reasons:</p> <ul style="list-style-type: none"> • No significant contamination has been identified on site in soils based on the results obtained as a potential indicator of groundwater contamination. • The site is underlain by low permeability clays which will inhibit lateral and vertical contaminant migration. • The site does not lie within 500m of an SPZ. • There are no groundwater abstractions within 250m. • There are no potable (sensitive) water abstractions within 250m.
Ground Gas	<p>Based on the assessments to date, the site falls into NHBC Green classification and no ground gas protection measures are required, subject to the removal of peat / made ground associated with WS87 attributed to a former infilled pond in the north-west of the site.</p>
Outline Remedial Strategy	<p>Should made ground remain in place in gardens / soft landscaping (POS) areas then a cover of "clean" subsoil and topsoil should be provided to break the pathway to site end users. This should be 600mm thick in garden areas and 300mm in POS areas in accordance with BRE 465. The inclusion of a geotextile marker layer at the base or coarse granular, 'hard dig' layer is also recommended in the vicinity of TP63. Supplementary investigation for testing of asbestos in shallow soils in the vicinity of TP63 would be prudent to fully confirm remedial requirements.</p> <p>Alternatively, the soils could be excavated and placed beneath hard standing under an MMP. This will break the pathway to site end users and mitigate the risk.</p>

EXECUTIVE SUMMARY	
	<p>Elsewhere, where natural soils are present, only a nominal thickness of 100mm of “clean” topsoil will be required in accordance with minimum NHBC recommendations.</p> <p>An infilled pond was recorded in the north of the site, in vicinity to WS87, and was noted to contain elevated concentrations of heavy metals, PAHs and a potential source of methane ground gas. It is therefore recommended that the made ground recorded in this area is removed, this will therefore remove the source and negate the requirement for a cover system and gas protection measures in this area of the site.</p>
Waste Classification	Should made ground be removed from the site this will likely be classified as non-hazardous waste, although efforts should be made to retain as much soil on site as feasible to minimise costs.
Foundations and Floor Slabs	<p>The most suitable foundations for the proposed residential homes are considered to be strip or trench fill foundations at a minimum depth of 0.90m bgl based on the medium volume change potential clays and deeper near trees and hedges in accordance with NHBC Chapter 4.2.</p> <p>An allowable net bearing capacity of 200kPa should be available for foundations bearing on cohesive soils at 0.90m bgl assuming a minimum shear strength of 90kPa. Where medium strength soils are present, an allowable bearing capacity of 130kPa should be assumed. Areas where this applies should be determined as part of detailed foundation design and scheduling when a final development layout plan is available.</p> <p>Given the compressible nature of peat over time and seasonally, foundations will have to be deepened locally to found on suitable clay (minimum medium strength) beneath. Dependant on requirements, it may be feasible to over excavate into the underlying superficial deposits to remove the peat deposits entirely.</p> <p>Suspended floor slabs are recommended. The required void size for beneath floor slabs on this site is 250mm. Ground bearing slabs may also be adopted providing the relevant criteria are satisfied.</p>
Concrete Classification	ACEC Class AC-1s and sulphate class DS-1 conditions prevail.
Highways	Based on the test results equilibrium CBR values of 6% are likely to be achieved in undisturbed natural clays soils for pavement design purposes, unless proven otherwise by in-situ testing at formation level by a specialist geotechnical engineer. Equilibrium CBR values are likely to be 2% within the made ground.
SUDS	The use of traditional soakaways within the natural ground is not considered to be feasible. It is understood swales and attenuation basins will be incorporated into the development.
Earthworks	Earthworks will be required in order to achieve the desired development levels and the embankment level for the proposed dualling of Penwortham Way to the west, alongside attenuation basins. The earthworks should be designed and undertaken in general accordance with the Highways Agency Specification for Highway Works (HASHW), Series 600. Note limited geotechnical testing for preliminary earthworks design has been undertaken to date.
Further Work	<p>The following further works are recommended:</p> <ul style="list-style-type: none"> • Supplementary investigation for testing of asbestos in shallow soils in the vicinity of TP63. • Design of Remedial Strategy and confirmation with the Local Authority/NHBC. • Production of Materials Management Plan (MMP) under the CL:AIRE DoWCoP, if required. • Tree survey by qualified arboriculturist. • Detailed foundation design, including foundation zonation plan and depth schedule. • Production of Earthworks Specification. • Implementation of the Remedial Strategy and verification of the remedial works.

This executive summary should be read in conjunction with the full report, reference NS/C4259/9441 Rev A, and not as a standalone document.

PROJECT QUALITY CONTROL DATA SHEET

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CONTENTS

1.0	INTRODUCTION	1
1.1	CONTEXT	1
1.2	OBJECTIVES AND SCOPE.....	1
1.3	PROPOSED DEVELOPMENT	1
1.4	PREVIOUS REPORTS	1
1.5	LIMITATIONS	1
2.0	THE SITE	4
2.1	LOCATION.....	4
2.2	SITE DESCRIPTION	4
3.0	PREVIOUS REPORTS.....	5
3.1	RoC CONSULTING (2018).....	5
4.0	METHOD OF INVESTIGATION	6
4.1	OBJECTIVES.....	6
4.2	SITE WORKS.....	6
4.3	SAMPLING	7
4.4	LABORATORY TESTING.....	7
4.5	MONITORING	8
5.0	GROUND CONDITIONS	11
5.1	MADE GROUND.....	11
5.2	NATURAL TOPSOIL.....	12
5.3	NATURAL SUPERFICIAL STRATA	12
5.4	NATURAL PEAT DEPOSITS	14
5.5	SOLID GEOLOGY.....	15
5.6	GROUNDWATER.....	15
5.7	OBSERVATIONS	17
6.0	GEOTECHNICAL TEST RESULTS.....	18
6.1	IN SITU GEOTECHNICAL TESTING	18
6.2	LABORATORY GEOTECHNICAL TESTING	18
6.3	AGGRESSIVE GROUND CONDITIONS	20
6.4	SOIL INFILTRATION TEST RESULTS	20
6.5	BOREHOLE PERMEABILITY TEST RESULTS.....	21
6.6	CBR RESULTS.....	21
7.0	GEOTECHNICAL ASSESSMENT.....	23
7.1	GROUND MODEL SUMMARY	23
7.2	SOIL PARAMETERS.....	23
7.3	FOUNDATIONS.....	24
7.4	BUILDING NEAR TREES	26
7.5	FLOOR SLABS.....	26
7.6	SITE PREPARATION AND CONSTRUCTION	27
7.7	CONCRETE CLASSIFICATION	28
7.8	HIGHWAYS.....	28
7.9	SUSTAINABLE DRAINAGE SYSTEMS (SUDS)	28
7.10	EARTHWORKS.....	29
8.0	GENERIC RISK ASSESSMENT	31
8.1	INTRODUCTION	31
8.2	SOILS TEST RESULTS (HUMAN HEALTH).....	31
8.3	SUMMARY OF HUMAN HEALTH RISK ASSESSMENT (SOILS).....	34

CONTENTS

8.4	CONTROLLED WATERS RISK ASSESSMENT	35
8.5	PERMANENT GROUND GAS AND VAPOURS RESULTS	35
8.6	GROUND GAS RISK ASSESSMENT	36
8.7	POTABLE WATER SUPPLY	38
8.8	QUALITATIVE RISK ASSESSMENT	39
8.9	OUTLINE REMEDIAL MEASURES	43
8.10	HEALTH AND SAFETY ISSUES	44
8.11	ASBESTOS	45
9.0	WASTE SOIL CLASSIFICATION & ASSESSMENT	46
9.1	SUMMARY	46
9.2	OPTIONS APPRAISAL	46
9.3	RE-USE OF SOILS	46
9.4	WASTE ASSESSMENT PROCEDURE	47
9.5	WASTE CLASSIFICATION AND WASTE ACCEPTANCE CRITERIA (WAC)	49
9.6	SITE WASTE GENERATION	51
10.0	CONCLUSIONS	52
10.1	ENVIRONMENTAL SUMMARY	52
10.2	GEOTECHNICAL SUMMARY	52
10.3	FURTHER WORK	53
11.0	ABBREVIATIONS AND DEFINITIONS	54
12.0	REFERENCES	57

DRAWINGS

Drawing Number	Rev	Title
-	-	Master Plan
C4259/01	-	Site Location Plan
C4259/02	-	Exploratory Hole Location Plan
C4259/03	-	Peat Location Plan

APPENDICIES

Appendix	Title
Appendix A	BSL Methodology and Guidance
Appendix B	Exploratory Hole Logs
Appendix C	Geotechnical Testing Results
Appendix D	Chemical Testing Results
Appendix E	Soil Infiltration & Permeability Test Results
Appendix F	Plate Load Test Results
Appendix G	Monitoring Results
Appendix H	Waste Assessment Report

1.0 INTRODUCTION

1.1 Context

This report describes a Geo-Environmental Assessment carried out by Brownfield Solutions Limited (BSL) for Taylor Wimpey / Homes England on a site off Bee Lane, Penwortham and has been completed in general accordance with the following guidance:

-
- CLR11 Model Procedures for the Management of Land Contamination.
 - Environment Agency guidance - Land Contamination: Risk Management (LCRM).
 - BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites.
 - BS5930: 2015 Code of Practice for Ground Investigations.
 - BS EN 1997-1:2004+A1:2013 Eurocode 7. Geotechnical design. General rules plus UK National Annex.
 - BS EN 1997-2:2007 Eurocode 7 Geotechnical design. Ground investigation and testing plus UK National Annex.
 - NHBC Standards. Chapter 4.1: Land Quality - Managing Ground Conditions.
-

Definitions of terms and abbreviations used within this report is presented in Section 11.0.

1.2 Objectives and Scope

The objectives of this Geo-Environmental Assessment were to determine the environmental setting and ground conditions of the site, highlighting potential risks and areas of concern that may govern the development under the current planning regime. This assessment is also intended to fulfil the requirements of a Ground Investigation Report (GIR) as detailed in BS EN 1997-2:2007.

An exploratory intrusive investigation was undertaken to confirm the findings of the preliminary CSM and risk assessment and meet any objectives that had not been satisfied. The exploratory investigation was undertaken using trial pitting, window sampling, cable percussive drilling, gas and groundwater monitoring, laboratory chemical and geotechnical testing, with reporting on the findings.

1.3 Proposed Development

The proposed development is for a residential development to comprise 1100 new homes including a range of one, two, three, four and five bedroom mews, semi-detached, detached and apartment properties, a primary school, a community centre, local facilities, shops and services, public open spaces/play areas and new pedestrian, cycle and vehicle links. Outline planning permission of the site has been submitted in January 2020 (planning ref. 07/2020/00015/ORM). A copy of the masterplan has been provided to BSL by the client and an extract drawing from the Executive Summary is appended for reference.

1.4 Previous Reports

This report should be read in conjunction with the Phase I Desktop Study undertaken by RoC Consulting in September 2018 (ref. MN/AS/p1 3861).

1.5 Limitations

This assessment has been prepared in accordance with the relevant current legislative framework, guidance and risk assessment methodology as outlined in Appendix A. BSL is not liable for any subsequent changes in the guidance and legislation.

The findings and opinions conveyed via this report are based on information obtained from a number of sources as detailed within this report, BSL have assumed this information is correct and reliable. Nevertheless, BSL cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

BSL have used reasonable skill, care and diligence for the investigation of the site and the production of this report. There may be other conditions prevailing on the site which are outside the scope of work and have not been highlighted by this assessment and therefore have not been considered by this report. Responsibility cannot be accepted for such site conditions not revealed by the assessment.

This report has been prepared for the sole use and reliance of the Client, Taylor Wimpey / Homes England. No other third parties may rely upon or reproduce the contents of this report without the written permission of Brownfield Solutions Ltd (BSL). If any unauthorised third party comes into possession of this report, they rely on it at their own risk and BSL do not owe them any Duty of Care.

The investigation carried out on the site has been conducted to provide the best information on the ground conditions within site access and budgetary constraints. The inherent variation of ground conditions allows only for definition of the actual conditions at the locations and depths of exploratory locations at the time of the investigation. Different ground conditions may exist that have not been identified within this investigation.

The recommendations in this report assume that ground levels will remain as existing, unless stated otherwise within the report. If there is to be any re-profiling (e.g. to create development platforms or flood defences) then the recommendations may not apply.

The groundwater results described are only representative of the dates on which they were recorded, and levels may vary seasonally (e.g. due to changes in weather).

This assessment has been based on the proposed planning layouts provided. Any subsequent change to the planning layout may have an impact on the validity of recommendations made within this report. Furthermore, new information, changed practices or new legislation may necessitate revised interpretation of the report after the date of its submission.

Although every effort has been made to position exploratory holes in the least sensitive areas of the site, exploratory hole positions were located approximately as part of this investigation and no guarantee can be given as to their accuracy. Consideration should be given to the possibility that exploratory holes excavated as part of this investigation and indeed any previous ground investigation work by others may be encountered beneath or within the influence of individual foundations. BSL cannot be held responsible for structural failures caused by the location of foundations of any form of structure within the influence of exploratory holes.

Where it has not been possible to reasonably use an EC7 compliant investigation technique, a practical alternative has been adopted to obtain indicative soil parameters and any interpretation is based upon engineering experience, local precedent where applicable and relevant published information.

The chemical testing carried out for this report was not scoped to comply with the requirements of the water supply company and further work may be required, unless otherwise stated.

Notwithstanding site observations concerning the presence or otherwise of archaeological issues, asbestos-containing materials (ACM) or invasive weeds (e.g. Japanese knotweed), this report does not constitute a formal survey of these potential issues.

The site plans enclosed in this report should not be scaled off. Any site boundary line depicted on plans does not imply legal ownership of land.

Any recommendations made in this report should be confirmed with the Regulatory Authorities prior to implementation to ensure compliance.

2.0 THE SITE

2.1 Location

The site is located off Bee Lane, Moss Lane, Flag Lane, Lord's Lane and Nib Lane, Penwortham, PR1 9TU. It is situated approximately 3km south-west of Preston City Centre, centred on National Grid Reference 353236, 426110 as shown on the Site Location Plan, Drawing No. C4259/01.

2.2 Site Description

A walkover survey was carried out on the site during the site investigation between 2nd June 2020 and the 10th July 2020. The main site features and potential issues identified during this survey are detailed below:

Feature	Description
Site Area	The site covers approximately 53 hectares.
Site Access	Access to the site is gained off Bee Lane, Moss Lane, Flag Lane, Lord's Lane and Nib Lane which transect the site.
Current Land Use and Site Features	The site mainly comprises open fields utilised for raising cattle, growing grass for hay/silage and paddocks for horses. An overhead power line is present running through the south-western section of the site in a north-west to south-easterly direction.
Potential Sources of Gross Contamination	Few contaminative processes were recorded on site, and most are likely associated with the use of pesticides. A limited number of slabs and structures were noted within the site boundary and included a Nissen Hut with asbestos roof sheeting recorded in a field along Moss Lane where relic slabs were also noted, a relic slab within a field along Lord's Lane, stable buildings within land off Nib Lane and two garages within land along Bee Lane.
Vegetation	The fields are bound by a mixture of hedgerow, semi-mature and mature trees. A combination of wooden post and rail and post and wire fencing segregate fields within similar land ownership and where paddocks are present.
Topography	The site is relatively flat across large sections, undulated in areas in the west, and generally rises in level from the west to the east.
Site Boundaries	The site is bound by residential properties to the north, the Farrington Connecting Fork / North Union Railway line to the east, farmland from Chain House Lane / Coote Lane to the south and Penwortham Way (A582) to the west.
Surrounding Area	The site is set within a mixed rural and residential area, surrounded by agricultural fields, residential properties, rural industry such as farms, dairies, and engineering works in addition to the railway line to the east.

3.0 PREVIOUS REPORTS

3.1 RoC Consulting (2018)

A Phase I Desktop Study was undertaken by RoC Consulting in September 2018 (ref. MN/AS/p1 3861) for a site boundary which is inclusive of the red line boundary for the site investigation. A summary of the relevant points are provided below:

-
- Earliest mapping records (1848) indicate that the site has remained largely undeveloped as fields or farmland with associated farmsteads until the present day. Mapping records from 1912 indicate a slight increase in the number of farmsteads across the site and the introduction of a drainage channel running across the site from east to west associated with an off-site mill building. A small number of infilled ponds were recorded across the site.
 - Geology comprises Glacial Till deposits (Secondary Undifferentiated Aquifer) over Singleton Mudstone Member (Secondary A Aquifer).
 - No faults are within an influencing distance of the site.
 - The site is not in a Coal Authority reporting area.
 - Numerous surface water features are noted on site in the form of drainage channels, tertiary rivers and ponds. A brook is noted crossing the site from east to west which is believed to be a tributary of 'Mill Brook'.
 - The site is located in an area where groundwater flooding may occur both below ground and at the surface.
 - The site is not located within a flood plain.
 - The site is not located within a Source Protection Zone.
 - A number of potential sources were considered to exist including vehicle repair works (hydrocarbons and PAHs), dairy farm (organic contaminants, heavy metals and pathogens), crop yielding (pesticides and herbicides), and infilled ponds (ground gas).
 - The risk to human health is considered to be low.
 - The development end use risk is high.
 - The risk to controlled waters is low.
 - The risk from ground gas is low and no radon protection measures are required.
-

4.0 METHOD OF INVESTIGATION

4.1 Objectives

To confirm the risks to the identified receptors and confirm the ground conditions in respect to the identified geotechnical and geo-environmental risks, an appropriate intrusive investigation was undertaken as per the recommendations of the Phase I Desk Study Assessment.

The aim of the fieldwork was to:

- Investigate ground conditions on the site and the potential need for detailed investigation.
- Install standpipes to allow future monitoring.
- Assess the potential contamination on the site and obtain samples for contamination screening.
- Assess the potential impact of any contamination on controlled waters.
- Obtain geotechnical information on the ground conditions at the site for preliminary foundation design and preliminary pavement design purposes.
- Give an assessment of the geo-environmental risks associated with redevelopment of the site.
- Provide a preliminary assessment of the suitability of material arising from swales and basins to be re-engineered to form a new highway embankment.

4.2 Site Works

The following site works have been undertaken as part of the intrusive investigation between the dates of 3rd June and 2nd July 2020.

Method	No.	Range Depths (m bgl)	Locations	Purpose
Trial pits – JCB 3CX / 8 Tonne Tracked Excavator	196	1.10 – 3.30	TP01 – TP196	Establish general ground conditions and gain good coverage.
Window sample boreholes – Tracked WS rig	163	1.20 - 5.45	WS01 – WS163	Establish general ground conditions on site. Allow Standard Penetration Tests (SPTs) to be carried out and obtain samples for contamination and geotechnical and testing. Installation of ground gas and water monitoring wells. WS03 placed to target former fuel tank.
Cable percussive boreholes	27	13.33 – 20.45 10.00 – 10.45	CP01 – CP10 BH01 – BH17	Assess deeper ground conditions, carry out SPTs and obtain samples for contamination and geotechnical testing. Installation of ground gas and water monitoring wells.
Plate load tests	10	0.30 – 0.60	PL01 – PL10	Obtain CBR values.
Infiltration tests	12	1.50 – 3.20	SA01 – SA12	Obtain indicative infiltration rates for drainage design.

The surveyed locations of the exploratory holes are indicated on the Exploratory Hole Location Plan, Drawing No C4259/02 Rev E. The exploratory hole logs are presented in Appendix B.

The exploratory holes were logged by an experienced geo-environmental engineer in general accordance with the following guidance:

- BS 5930:2015 Code of Practice for Site Investigations.
- BS EN 14688-1:2018 Geotechnical Investigation and Testing – Identification and classification of soil.

4.3 Sampling

During the drilling of the exploratory holes, representative samples were taken at regular intervals to assist in the identification of the soils and to allow subsequent laboratory testing. They were stored and transported in general accordance with BS 10175:2011+A2:2017.

The type of sample was dependent upon the stratum and the purpose of analysis in accordance with current environmental and geotechnical guidance.

The distribution of samples taken across the site is recorded on the exploratory logs and a summary of the samples taken is presented in the table below:

Type	Number
Environmental (ES)	485
Disturbed (D)	1119
Bulk (B)	73
U100 (U)	63

4.4 Laboratory Testing

Representative disturbed samples were obtained for all soil types encountered. Selected samples were scheduled for testing at an approved laboratory in accordance with BS 1377 'Method of Test for Soils for Civil Engineering Purposes' and BS EN ISO 17892- Parts 1-12:2018 'Geotechnical investigation and testing. Laboratory testing of soil'.

The following tests were scheduled for geotechnical purposes:

Description	No of Samples
Natural Water Content.	95
Plasticity Index Analysis.	95
Particle Size Distribution (PSD).	31
Particle Size Distribution (PSD) via Sedimentation.	14
pH Value.	41
Water Soluble Sulphate Contents.	41
Determination of dry density/moisture content relationship (4.5kg rammer).	10
MCV at as received moisture content	10
Lab Vane at each compaction point	10
Determination of California Bearing Ratio (CBR).	10
Determination of One-Dimensional Consolidation properties.	8
Determination of Undrained Shear Strength in Triaxial Compression.	41

The Geotechnical Laboratory Testing Results are presented in Appendix C.

As part of the initial assessment for potential contamination of the site, selected samples were taken for the purpose of chemical contamination testing.

In the absence of particularly contaminative processes on site and the lack of visual evidence of potential hydrocarbon impactation soil samples from across the site were screened for the following general suite of determinands at a UKAS approved laboratory:

Determinand	No of Samples
BSL Default Soil Suite: Arsenic, Cadmium, Chromium (III), Chromium (VI), Copper, Nickel, Mercury, Lead, Zinc, Selenium, speciated polycyclic hydrocarbons (PAH 16), total phenol, free cyanide, water soluble sulphate (2:1 Extract), soil organic matter and pH.	43
Soil Suite A: Arsenic, cadmium, chromium (total and hexavalent), copper, lead, mercury, nickel, selenium, zinc and pH.	190
Petroleum Hydrocarbons (TPH CWG) inc BTEX and MTBE.	19
Asbestos Screen.	79
Asbestos Quantitative Analysis.	1
PCB Compounds (7 Congeners).	1
Combined Herbicide / Pesticide Screen.	66
GC & LC Pesticide Suite	15
Waste Acceptance Criteria (WAC).	7

The Chemical Laboratory Testing Results are presented in Appendix D.

4.5 Monitoring

In line with current guidance, gas and water monitoring standpipes were installed in 85 boreholes and subsequently six monitoring visits were undertaken over three months, with no further visits scheduled. All gas monitoring was undertaken using GFM436 / GA5000 infrared gas meter with integral electronic flow analyser.

Flow measurements on each standpipe (l/hr) were taken. Measurements of the percentage volume in air (%v/v) of oxygen (O₂), carbon dioxide (CO₂) and methane (CH₄) were recorded in addition to the percentage Lower Explosive Limit (%LEL) of methane (Note: 100% LEL equates to 5% by volume), the atmospheric pressure (mb) and average temperature during the visit (°C).

Standpipes were constructed in general accordance with the relevant guidance. A summary of the installation construction details is presented in the table below:

Location	Depth (m bgl)	Internal Diameter Pipe	Response Zone (m bgl)	Targeted Strata	Purpose
WS01	4.45	35mm PVC	0.50 - 4.00	Clay / Sand	Ground Gas
WS03	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS05	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS09	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS10	4.45	35mm PVC	1.00 - 4.00	Clay / Sand	Ground Gas
WS12	4.45	35mm PVC	0.5 - 4.00	Clay	Ground Gas
WS15	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
BH01	10.15	50mm HDPE	5.00 - 10.00	Clay	Ground Gas / Groundwater
WS16	4.45	35mm PVC	0.50 - 4.00	Clay / Sand	Ground Gas
WS19	4.45	35mm PVC	0.50 - 2.00	Clay	Ground Gas
WS22	4.45	35mm PVC	2.00 - 4.00	Clay	Ground Gas
WS24	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS26	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS27	4.45	35mm PVC	2.00 - 4.00	Clay	Ground Gas
WS28	3.44	35mm PVC	1.40 - 3.00	Clay	Ground Gas
WS29	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS31	4.45	35mm PVC	0.50 - 4.00	Clay / Sand	Ground Gas

Location	Depth (m bgl)	Internal Diameter Pipe	Response Zone (m bgl)	Targeted Strata	Purpose
WS33	4.45	35mm PVC	1.50 - 4.00	Clay	Ground Gas
BH16	10.35	50mm HDPE	3.00 - 10.00	Clay	Ground Gas / Groundwater
WS34	4.45	35mm PVC	0.50 - 4.00	Clay / Sand	Ground Gas
WS35	4.45	35mm PVC	0.30 - 4.00	Clay / Peat	Ground Gas
WS36	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS38	5.45	35mm PVC	3.00 - 4.00	Clay	Ground Gas
WS40	4.45	35mm PVC	0.50 - 4.00	Clay / Peat	Ground Gas
WS44	4.45	35mm PVC	2.00 - 4.00	Clay	Ground Gas
WS46	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS48	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS50	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS52	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
BH08	10.35	50mm HDPE	3.00 - 10.00	Clay	Ground Gas / Groundwater
WS53	4.45	35mm PVC	0.50 - 4.00	Organic clay	Ground Gas
WS55	4.45	35mm PVC	2.50 - 4.00	Clay	Ground Gas
WS54	4.45	35mm PVC	1.00 - 3.00	Clay	Ground Gas
WS56	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS61	4.45	35mm PVC	1.00 - 3.00	Clay	Ground Gas
WS62	4.45	35mm PVC	0.50 - 4.00	Clay	Ground Gas
WS65	4.45	35mm PVC	1.50 - 4.00	Clay	Ground Gas
WS67	4.45	35mm PVC	1.50 - 4.00	Clay	Ground Gas
WS69	4.45	35mm PVC	0.50 - 4.00	Clay	Ground Gas
BH09	10.15	50mm HDPE	5.00 - 10.00	Clay	Ground Gas / Groundwater
WS70	4.45	35mm PVC	0.50 - 2.00	Made ground	Ground Gas
WS71	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS72	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
BH10	10.15	50mm HDPE	3.00 - 10.00	Clay	Ground Gas / Groundwater
WS74	4.45	35mm PVC	1.50 - 4.00	Clay	Ground Gas
WS77	4.45	35mm PVC	1.00 - 4.00	Clay / Peat	Ground Gas
WS75	4.45	35mm PVC	1.50 - 4.00	Clay	Ground Gas
WS81	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS84	4.45	35mm PVC	0.50 - 4.00	Clay	Ground Gas
WS85	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS87	4.45	35mm PVC	1.00 - 4.00	Made ground	Ground Gas
WS89	4.45	35mm PVC	1.50 - 4.00	Clay	Ground Gas
WS91	4.45	35mm PVC	1.00 - 4.00	Clay / Sand	Ground Gas
WS93	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS96	4.45	35mm PVC	0.50 - 2.00	Clay / Peat	Ground Gas
WS97	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS99	4.45	35mm PVC	1.00 - 4.00	Clay / Peat	Ground Gas
BH11	10.05	50mm HDPE	3.00 - 10.00	Clay	Ground Gas / Groundwater
WS101	4.45	35mm PVC	0.50 - 4.00	Clay	Ground Gas
WS103	4.43	35mm PVC	2.00 - 4.00	Clay	Ground Gas
WS104	4.45	35mm PVC	0.50 - 4.00	Clay / Sand / Gravel	Ground Gas
WS106	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS109	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS110	4.45	35mm PVC	0.50 - 4.00	Peat / Clay	Ground Gas
WS112	4.45	35mm PVC	3.00 - 10.00	Clay	Ground Gas
WS117	4.45	35mm PVC	0.50 - 1.00	Sand	Ground Gas
WS120	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS122	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
BH12	10.45	50mm HDPE	5.00 - 10.00	Clay	Ground Gas / Groundwater
BH15	10.45	50mm HDPE	1.00 - 7.00	Clay	Ground Gas / Groundwater

Location	Depth (m bgl)	Internal Diameter Pipe	Response Zone (m bgl)	Targeted Strata	Purpose
WS126	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS127	4.45	35mm PVC	1.00 – 4.00	Clay	Ground Gas
WS128	4.45	35mm PVC	2.00 - 4.00	Clay	Ground Gas
WS132	5.45	35mm PVC	3.00 - 5.00	Clay	Ground Gas
BH14	10.15	50mm HDPE	3.00 - 10.00	Clay	Ground Gas / Groundwater
WS133	4.45	35mm PVC	0.80 - 2.00	Clay / Sand	Ground Gas
WS135	4.45	35mm PVC	0.50 - 4.00	Clay	Ground Gas
WS136	4.45	35mm PVC	0.70 - 4.00	Clay / Sand	Ground Gas
WS151	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS141	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS142	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
BH17	10.45	50mm HDPE	4.00 - 10.00	Clay	Ground Gas / Groundwater
WS146	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS147	4.45	35mm PVC	1.00 - 4.00	Clay	Ground Gas
WS150	4.45	35mm PVC	0.50 - 4.00	Clay	Ground Gas
CP10	13.33	50mm HDPE	10.00 - 12.00	Clay / Sand	Ground Gas / Groundwater

The gas monitoring visits recorded peak and steady state conditions. Peak results are those that occur on opening the valve on the borehole tap. Steady state conditions are those that occur a period of time afterwards when the initial (accumulated) gases have been purged from the borehole.

Final ground gas monitoring results are presented in Appendix G of this report.

5.0 GROUND CONDITIONS

5.1 Made Ground

Made ground was encountered within localised areas across the site, typically associated with relic foundations and fill.

Made ground was encountered from ground level or the base of topsoil at circa 0.10-0.60m bgl. The made ground was noted to be between 0.10m and 0.99m in thickness. Reworked clay was encountered in TP145 from the base of the topsoil to 2.20m bgl, where a drain was encountered.

The composition of the made ground varied across the site given the nature of its localised presence associated with varying different uses across a number of areas.

Hardstanding was generally found to be absent across the majority of the site, with small localised areas of tarmac or paving noted.

A summary of made ground locations and depths are detailed in the table below:

Location	Depth (m)	Strata
TP63	0.00-0.45	MADE GROUND: Gravelly clayey sand. Sand of ash. Gravel of brick, limestone and sandstone with rare slag, plastic and textile cloth.
WS55	0.00-0.10	MADE GROUND: Slightly clayey sand and gravel. Gravel is of sandstone, limestone and tarmac.
WS55	0.10-0.45	MADE GROUND: Slightly clayey sand and gravel. Gravel of sandstone, mudstone and slag.
SA04	0.00-0.25	MADE GROUND: Slightly gravelly clayey sand. Gravel of limestone and brick.
SA04	0.25-0.70	MADE GROUND: Clayey gravel with medium cobble content. Gravel of brick, concrete and limestone. Cobbles are angular of brick.
WS70	0.00-0.20	MADE GROUND: Sandy gravel. Gravel of limestone (Imported MOT).
WS70	0.20-0.50	MADE GROUND: Gravelly sand. Gravel of limestone, ceramic, coal and rare clinker.
WS70	0.50-1.25	MADE GROUND: Silty PEAT with rare ceramic fragments.
WS75	0.60-0.65	MADE GROUND: Gravel. Gravel of brick.
WS75	0.65-1.30	MADE GROUND: Slightly gravelly clayey sand. Gravel of brick and sandstone.
WS87	0.30-1.29	MADE GROUND: Slightly sandy gravelly CLAY. Gravel of brick and ceramic fragments.
TP205	0.30-1.15	MADE GROUND: Slightly sandy gravelly clay. Gravel of brick, ceramic, plastic, and glass / glass bottle.
TP206	0.35-1.25	MADE GROUND: Slightly sandy gravelly clay. Gravel of brick, ceramic, plastic, metal and glass / glass bottle.
TP207	0.30-0.95	MADE GROUND: Slightly sandy clayey gravel. Gravel of brick, ceramic, glass with rare plastic and metal.
TP145	0.28-0.40	MADE GROUND: Reworked gravelly slightly sandy clay.
TP145	0.40-1.20	MADE GROUND: Reworked slightly gravelly slightly sandy clay.
TP145	1.20-2.20	MADE GROUND: Reworked slightly gravelly slightly sandy clay.
WS141	0.00-0.04	MADE GROUND: Paving Slabs.
WS143	0.15-0.70	MADE GROUND: Brick cobbles of 5-15mm in diameter, aligned and mortared (former greenhouse base layer).
BH17	0.00-0.50	MADE GROUND: Gravelly sand. Sand of ash. Gravel of glass, clinker, sandstone and limestone.

Topsoil with anthropogenic inclusions were encountered across the site, a summary of made ground topsoil locations and depths are detailed in the table below:

Location	Depth (m)	Strata
TP172	0.00-0.36	MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone. Made ground topsoil across the site was noted to include varying amounts of the following anthropogenic inclusions: plastic, brick, ceramic, pottery, clinker, tile, wood fragments, and glass.
WS58	0.00-0.25	
WS62	0.00-0.30	
WS64	0.00-0.20	
WS71	0.00-0.40	
WS72	0.00-0.40	
WS73	0.00-0.40	
WS82	0.00-0.20	
WS90	0.00-0.20	
TP117	0.00-0.40	
TP205	0.00-0.30	
TP206	0.00-0.35	
TP207	0.00-0.30	
TP145	0.00-0.28	
TP169	0.00-0.40	
TP187	0.00-0.30	
SA06	0.00-0.40	
SA08	0.00-0.70	
SA08A	0.00-0.80	
WS108	0.00-0.27	
WS136	0.00-0.40	
WS143	0.00-0.15	
WS145	0.00-0.30	
WS159	0.00-0.40	
WS161	0.00-0.20	
WS163	0.00-0.35	

Made ground topsoil was encountered from ground level to circa 0.15-0.80m bgl and was therefore noted to be between 0.15m and 0.80m in thickness.

5.2 Natural Topsoil

Topsoil was encountered across the site from ground level to between 0.10m and 0.70m bgl, generally comprising dark brown slightly gravelly clayey sand with frequent fine rootlets. On average topsoil was found to be 0.35m in thickness.

For the purpose of this assessment, topsoil is defined as the upper darker and more fertile layer of the soil profile which is a product of natural chemical, physical, biological and environmental processes. This does not imply compliance with BS 3882:2015.

5.3 Natural Superficial Strata

The natural strata underlying the site was generally firm to stiff clay with varying amounts of silt, sand and gravel as minor constituents.

Shear vane readings in the cohesive soils indicate the clays are generally medium and high strength.

Loose to very dense sand and sand and gravel were encountered in discrete isolated areas at the following depths and locations within the firm to stiff clay:

Location	Depth (m)	Strata
WS82	0.20-0.50	Gravelly SAND.
WS114	0.20-0.80	Clayey SAND.
WS115	0.20-1.30	Gravelly clayey SAND.
WS58	0.25-0.40	Silty SAND.
WS31	0.25-0.50	Slightly gravelly clayey SAND.
WS117	0.25-1.30	Gravelly SAND with pockets of clay.
TP31	0.30-0.45	Gravelly clayey SAND.
TP161	0.30-0.45	Silty SAND.
WS30	0.30-0.50	Slightly gravelly clayey SAND.
WS32	0.30-0.50	Gravelly clayey SAND.
TP160	0.30-0.50	Silty SAND.
TP166	0.30-0.60	Silty SAND.
TP33	0.35-0.55	Very gravelly SAND.
SA01	0.35-0.65	Slightly gravelly clayey SAND.
WS136	0.40-0.45	Slightly gravelly clayey SAND.
WS54	0.40-0.50	Slightly gravelly clayey SAND.
TP61	0.40-0.85	Very clayey SAND.
WS157	0.40-1.00	Gravelly SAND.
WS130	0.40-1.10	Slightly gravelly clayey SAND.
WS86	0.43-0.60	Loose to dense gravelly clayey SAND.
WS74	0.50-0.70	Silty SAND. e.
CP07	0.50-0.70	SAND.
WS34	0.52-0.54	Loose to medium dense slightly gravelly clayey SAND.
WS119	0.56-0.62	Slightly gravelly clayey SAND.
WS47	0.58-0.92	Clayey silty SAND.
WS41	0.59-0.90	Medium dense slightly gravelly clayey SAND.
WS56	0.60-0.67	Slightly gravelly clayey SAND.
WS125	0.62-0.80	SAND.
WS01	0.68-0.86	Slightly gravelly clayey SAND.
WS72	0.70-0.90	Slightly gravelly clayey SAND.
WS73	0.70-0.90	Gravelly SAND.
WS58	0.80-0.85	SAND.
WS136	0.80-0.90	Slightly gravelly clayey SAND.
WS16	0.90-1.00	Slightly gravelly clayey SAND.
TP142	0.90-1.00	Slightly gravelly clayey SAND.
WS99	0.90-1.10	SAND.
WS78	0.90-1.30	Grey slightly gravelly clayey SAND.
WS04	0.94-1.00	Slightly gravelly clayey SAND.
WS58	1.10-1.15	SAND.
WS133	1.30-1.50	Medium dense clayey very gravelly SAND.
WS123	1.36-1.74	Medium dense SAND.
WS91	1.40-1.50	Loose SAND.
WS32	1.40-2.00	Medium dense clayey SAND.
BH17	1.50-2.00	Loose very gravelly clayey SAND.
WS100	1.60-1.65	SAND.
WS91	1.90-2.10	SAND.
WS42	2.10-2.25	Medium dense slightly gravelly clayey SAND.
WS104	2.20-2.40	Medium dense SAND and GRAVEL.
WS104	2.80-3.80	Medium dense very gravelly SAND.
WS16	3.10-3.20	Medium dense SAND.
WS10	3.40-3.42	Loose to medium dense slightly gravelly SAND.
CP10	12.30-13.33	Very dense SAND.
CP06	13.50-14.20	Dense SAND and GRAVEL.
CP02	13.80-13.95	Dense brown fine to coarse SAND.

Location	Depth (m)	Strata
CP06	14.80-16.95	Dense SAND and GRAVEL with medium cobble content.
CP01	15.70-16.00	Sandy GRAVEL with high cobble content.
CP01	18.00-19.38	Dense to very dense gravelly SAND.

Generally, a sand-based subsoil was identified beneath the topsoil sporadically across the site, and within isolated lenses within the clay. Increasing thicknesses of sand with increasing strength were identified within cable percussive boreholes at depths from 12.30m bgl and 15.70m bgl, noted to be 31.37m AOD and 30.53m AOD and proven up to 2.15m in thickness. Where sand was encountered in cable percussive boreholes this typically represented dense to very dense granular deposits with an 'N' value of 50.

5.4 Natural Peat Deposits

Natural peat deposits were encountered sporadically across the site generally noted to be more present in the north and centre of the site and with no evidence of peat encountered in the east and south-east of the site.

Location	Depth (m)	Strata
TP34	0.75-0.88	Soft spongy fibrous PEAT.
TP170	0.52-0.75	Firm dark slightly gravelly slightly sandy spongy fibrous PEAT.
WS35	0.79-0.82	Firm slightly sandy clayey spongy fibrous PEAT.
WS40	0.38-1.00	Firm slightly sandy clayey spongy fibrous PEAT.
WS40	1.91-2.72	Soft slightly sandy clayey spongy fibrous PEAT.
TP42	0.45-0.60	Soft slightly sandy clayey spongy fibrous PEAT.
WS53	0.40-0.80	Firm to stiff slightly sandy organic silty CLAY with rare gravel. Sand is fine to coarse.
WS56	0.27-0.60	Firm to stiff slightly gravelly slightly sandy silty CLAY interbedded with a spongy fibrous sandy PEAT.
WS57	0.75-1.10	Firm to stiff slightly gravelly slightly sandy silty CLAY interbedded with a spongy fibrous slightly sandy PEAT.
WS58	0.85-0.89	Spongy fibrous silty PEAT.
WS58	1.15-1.20	Spongy fibrous silty PEAT.
WS70	0.50-1.25	MADE GROUND: Spongy fibrous silty PEAT with rare ceramic fragments.
WS76	0.90-1.10	Spongy fibrous silty PEAT.
WS77	1.50-2.00	Plastic fibrous PEAT with wood fragments.
WS78	0.70-0.90	Spongy fibrous PEAT.
TP101	0.90-1.00	Spongy fibrous PEAT. Wood fragments visible.
TP104	1.10-1.25	Spongy fibrous PEAT.
TP105	0.80-1.10	Dark brown spongy fibrous PEAT.
WS95	0.59-0.78	Firm slightly sandy spongy fibrous PEAT.
WS96	0.63-1.54	Firm dark slightly sandy spongy fibrous PEAT.
WS98	0.60-0.90	Firm slightly sandy spongy fibrous PEAT.
TP124	1.10-1.30	Spongy fibrous PEAT.
TP125	1.10-1.25	Spongy fibrous PEAT.
TP130	0.80-1.00	Spongy fibrous PEAT.
WS99	0.60-0.90	Plastic fibrous silty PEAT.
WS110	0.52-0.62	Spongy fibrous PEAT.

Peat, where encountered, was noted to be between 0.03m and 1.43m in thickness. The greatest depth of peat was encountered within WS40 in the centre of the site, noted to be within close proximity to a potentially infilled pond present on historical mapping. The peat in WS40 was identified in two bands up to a maximum depth of 2.72m bgl and a combined thickness of 1.43m.

Generally, the peat was noted to be 0.30m in thickness and encountered at depths between 0.80m and 1.10m bgl.

A drawing illustrating the indicative location and thickness of peat encountered across the site is shown on the Peat Location Plan (ref. C4259/03).

5.5 Solid Geology

The solid geology of the Singleton Mudstone Member was not encountered in this investigation.

5.6 Groundwater

Groundwater was encountered in thirty-four exploratory holes during the site investigation and within eighty-three monitoring wells during subsequent gas and groundwater level monitoring to date. The depths and locations are shown in the table below:

Location	Depth during site works (m)	Depth during monitoring period (range) (m)
BH01	-	GL-1.22
BH08	-	GL-3.45
BH09	8.50 – large seepage	GL-2.47
BH10	9.00 – large seepage	0.17-7.15
BH11	9.00 – large seepage	-
BH11	-	0.22-2.07
BH12	-	GL-1.47
BH13	5.50 – large seepage	-
BH14	-	GL-7.45
BH15	2.70 – medium seepage	0.54-1.43
BH16	4.30 – large seepage	0.59-1.48
BH17	-	GL-1.21
CP01	8.00 – large seepage	-
CP02	13.50 – large seepage	-
CP04	6.80 – large seepage	-
CP06	13.50 – large seepage 14.20 – large seepage	-
CP10	10.00 – large seepage	3.00-9.91
TP170	1.00 – small seepage	-
TP171	0.18 – small seepage	-
TP175	1.10 – small seepage	-
TP206	1.20 – small seepage	-
WS01	-	GL-2.64
WS03	-	GL-2.87
WS05	-	GL-2.31
WS09	-	GL-1.45
WS10	3.40 – small seepage	GL-1.02
WS12	1.30 – small seepage	0.40-3.72
WS15	-	GL-1.53
WS16	-	GL-0.67
WS19	-	0.27-0.37
WS22	3.20 – small seepage	0.89-1.02
WS24	-	GL-1.56
WS26	-	GL-0.57
WS27	-	GL-2.87
WS28	2.00 – small seepage	0.40-0.56
WS29	-	GL-0.72

Location	Depth during site works (m)	Depth during monitoring period (range) (m)
WS31	-	GL-0.62
WS32	1.80 – small seepage	-
WS33	-	0.57-0.66
WS34	-	GL-0.68
WS35	-	GL-0.63
WS36	-	GL-1.11
WS38	-	GL-0.15
WS40	1.00 – small seepage	GL-0.45
WS41	3.50 – small seepage	-
WS42	2.00 – small seepage	-
WS44	-	0.50-0.56
WS46	-	0.50-3.07
WS48	-	GL-2.81
WS50	-	GL-3.45
WS52	-	GL-1.89
WS53	-	GL-2.70
WS54	-	GL-0.93
WS55	-	0.10-1.04
WS56	-	GL-0.98
WS61	-	GL-0.66
WS62	-	0.54-2.76
WS65	-	GL-1.84
WS67	-	GL-3.22
WS69	-	GL-1.56
WS70	-	0.25-0.73
WS71	-	GL-1.09
WS72	-	GL-1.39
WS74	-	0.24-3.10
WS75	1.30 – small seepage	GL-0.65
WS77	-	GL-0.98
WS81	-	GL-3.17
WS84	-	GL-2.98
WS85	-	0.60-3.09
WS87	-	0.55-0.82
WS89	-	0.34-1.90
WS91	-	0.49-0.77
WS93	-	0.38-1.21
WS96	-	GL-0.51
WS97	-	GL-0.55
WS99	1.00 – small seepage	GL-0.75
WS100	0.80 – small seepage	-
WS100	1.60 – small seepage	-
WS101	-	GL-1.64
WS103	-	0.60-2.52
WS104	2.20 – small seepage 2.80 – small seepage	GL-1.47
WS106	-	0.10-1.87
WS109	-	0.16-2.97
WS110	-	0.22-0.42
WS112	-	GL-3.94
WS117	-	GL-1.18
WS120	-	GL-1.28
WS122	-	GL-3.94

Location	Depth during site works (m)	Depth during monitoring period (range) (m)
WS126	-	GL-1.86
WS128	-	GL-1.34
WS132	-	1.34-1.5
WS133	-	1.86-1.86
WS135	-	0.41-0.44
WS136	-	GL-0.3
WS141	-	GL-2.96
WS142	-	GL-0.65
WS146	-	GL-0.64
WS147	-	GL-9.76
WS150	-	GL-3.45
WS151	-	GL-0.81

5.7 Observations

Contamination

During the works undertaken by BSL, observations for both visual and olfactory evidence of contamination were undertaken.

With the exception of ash and clinker observed as a minor constituent in the made ground soils, no other evidence of contamination was recorded at the site.

Excavations

The sides of the trial pits were generally stable throughout.

The stiff nature of the clay across the site proved difficult to excavate at depth.

6.0 GEOTECHNICAL TEST RESULTS

6.1 In Situ Geotechnical Testing

In Situ Hand Shear Vane Tests

Five hundred and sixty-four hand shear vane tests were carried out on suitable cohesive soils recovered from the trial pits. Each shear vane result recorded represents the mean value of three tests undertaken at the specified depth.

The results and distribution of the hand shear vane tests are recorded in kPa on the Exploratory Hole Logs which are presented in Appendix E.

In Situ Standard Penetration Tests

Standard Penetration Tests (SPTs) were carried out within the window sample and cable percussive boreholes at regular 1.0m to 1.5m intervals. The results of the individual blows and the N-values are recorded on the Exploratory Hole Logs.

All SPT N values are uncorrected. Density and strength descriptors are reported in accordance with the guidelines stated in BS 5930:2015, incorporating requirements of BS EN ISO 14688-1:2002, BS EN ISO 14688-2:2004 and BS EN ISO 14689-1:2003.

6.2 Laboratory Geotechnical Testing

Plasticity Index Analysis

Plasticity index results ranged between 12% and 31% indicating the clays to be of low to high plasticity. Associated water contents ranged between 6.9% and 36%.

After modification of particle size in accordance with NHBC Chapter 4.2 the modified plasticity indices are in the range 11% to 31% indicating the soils to be of low to medium volume change potential.

Undrained Shear Strength

Undrained shear strength in triaxial compression ranged from 13 to 170kPa indicating the clays to range between very low to very high strength, but are generally in the range of medium to high strength. The results of the tests are shown in the table below:

Location	Depth (m)	Shear Strength (kPa)	Undrained Shear Strength to EC7
BH01	3.3-3.75	52	Medium
BH01	7-7.45	61	Medium
BH02	1.2-1.65	111	High
BH02	5.5-5.95	83	High
BH04	3.2-3.65	118	High
BH04	8.3-8.75	79	High
CP01	4-4.45	40	Low / Medium
CP01	7.5-7.95	62	Medium
CP02	3-3.45	97	High
CP02	7.5-7.95	13	Very Low
BH05	3.2-3.65	118	High
BH06	4.4-4.85	47	Medium
BH16	5.5-5.95	44	Medium
CP03	3.0-3.45	112	High
CP03	6-6.45	54	Medium
BH07	3.30-3.75	120	High
BH07	6.90-7.35	72	Medium

Location	Depth (m)	Shear Strength (kPa)	Undrained Shear Strength to EC7
CP04	5.00-5.45	54	Medium
BH08	3.2-3.65	37	Low
BH08	7-7.45	56	Medium
BH09	5.5-5.95	70	Medium
CP05	6.00-6.45	22	Low
CP05	9.00-9.45	67	Medium
BH10	3.30-3.75	83	High
BH10	7.00-7.45	95	High
CP06	4.00-4.45	82	High
CP06	10.50-10.95	67	Medium
BH11	4.40-4.85	102	High
BH12	2.20-2.65	117	High
BH12	8.50-8.95	46	Medium
BH13	7.10-7.55	58	Medium
BH15	7.10-7.55	88	High
CP07	5.00-5.45	47	Medium
CP08	9.00-9.45	58	Medium
CP09	7.50-7.95	53	Medium
CP09	12.00-12.45	81	High
BH14	2.30-2.80	170	Very High
BH14	3.40-3.85	58	Medium
BH17	4.50-5.00	97	High
BH17	8.50-9.00	90	High
CP10	3.00-3.45	92	High
CP10	6.00-6.45	54	Medium

One Dimensional Consolidation Properties

The one-dimensional consolidation properties are as follows:

Location	Depth (m)	Mv Range (m ² /MN)	Cv Range (m ² /yr)	Compressibility
BH12	8.50-8.95	0.0013-0.35	0.54-3.1	Very Low to High
BH13	1.20-1.65	0.015-0.33	1.2-2.6	Very Low to High
BH15	1.20-1.65	0.015-0.22	2.8-16	Very Low to Medium
BH15	7.10-7.55	0.015-0.27	2.2-2.7	Very Low to Medium
CP07	5.00-5.45	0.006-0.49	0.69-4.8	Very Low to High
CP08	5.00-5.45	0.015-0.37	0.77-0.83	Very Low to High
CP09	3.00-3.45	0.021-0.58	4.2-48	Very Low to High
CP09	5.00-5.45	0.0018-0.65	1.3-2.6	Very Low to High

Dry Density/Moisture Content

Dry Density/Moisture Content relationship testing was carried out on 10 samples of clay/silt located in the areas of the proposed swales / basins under heavy compaction (4.5kg). The samples and the results are as follows.

Location and depth (m)	Particle Density (Mg/m ³)	Maximum Dry Density (Mg/m ³)	Initial Moisture Content (%)	Optimum Moisture Content (%)
SA06 1.00	2.72	1.98	18	14
SA07 1.00	2.72	1.83	20	13
SA08A 2.00	2.72	1.78	29	16
SA09 0.80	2.70	1.96	15	13
TP135 2.00	2.75	1.83	27	16

Location and depth (m)	Particle Density (Mg/m ³)	Maximum Dry Density (Mg/m ³)	Initial Moisture Content (%)	Optimum Moisture Content (%)
TP138 1.10	2.70	1.93	17	11
TP158 1.50	2.70	2.00	15	10
TP163 1.50	2.75	1.98	19	12
TP165 2.00	2.75	1.82	25	18
TP166 1.50	2.75	1.99	18	11

Lab Shear Vane

Lab Shear Vanes have been undertaken at each compaction point for the above Dry Density / Moisture Content relationship testing and were as follows:

Location and depth (m)	Moisture Content / Average Shear Vane Reading				
SA06 1.00	10% / UTP	12% / UTP	14% / UTP	17% / 130 kPa	19% / 76 kPa
SA07 1.00	8.3% / UTP	11% / UTP	13% / UTP	15% / UTP	20% / UTP
SA08A 2.00	12% / UTP	15% / UTP	17% / UTP	20% / 130 kPa	25% / 93 kPa
SA09 0.80	8.5% / UTP	10% / UTP	13% / UTP	15% / 130 kPa	16% / 78 kPa
TP135 2.00	13% / UTP	15% / UTP	16% / UTP	19% / UTP	21% / UTP
TP138 1.10	6.7% / UTP	8.9% / UTP	11% / UTP	14% / 130 kPa	19% / 100 kPa
TP158 1.50	6.8% / UTP	8.7% / UTP	10% / UTP	14% / UTP	16% / 130 kPa
TP163 1.50	7.1% / UTP	9.9% / UTP	12% / UTP	14% / UTP	17% / 130 kPa
TP165 2.00	12% / UTP	14% / UTP	18% / UTP	21% / 117 kPa	27% / 56 kPa
TP166 1.50	7.0% / UTP	8.2% / UTP	11% / UTP	14% / UTP	16% / 130 kPa

NB: UTP – Unable to penetrate.

6.3 Aggressive Ground Conditions

pH testing was undertaken on 206 samples of made ground / topsoil and 64 samples of natural superficial deposits, whilst water soluble sulphate testing was undertaken on 42 samples of made ground / topsoil and 40 samples of natural superficial deposits.

Made Ground

The results revealed soluble sulphate (SO₄) contents of between 0.0014g/l and 0.13g/l. Associated pH values were obtained which ranged between 5.3 and 9.1 indicating slightly acid and slightly alkaline conditions.

Natural Strata

The results revealed soluble sulphate (SO₄) contents of between 0.0077g/l and 0.15g/l. Associated pH values were obtained which ranged between 5.3 and 8.8 indicating slightly acid and slightly alkaline conditions.

6.4 Soil Infiltration Test Results

Soil infiltration test tests were undertaken within trial pits at 12 locations across site, a summary of the results is presented in the table below. These were carried out in general accordance with BRE Digest 365 (BRE 2016) where infiltration rates allow three test runs during a working day (or where there is no infiltration), but where low infiltration rates were encountered the available time may not have been sufficient to fully comply with the BRE test method.

Where less than three tests were possible in a particular location the results provided should be considered as indicative only. Further discussion concerning the suitability of infiltration testing at the site is provided in Section 7.9.

Location	Stratum Type	Depth (m)	Infiltration Rate (m/sec)		
			Test 1	Test 2	Test 3
SA01	SI gravelly SI sandy CLAY	2.00	2.37x10 ⁻⁷	-	-
SA02	SI gravelly SI sandy CLAY	2.05	Could not be calculated (negligible infiltration)		
SA03	SI gravelly SI sandy silty CLAY	2.90	Could not be calculated (negligible infiltration)		
SA04	SI gravelly SI sandy CLAY	3.60	Could not be calculated (negligible infiltration)		
SA05	SI gravelly SI sandy CLAY	1.80	1.69x10 ⁻⁶	-	-
SA06	SI gravelly SI sandy silty CLAY	2.05	Could not be calculated (negligible infiltration)		
SA07	SI gravelly SI sandy CLAY	3.10	Could not be calculated (negligible infiltration)		
SA08A	SI gravelly SI sandy silty CLAY	3.30	Could not be calculated (negligible infiltration)		
SA09	SI gravelly SI sandy CLAY	3.20	Could not be calculated (negligible infiltration)		
SA10	SI gravelly SI sandy CLAY	3.10	Could not be calculated (negligible infiltration)		
SA11	SI gravelly SI sandy CLAY	1.70	Could not be calculated (negligible infiltration)		
SA12	SI gravelly SI sandy CLAY	2.50	7.84x10 ⁻⁸	-	-

The full test results are presented in Appendix E.

6.5 Borehole Permeability Test Results

The results of permeability testing in boreholes using falling head test methods are presented in the table below:

Location	Response Zone	Stratum Type	Hydraulic Conductivity (m/sec)
WS38	3.00 – 5.00	SI sandy silty CLAY	2.86 x 10 ⁻⁹
WS53	0.50 – 4.00	SI gravelly sl sandy CLAY	1.43 x 10 ⁻⁸
WS61	1.00 – 3.00	SI sandy CLAY	Could not be calculated*
WS120	0.50 – 4.00	SI gravelly sl sandy CLAY	5.09 x 10 ⁻⁹
WS132	3.00 – 5.00	SI gravelly sl sandy silty CLAY	Could not be calculated*

*Negligible infiltration

The full test results are presented in Appendix E.

6.6 CBR Results

The CBR results from in situ testing on undisturbed soils are summarised below:

Method	Location	Stratum Type	CBR (%)	Modulus Subgrade Reaction K ⁷⁶² (kN/m ² /mm)
Plate Load Test	PL01	SI sandy gravelly CLAY	9.6	53.71
	PL02	SI gravelly sl sandy CLAY	6.0	40.78
	PL03	SI sandy gravelly CLAY	3.7	30.84
	PL04	SI sandy gravelly CLAY	5.5	38.79
	PL05	SI gravelly sl sandy CLAY	4.2	33.32
	PL06	SI sandy gravelly CLAY	13.2	64.66
	PL07	SI gravelly sl sandy CLAY	3.3	28.85
	PL08	SI gravelly sl sandy CLAY	4.0	32.33
	PL09	SI gravelly sl sandy CLAY	6.1	41.28
	PL10	SI gravelly sl sandy CLAY	5.1	37.30

The results of plate load tests are presented in Appendix F.

Laboratory derived CBR values are summarised below, which were undertaken on disturbed bulk samples compacted with a standard effort using a 4.5kg rammer:

Method	Location	Stratum Type	Depth (m)	Average CBR (%)
Lab derived California Bearing Ratio	SA06	SI sandy clayey SILT	1.00	5.65
	SA07	SI sandy silty CLAY.	1.00	11.0
	SA08A	SI sandy silty CLAY	2.00	2.4
	SA09	SI sandy silty CLAY	0.80	14.0
	TP135	SI sandy silty CLAY	2.00	4.65
	TP138	SI sandy clayey SILT	1.10	4.1
	TP158	SI sandy silty CLAY	1.50	25.0
	TP163	SI sandy clayey SILT	1.50	4.9
	TP165	SI sandy silty CLAY	2.00	2.15
	TP166	SI sandy silty CLAY	1.50	4.3

Results are presented in Appendix C.

7.0 GEOTECHNICAL ASSESSMENT

7.1 Ground Model Summary

The site mainly comprises open fields utilised for raising cattle, growing grass for hay/silage and paddocks for horses. The vast majority of the site has seen little development through time.

Made ground was encountered in isolated areas of the site and limited hardstanding was noted. Made ground was noted to vary in composition and where encountered was between 0.10m and 0.99m in thickness. Former ponds are also present in a number of locations.

The natural strata encountered was generally medium and high strength clays with sand bands. Sand and gravel bands were encountered to be of greater thickness and density with depth, and generally more frequently encountered at depths below 12.00m bgl.

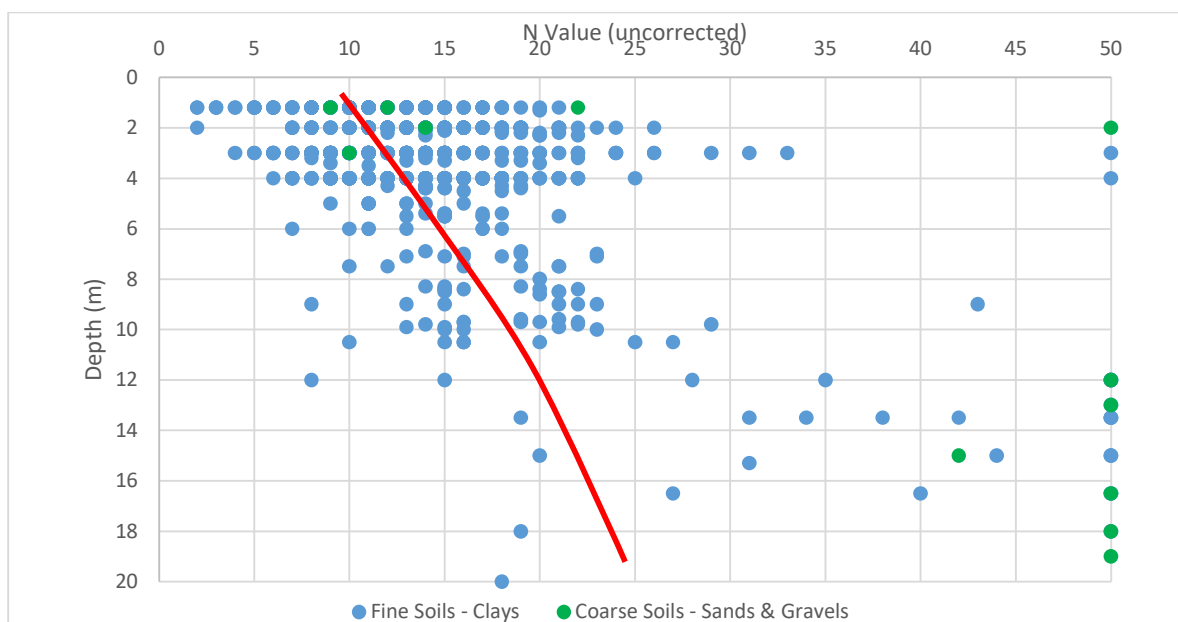
Peat deposits have been identified sporadically across the site, typically ranging in thickness, where present, from 0.03m to 1.43m, and typically encountered within the top metre of ground. See drawing C4259/03 Peat Location Plan for reference.

Groundwater strikes recorded during site works ranged between 0.18m and 14.20m bgl, likely associated with sand bands within the clay. Post site works monitoring has revealed levels between ground level and 9.91m bgl.

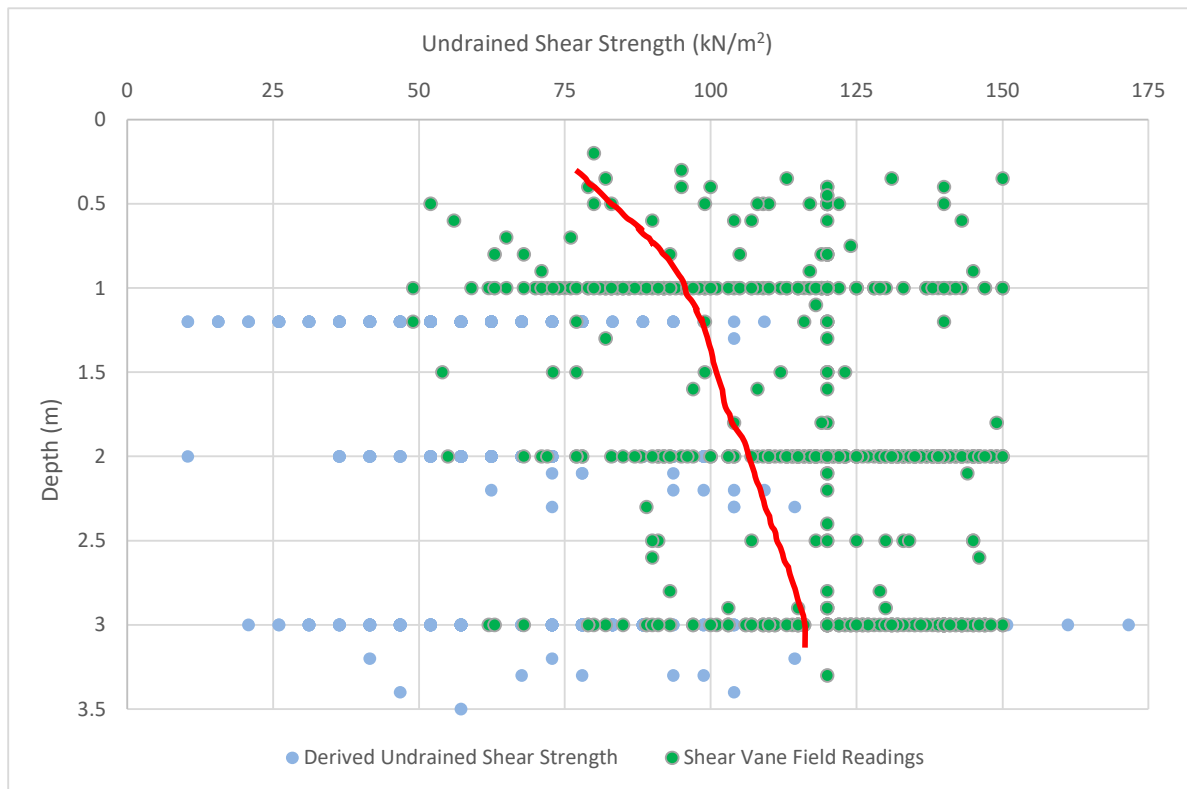
Historic mapping for the site has indicated the presence of a Culvert within a parcel of lab to the north of Nib Lane, although a GPR survey did not provide any evidence of such culvert. The possible presence of a culvert will need to be taken into consideration for foundation design. Historical ponds are also noted on mapping.

7.2 Soil Parameters

The test results have been evaluated to derive geotechnical soil parameters for the site. A depth vs SPT N value graph is provided below to provide a profile of the ground conditions underlying the site. This generally indicate an increase in soils strength with depth. Note coarse soils are generally limited spatially laterally and vertically in extent.



For cohesive (fine) soils, the equivalent approximate undrained shear strengths (C_u) have been calculated from the recorded SPT N values, adopting values respectively, based on the correlation of Stroud (1975) and the 'average' plasticity. These are plotted on the graph below alongside hand shear vane readings.



Characterisation of the geotechnical parameters above has been undertaken to obtain a characteristic value, which is a cautious estimate of the value affecting the occurrence of the limit state.

The characteristic value for undrained shear strength in clays at 1.00m across the site is interpreted to be 90kN/m², increasing to 110N/m² at 2.00m. However, it is noted that there are localised lower strength cohesive materials (but still generally medium strength and above) alongside low strength peat deposits, which will need to be considered as part of detailed foundation design.

7.3 Foundations

The development will comprise traditional two storey residential housing with isolated buildings with high loads (i.e. a Primary School, Community Centre and local facilities) and is considered to be classed as Geotechnical Category 2 in accordance with Eurocode 7.

Preliminary design by calculation has been undertaken to determine the design resistance of the bearing strata in the following section. No detailed/finalised development layouts or proposed structural loads were available at the time of writing, therefore the following recommendations are provisional and should be reviewed at the detailed design stage. However, for the purpose of this assessment a typical load of 50kN has been assumed per storey.

Any variance to existing levels as part of the development will likely influence founding depths and should be considered at the detailed design stage.

Shallow Foundations – Strip

The most suitable foundations for the proposed residential homes are considered to be strip or trench fill foundations at a minimum depth of 0.90m bgl based on the medium volume change potential clays and deeper near trees and hedges in accordance with NHBC Chapter 4.2.

Based on the derived geotechnical parameters, an allowable bearing capacity of 200 kN/m² should be available for strip foundations founded on the undisturbed natural clays, assuming they have a minimum soils strength of 90kPa, at a minimum depth of 0.90m. This will increase to 250 kN/m² for foundations at 2.00m. This is calculated based on global factor of safety of 3 which should be limit settlements to be within acceptable limits. As stated in Section 7.2, there are localised lower strength materials (but still generally medium strength and above) which will need to be considered as part of detailed foundation design and scheduling. Where medium strength soils are encountered at 0.90m bgl, an allowable bearing capacity of 130kN/m² should be assumed (based on a conservative lower estimate of 60kPa soil strength).

Historic mapping for the site has indicated the presence of a Culvert within a parcel of land to the north of Nib Lane, although a GPR survey did not provide any evidence of such culvert. The potential presence of a culvert will need to be considered when designing the foundations. If located, it is inadvisable for construction to be undertaken over the culvert, foundations will either need to be taken to below the base of the culvert or situated 3 to 4 times the breadth of the foundation away from the feature, this would ensure that the culvert is outside the pressure bulb of the foundation and that no load is being transferred to it.

The presence of former ponds on historic mapping will also need to be considered during detailed foundation design and scheduling

Trees are noted within and close to the area of the site proposed for development. Depending on their size, type and maturity, the required depth of founding based on the recommendations of NHBC Chapter 4.2 may exceed 2.5m. Should this prove to be the case, then piled foundations should be considered, unless it can be proven that the soils are not desiccated. Note where foundations require deepening to greater than 2.5m below ground level, they must be designed by an engineer, as specified in NHBC Technical Requirement R5.

Peat Deposits

Given the compressible nature of peat over time and seasonally, foundations will have to be deepened locally to found on suitable clay of at least medium strength beneath.

Dependant on requirements, it may be feasible to over excavate into the underlying superficial deposits to remove the peat deposits entirely, thus removing the development constraint. It is recommended this material should be replaced with an engineered fill placed to a suitable engineering specification, this should include validation testing to confirm end performance,. Following this, raft or semi raft foundations could be constructed within the engineered fill, or alternatively piles or vibro improvement methods could be adopted.

General Advice for Shallow Foundations

The bearing stratum should be inspected for 'soft spots' within the natural clay strata, resulting for instance from localised groundwater perched within the overlying fill materials. If soft soils are encountered, then foundations will need to be deepened to found on suitable strata.

If the ground conditions encountered during the construction phase differ significantly to the conditions encountered during construction, work should cease and BSL contacted for further advice.

Piles

It is considered unlikely that the loads exceed allowable bearing capacities for traditional foundations. However, if this is the case (e.g. schools or other commercial structures with high loadings) then consideration should be given to piled foundations.

Whilst no proposed loadings are known at this stage, the information on the borehole logs should be sufficient for preliminary pile design by a suitably competent engineer if required and once loadings are known.

Note that prior to the commencement of any piling works, a working platform will be required for tracked plant. This should be designed and installed in accordance with BR470 (BRE 2004) based on the plant requirements, data and rig loadings.

7.4 Building Near Trees

The clay soils on site are of medium volume change potential. Where foundation excavations (or piles if adopted) encounter cohesive strata in the vicinity of existing, proposed or recently removed trees, foundations should be adjusted in full accordance with NHBC Standards Chapter 4.2. All foundations should be deepened below roots of greater than 5mm diameter during excavations for footings.

A survey of all trees and hedges on the site and within influencing distance of the site boundary should be undertaken to identify tree species and heights by a qualified arboriculturist in accordance with BS 5837:2012. This information will be required in order to assess the effects of trees on the cohesive strata.

Where foundation depths due to trees already present or recently removed exceeds 1.50m there is a possibility for heave to occur on removal of the tree and guidance states that compressible material or void former is required against the inside face of the foundation / ground beam.

7.5 Floor Slabs

Suspended floor slabs may be adopted, where the required void size for beneath a precast concrete floor (i.e. beam and block) on this site is 250mm.

Alternatively, ground bearing slabs could be adopted providing the following criteria are satisfied:

-
- The foundation depth (such as due to the influence of trees) is less than 1.5m.
 - The depth of fill is <600mm.
 - Any fill beneath the slab is suitable, well-compacted granular material placed in an appropriate thickness in accordance with a suitable specification with the end performance validated.
 - It is demonstrated that desiccation in cohesive soils is not present.
 - Any compressible or unsuitable materials are excavated and either improved or removed and replaced with suitable materials.
 - The slab is adequately reinforced.
 - Regular construction joints and ties are provided to allow for differential settlement.
-

The final floor slab design should be of sufficient thickness and sufficiently reinforced to accept the envisaged applied loads, without unacceptable total or differential movement.

It should be noted that the clays beneath the site are of medium volume change potential and heave protection measures may be required, dependant on the floor slab build up.

Prior to the placement of the founding materials and the construction of a ground bearing floor slab, the sub-formation and formation will need to be inspected and checked by a geotechnical engineer to ensure the ground conditions are as expected. If soft spots are identified at the formation level they should be reported to the Geotechnical Engineer immediately and remedial actions agreed.

Ground floor slabs should also be designed to incorporate any ground gas protections measures, although the requirement for gas protection measures is subject to ongoing monitoring and regulatory confirmation.

7.6 Site Preparation and Construction

Topsoil and subsoil should be removed from beneath all buildings and hardstanding areas.

If organic soils or peat is encountered below proposed structures, these will need to be removed and replaced with suitably compacted material.

There are a number of below ground services crossing the site including a culvert, electricity cable, gas and BT. Where located within the development area, to allow construction, all services will need to be disconnected and any suspected dead services are confirmed as dead by testing.

Instability of excavations through natural soils is not anticipated provided they are not exposed to adverse weather conditions for any substantial period of time. Instability of the made ground should be allowed for. All excavations should be carried out in accordance with CIRIA Report 97 'Trenching Practice'.

Excavation depths should generally be readily achieved using conventional plant (JCB or similar) although high specification plant (tracked 360° or similar) is recommended to maintain the build programme.

Peat deposits have been encountered below the development area of the site, these vary in composition and thickness between 0.03m in WS35 to 1.43m in WS40. Both made ground and the Peat deposits are considered to be highly susceptible to consolidation settlement over time, which is likely to lead to unacceptable total and differential settlements for proposed structures and drainage infrastructure.

Dependant on requirements, it may be feasible to over dig into the underlying superficial deposits to remove the peat deposits entirely and then replaced with suitable materials in an engineered manner, thus removing the development constraint.

The presence of peat in excess of 0.50m in areas of the site should be taken into consideration during the design of drainage, which may include flexible joints to allow for some differential settlement, unless the development constraint is removed by excavation.

It should be noted that undertaking treatment locally or using deepened foundations (i.e. focussing only on the footprint of structures) means that the surrounding areas (roads, gardens and landscaping) are also likely to settle relative to the structures if disturbed. This risk can be mitigated by undertaking more widespread ground improvement through techniques such as dynamic compaction, surcharging or excavation and re-compaction.

Recorded post site works groundwater levels ranged between ground level and 9.91m bgl and therefore may be encountered within likely excavation depths. Based on the exploratory holes logs and monitoring, it is considered that methods such as sump pumping are likely to be sufficient to deal with anticipated flows. A specialist dewatering contractor should be consulted for advice in this instance. Further guidance is provided in CIRIA C750 "Groundwater Control: Design and Practice". It should be noted that groundwater levels will vary seasonally and the timing of construction may influence requirements.

7.7 Concrete Classification

Laboratory pH testing was undertaken on 206 samples of made ground and sulphate testing undertaken on 42 samples of made ground and topsoil. The data set had over ten results and as such the mean of the highest 20% of the test results has been taken as the characteristic value which is 0.0788g/l. The characteristic value of the lowest 20% of the pH of the samples is 5.5.

Laboratory pH testing was undertaken on 64 samples of natural superficial deposits and sulphate testing undertaken on 40 samples of natural superficial deposits. The data set had over ten results and as such the mean of the highest 20% of the test results has been taken as the characteristic value which is 0.10425g/l. The characteristic value of the lowest 20% of the pH of the samples is 6.53.

The site is underlain by impermeable deposits therefore the groundwater has been classified as static.

The results of laboratory pH and sulphate content indicate that ACEC Class AC-1s and sulphate class DS-1 conditions prevail in accordance with BRE Special Digest 1 "Concrete in aggressive ground" 2005. The specific concrete mixes (the Design Concrete Class) to be used on site will be determined by the site specific concrete requirements in terms of the durability and structural performance. These are assessed in terms of the Structural Performance Level (SPL) and any need for Additional Protective Measures (APM) detailed in Part D of BRE Special Digest 1 with further guidance in Pt E and F.

7.8 Highways

Based on the test results equilibrium CBR values of 6% are likely to be achieved in undisturbed natural clays soils for pavement design purposes, unless proven otherwise by in-situ testing at formation level by a specialist geotechnical engineer. Equilibrium CBR values are likely to be 2% within the made ground.

Where the CBR is found to be less than 2%, the sub-grade is unlikely to be suitable for both the trafficking of site plant and as a permanent highway foundation without improvement of the soils.

To achieve the required design CBR value, improvement works should be carried out in accordance with DMRB IAN 73/06 Rev 1 Chapter 5 and may include proof rolling, excavation and re-engineering / replacement of weaker soils, the inclusion of a geogrid or use of stabilisation techniques such as the addition of hydraulic binders (e.g. cement/lime).

Where peat is encountered beneath proposed highways it is recommended that this is removed to mitigate against settlement.

Based on the fines content of the soils, they are considered to be frost susceptible, therefore highway construction should be a minimum thickness of 450mm to mitigate against the risk.

Care should be taken to ensure the stratum at formation level is protected against inclement weather, as this is likely to lead to surface deterioration and a decrease in soils strengths.

7.9 Sustainable Drainage Systems (SUDS)

The testing undertaken to date indicates negligible infiltration rates therefore the use of traditional soakaways within the natural ground is not feasible, largely due to the presence of low permeability cohesive strata underlying the site, alongside shallow perched groundwater levels.

It is understood drainage will incorporate swales and attenuation basins at the site which should be designed by a suitably competent drainage engineer.

7.10 Earthworks

Given the variability of existing site levels and development layout requirements, earthworks will be required in order to achieve the desired development embankment level for the proposed dualling of Penwortham Way to the west.

The earthworks should be undertaken in general accordance with the Highways Agency Specification for Highway Works (HASHW), Series 600. Filled ground and embankments should be placed and compacted as appropriate according to the class of the material in accordance with Tables 6/1, 6/2 and 6/4 (HASHW).

In accordance with Series 600 of the Highways Agency Specification for Highway Works (HASHW) the materials tested in area 13 are 2A/B (Wet/Dry Cohesive).

The upper limit for moisture content for Class 2 materials to be classified as 'Dry Cohesive' (2B) is the plastic limit minus 4% (PL – 4). The moisture content and PI testing undertaken indicates that, at the time of the investigation, most materials tested would be classified as 2A (wet cohesive), however this should be determined by the earthworks contractor in the field as it will be affected by weather conditions at the time of the earthworks. In two out of ten samples analysed the liquid limit was greater than 50%, therefore in accordance with HASHW only a deadweight tamping roller, vibratory tamping roller or grid roller should be used on the class 2A materials.

The results of the compaction tests to determine the dry density/moisture content relationship indicate that the materials recovered from site were wetter than the optimum moisture content at the time of the investigation. Compaction testing carried out on samples of the natural clay soil indicate Optimum Moisture Contents (OMC) of between 10% and 18%, with corresponding Maximum Dry Density (MDD) values between 1.73 Mg/m³ and 2.00 Mg/m³.

Recorded moisture contents range from 15% to 25%, with an average of 20.3%, indicating that they are 'wet' of OMC, but may be suitable for re-use following the addition of binders to control the moisture content (i.e. stabilisation).

A detailed end-product or performance specification for the placed material should be compiled for the embankment fill for the new road. A field trial should be undertaken on the site-won materials to confirm the suitability of the proposed compaction methods and roller. The soils may be suitable for stabilisation and improvement by the inclusion of binders, if required, subject to further detailed design and testing.

The settlement of the fill material is difficult to calculate as this is dependent on several factors (such as material properties, adequacy of compaction, moisture content/groundwater) and is therefore best done by specifying an appropriate end-product specification to limit settlement, measured by plate load testing during the fill process, and by ongoing monitoring during and after completion.

One option is to complete the embankment early in the earthworks project and top up to required level if settlement occurs. Where class 2 (cohesive) materials are used in the embankment, the rate of primary settlement can be increased significantly by installing vertical drains during construction. Also, the embankment could be surcharged in combination with management of the pore water pressure in order to accelerate primary settlement and reduce secondary settlement.

In order to achieve adequate compaction across the entire width of the embankment, it is likely that the fill materials will need to be placed in layers extending a suitable distance beyond the final edge of the embankment and then be trimmed back to the appropriate line and gradient.

Suitable drainage will need to be installed to reduce pore water pressures (and increase stability/ factor of safety) and to control seepages and associated piping/erosion of the slope.

There will be additional loading placed at the top of the filled slope in the form of traffic loads from the new road. It is recommended that once the design is finalised that the stability of the designed slope is confirmed by suitable modelling including the traffic surcharge.

Where the engineered embankment is proposed to be constructed on an existing slope, further detailed modelling will be required to consider potential rotational failures of the existing slope following surcharging. The toe of embankment should be keyed into existing soils to prevent potential translational failures.

As the new road will be adopted by the Local Authority, the standards for design, construction and specification for the filled slope, embankment and the road itself are likely to be stringent and in accordance with the relevant volumes of the DMRB (Design Manual for Roads and Bridges) and HASHW (Highways Agency Specification for Highway Works). The specific requirements of the adopting authority should be established prior to further detailed modelling and design.

The topsoil may only be used as landscaping fill subject to the necessary approvals or should be disposed

If site-won materials are to be re-used on site, it is recommended this is carried out under the CL:AIRE Development Industry Code of Practice (DoWCoP CL:AIRE March 2011).

8.0 GENERIC RISK ASSESSMENT

8.1 Introduction

The samples were tested for an assessment of the chemical contamination and results were examined with reference to a selection of guidance documents as detailed in Appendix A. For reference, the Chemical Laboratory Testing Results are presented in Appendix D. In this case the LQM/CIEH S4ULs and DEFRA C4SLs for a residential end use with homegrown produce end use have been adopted as Tier 1 generic screening values.

The apparent exceedance of the relevant screening value for a residential with homegrown produce end use is taken as indicating further detailed assessment or remedial action is required.

8.2 Soils Test Results (Human Health)

Metals

Eight out of two hundred and thirty-one samples demonstrated marginally elevated levels of mercury above the LQM/CIEH S4UL for elemental mercury. The results showed an average exceedance of 1.8mg/kg above the generic assessment criteria of 1.2mg/kg for residential end-use.

Despite being marginally in exceedance of the assessment criteria, the mercury concentrations remain below the Normal Background Concentrations for mercury in English soils in an urban environment as outlined in the Defra Technical Guidance Sheet on normal levels of contaminants in English soils: Mercury (2012). Additionally, the generic assessment criteria are based on the S4ULs, which for mercury can be further subdivided into its elemental, inorganic, and methyl forms, however laboratory testing only identifies the total mercury concentration (without specifying which form).

It is considered unlikely that mercury present in the topsoil exists as elemental mercury, which is liquid at room temperature and very volatile at low temperatures, any elemental mercury is likely to have dissipated as a vapour. It is considered more likely that the elevated levels of mercury observed in the topsoil exist in the inorganic (GAC - 40mg/kg) or methyl forms (GAC - 11mg/kg), for which the S4ULs have not been exceeded.

Three samples of topsoil, six samples of made ground and one sample of natural clay tested contained the following elevated determinands.

Location	Strata	Metal	Concentration (mg/kg)	S4UL (mg/kg)
WS01 0.00-0.37	Topsoil	Lead	230	210
WS04 0.00-0.50	Topsoil	Lead	290	210
CP01 0.00-0.50	Topsoil	Lead	240	210
WS42 0.25-0.45	Clay	Hexavalent Chromium	7.8	6
TP63 0.00-0.45	Made ground	Arsenic	62	37
		Lead	420	210
WS87 0.30-1.29	Made ground	Arsenic	76	37
		Lead	350	210
TP205 0.50-1.00	Made ground	Arsenic	94	37
		Lead	830	210
TP206 0.40-0.80	Made ground	Arsenic	100	37
		Lead	410	210
		Nickel	130	130
TP207 0.40-2.60	Made ground	Arsenic	61	37
		Lead	420	210
WS143 0.00-0.30	Made ground	Lead	270	210

Asbestos

Chrysotile loose fibres were detected in a single sample out of seventy-nine screens undertaken, namely TP63 (0-0.45m) within a localised layer of made ground associated with a former garage / outbuilding on the north western part of the site. On quantification analysis the asbestos level was <0.001% mass and classified as being trace levels.

Poly Aromatic Hydrocarbons (PAHs)

BSL consider the main risk drivers for PAHs to be benzo(a)pyrene (BaP) and naphthalene. This is due to BaP being one of the most toxic of the PAHs, and naphthalene the most volatile and soluble. Category 4 Screening Levels (C4SLs) indicate B(a)P as a surrogate marker for carcinogenic PAHs, if it falls within appropriate limits, since the risk from other non-carcinogenic PAHs are considered negligible. Given the difference in chemical properties between the two, naphthalene will be treated separately using the LQM S4ULs.

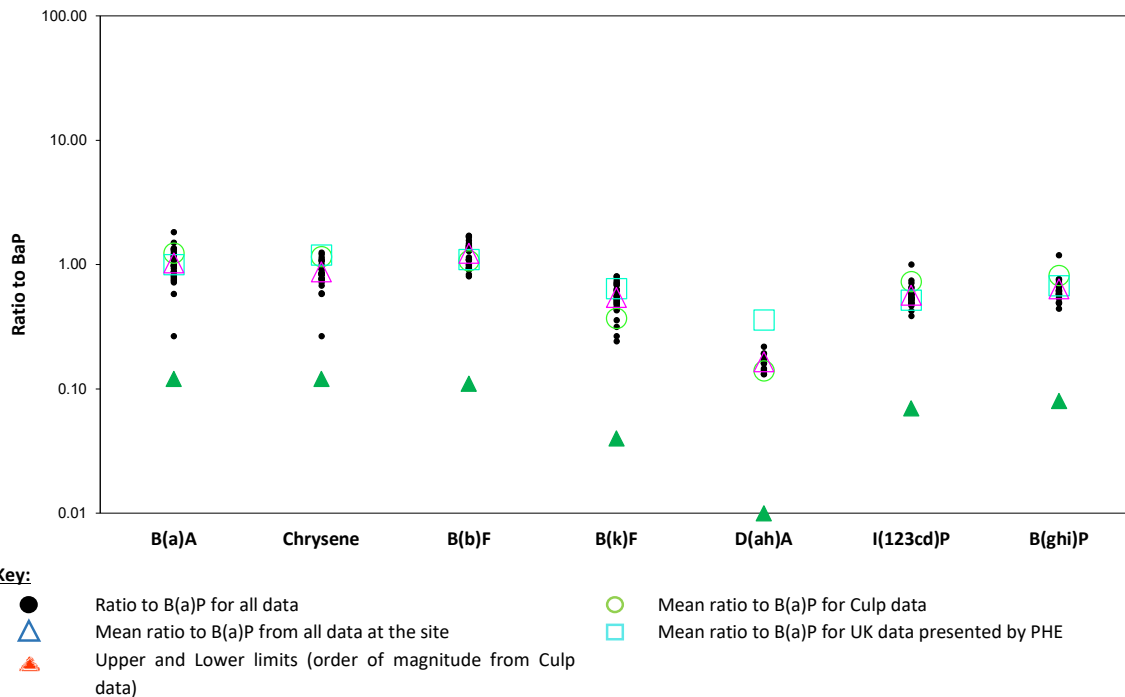
PAHs and B(a)P as a Surrogate Marker

In line with CL:AIRE and Public Health England (PHE) guidance, benzo(a)pyrene is considered to be one of the most potent PAHs, and it would be appropriate to assume the cancer risk in a mixture is proportional to the concentration of a surrogate marker PAH (benzo(a)pyrene) in the mixture. The ratio of PAHs within the mixture can be assessed to ensure that the profile is similar to that seen for the test material (coal tar mixtures) in the toxicological study by Culp et al. The International Programme on Chemical Safety (IPCS) considered that the PAH profile of the soil sample may deviate from the average profile by about an order of magnitude (up or down).

A more recent study by Bull et al (2013) which analysed PAH concentrations in soil samples from 274 sites, showed that the levels of PAH relative to BaP showed little variability and were similar to that recorded for the coal tar mix used in the Culp et al study. Given this, it was concluded that benzo(a)pyrene is a suitable surrogate marker to represent mixtures of PAH in soil.

In order to risk assess the PAH mixture in the site soil samples using human health guideline values, notably C4SLs, the PAH profile in the soil samples, the ratio of the seven genotoxic PAHs shown below, relative to BaP, should be calculated to ensure it is similar to the test material used in the Culp study (PHE 2010). To be considered sufficiently similar, the ratio relative to BaP should fit within the upper and lower limits (representing an order of magnitude above and below the mean ratio to BaP of test material used in the Culp et al study). In such cases BaP is considered an adequate surrogate marker and the Low Levels of Toxicological concern (LLTC) for BaP may be used in the risk assessment.

The graph below summarises the site data with respect to how the ratios of carcinogenic PAHs relate to BaP, within the confidence limits provided in the PHE documents.



All the data points that could be used to calculate ratios fall inside the upper or lower limits (order of magnitude above or below that of the study material). Based on this distribution of data it is considered that BaP can be used as a surrogate marker for carcinogenic PAHs and the C4SL criteria is suitable for this dataset.

Elevated PAHs were recorded in four locations to date. The location and elevated species of PAH's are shown in the table below.

Location		Species	Concentration (mg/kg)	Screening Level (mg/kg)
WS01 0.00-0.37	Topsoil	Benzo(a)pyrene	5.1	5.0
WS55 0.10-0.45	Made ground	Benzo(a)pyrene	56.0	5.0
TP205 0.50-1.00	Made ground	Benzo(a)pyrene	12.0	5.0
TP207 0.40-2.60	Made ground	Benzo(a)pyrene	8.9	5.0

* Based on Soil Organic Matter content

Total Petroleum Hydrocarbons (TPH CWG)

Elevated petroleum hydrocarbons have not been recorded in any of the samples tested.

BTEX and MTBE

Elevated BTEX compound and MTBE have not been recorded in any of the samples tested.

Polychlorinated Biphenyls (PCBs)

Elevated PCBs have not been recorded in any of the samples tested.

Pesticides and Herbicides

A pesticide screen was undertaken on sixty-two topsoil samples, of which possible pesticide markers were recorded in forty-two samples. A comprehensive pesticide and herbicide test was undertaken on nineteen samples which did not reveal any concentrations of pesticides or herbicides above detection level.

Statistical Analysis – Topsoil and Natural Strata

Statistical analysis has been undertaken in accordance with CL:AIRE ‘Guidance on Comparing Soil Contamination Data with a Critical Concentration’.

Due to the identified levels of lead, benzo(a)pyrene and hexavalent chromium within natural topsoil and clay soils in excess of residential screening criteria at the site, statistical analysis was undertaken on test results. The testing results were compared to the exploratory hole logs to establish whether the elevated results were confined to a particular stratum. Two distinct populations were identified which contained elevated determinands, the details of which are outlined in the table below.

Population Number	Description
1	Brown slightly gravelly clayey sandy topsoil with rootlets
2	Brown slightly gravelly slightly sandy CLAY

Statistical analysis was undertaken on populations 1 and 2.

The results of statistical analysis are presented in Appendix F. The table below summarises the findings of the statistical analysis and indicates whether the population as a whole presents a risk to human health:

Population Number	Contaminant	Upper Confidence Limit (mg/kg)	Critical Concentration (mg/kg)	Mitigation Required
1	Lead	159.74	210	No
	B(a)P	1.71	3.0	No
2	Cr VI	2.35	6.0	No

B(a)P = Benzo(a)pyrene

Statistics on the elevated metals show the Upper Confidence Level (95th Percentile) of 159.74mg/kg is lower than the Critical Concentration (S4UL) of 210mg/kg for lead, and the Upper Confidence Level (95th Percentile) of 2.35mg/kg is lower than the Critical Concentration (S4UL) of 6.0mg/kg for hexavalent chromium (Cr VI). The Null Hypothesis has been rejected with sufficient confidence (>95%). This implies that in respect of this lead and hexavalent chromium the soil is acceptable for use on a residential property with residential homegrown produce end use.

Benzo[a]pyrene was chosen as a marker of the Polycyclic Aromatic Hydrocarbons (PAHs) to carry out statistics, in line with above benzo(a)pyrene as a surrogate marker assessment. The Upper Confidence Limit for benzo(a)pyrene within topsoil was recorded to be 1.71mg/kg below the Critical Concentration (S4UL) of 3.0mg/kg which indicated that the topsoil is acceptable for use on a residential property with residential homegrown produce end use.

8.3 Summary of Human Health Risk Assessment (Soils)

The proposed development is of residential end use therefore residential with plant uptake screening values have been used.

Based on the above assessments, the topsoil and natural soils are suitable for the intended end use.

Through the testing and assessments undertaken, it would appear there is localised contamination within the areas of made ground (e.g. the infilled pond recorded in Area 11) noted to contain elevated concentrations of heavy metals and PAHs. In addition, chrysotile asbestos fibres have been detected in one sample to date at trace levels (TP63 in northeast, Area 5). This will require further assessment.

8.4 Controlled Waters Risk Assessment

The desk study undertaken by RoC identified a low risk with respect to controlled waters as no significant sources of contamination were anticipated. Furthermore, no evidence of significant mobile contaminants was identified during the site investigation. In addition to this, the site is not considered to pose a significant risk to controlled water for the following reasons:

- No significant contamination has been identified on site in soils based on the results obtained as a potential indicator of groundwater contamination.
- The site is underlain by low permeability clays which will inhibit lateral and vertical contaminant migration.
- The site does not lie within 500m of an SPZ.
- There are no groundwater abstractions within 250m.
- There are no potable (sensitive) water abstractions within 250m.

8.5 Permanent Ground Gas and Vapours Results

Six ground gas monitoring visits have been carried out between the dates of 1st July 2020 and 11th September 2020. Results are summarised in the table below:

	CH ₄ (%)		CO ₂ (%)		O ₂ (%)		CO (ppm)		H ₂ S (ppm)		TVOC (ppm)		Flow	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Peak	0.0	8.0	0.0	17.3	0.3	21.6	0.0	20.0	0.0	0.0	NA	NA	-17.2	117.1
Steady	0.0	2.2	0.0	16.8	2.1	21.7							-17.2	15.3

Notes: CH₄ = Methane; CO₂= Carbon dioxide; O₂= Oxygen; CO= Carbon Monoxide; H₂S= Hydrogen Sulphide; TVOC (PID)= Total Volatile Organic Compounds (as measured with Photo Ionisation Detector); ppm= Parts Per Million.

The highest methane concentrations were recorded within BH15 (8.0% v/v) on the sixth monitoring visit, whilst the majority of wells and monitoring visits did not record methane above the detection limit (i.e.<0.1% v/v).

The highest carbon dioxide concentrations were recorded in WS117 (17.3% v/v) on the first visit. The maximum steady state flow of -17.2 l/hr was recorded in BH08 on the second visit. Whilst the reading was negative, in the worst-case scenario it could turn positive. However, this is not considered to be indicative nor typical of shallow ground conditions, especially those likely to be encountered by the emplacement of shallow foundations on site. Adopted typical flows for assessment purposes are discussed further in Section 8.6 below.

The atmospheric pressure ranged between 999mb and 1022mb over the monitoring period, of which visits were conducted over a range of falling and rising pressure trends.

In many installations, groundwater was at or near surface level. Groundwater levels were recorded below the response zones as follows:

- Visit 1: 35/85 installs.
- Visit 2: 52/85 installs.
- Visit 3: 63/85 installs.
- Visit 4: 65/85 installs.
- Visit 5: 68/85 installs.
- Visit 6: 70/85 installs.

8.6 Ground Gas Risk Assessment

In order to assess the ground gas situation and the requirement for ground gas precautionary measures at the site, guidance was taken from CIRIA C665 'Assessing risks posed by hazardous ground gases to buildings' and BS8485:2015+A1:2019 'Code of Practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'.

As the proposed end-use is for low rise residential, guidance dictates that the gas monitoring results should be assessed in accordance with the Boyle and Witherington methodology.

The Boyle and Witherington methodology uses the concept of a Gas Screening Value (GSV) which is derived using the following equation: $(\text{max gas concentration} / 100) \times \text{maximum flow}$.

A maximum typical positive steady state flow of 1.6 l/hr has been used to derive the GSV for methane, and a flow of 3.1 l/hr for carbon dioxide. These are derived from the highest flow readings in the areas of the specific gas elevations and are presented below.

Gas	GSV (l/h)	Classification based on GSV	Typical Threshold Concentration Exceeded
Methane	0.1	Green	Yes
Carbon Dioxide	0.54	Green	Yes

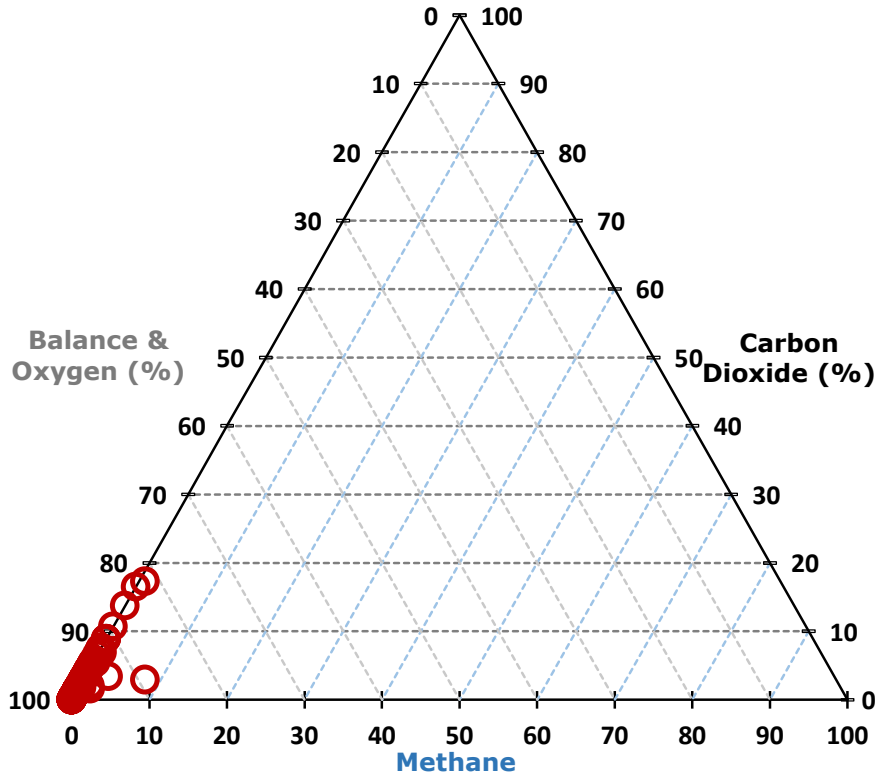
The GSV for both carbon dioxide and methane placed the site with NHBC Green classification. However, the concentrations of carbon dioxide greater than 5% v/v and methane greater than 1% v/v place the site into Amber 1 classification as outlined in CIRIA C665.

Both BS 8485 and C665 state that if the typical carbon dioxide concentrations exceed 5.0%, then consideration should be given to increasing the classification to Amber 1. Whilst carbon dioxide exceeds this level in twelve boreholes between one and three occasions, steady state concentrations were generally well below the 5.0% threshold, likely indicative of a finite/very low generation rate source.

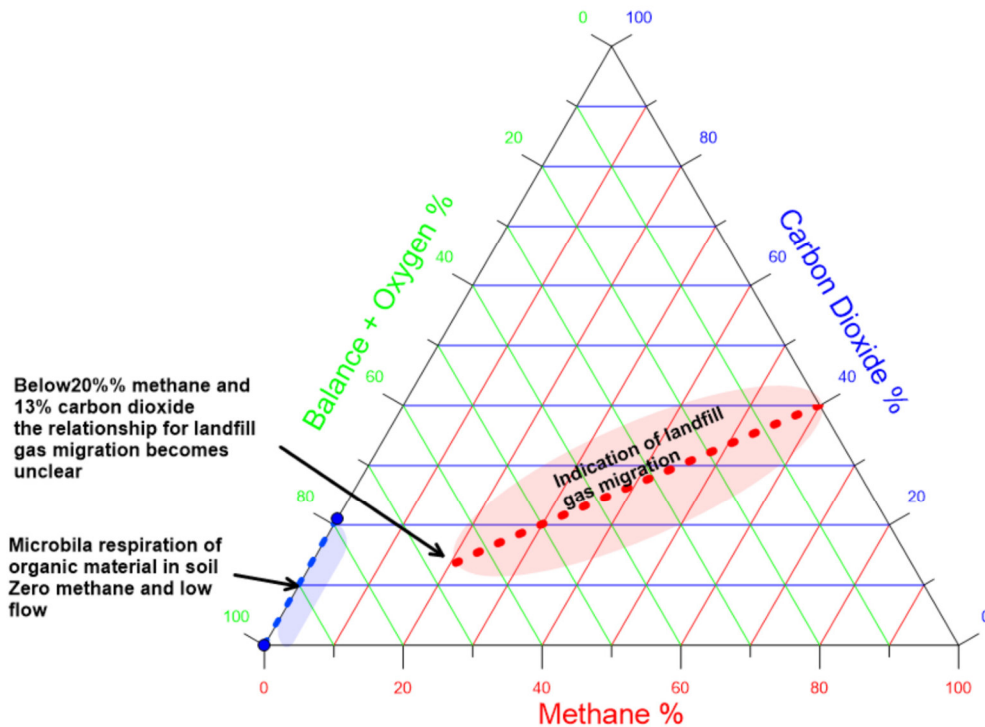
It is noted that the only viable potential source of ground gas identified at the site is peat which was encountered in isolated areas of the site. In accordance with BS 8576 (2013) peat is considered to be of very low ground gas potential due to the fact that it generally only generates ground gases when disturbed and exposed to oxygen. Given the depths/thickness' of the peat, the high groundwater table and the presence of clay deposits across the majority of the site it is considered unlikely that a reservoir of ground gas could accumulate underground and therefore gas emissions associated with these strata are limited.

Therefore, based on the above and available data, it is not considered that the site should be upgraded to Amber 1.

In order to increase confidence in this assessment in respect to the identified carbon dioxide concentrations and adopting a lines of evidence approach, reference has also been made to the recent 2018 paper by Wilson et al (Ambisence and EPG Ltd) "Using ternary plots for interpretation of ground gas monitoring results". The data has been presented on the ternary plot displayed below, which aims to determine the likely source of the ground gas. The 85 monitoring wells contains a mixture of strata to best represent the site as a whole, ranging from clay, clay with sand lenses, sand and peat.



The dataset falls within the zone attributed to microbial respiration of organic material in soils, and the hypothesis is supported by the low gas flow rates and very low methane concentrations which characterise the gas monitoring data as shown below (extract from Wilson et al 2018), with two exceptions.



Guidance states that where results plot in the zone typical for microbial respiration there is no need to increase the characteristic situation as the rates of gas generation via microbial respiration are typically very low and subsequently high flow rates would not be expected from this source.

The gas concentrations above the typical threshold levels detected in WS87 are considered to be attributed to the infilled pond identified in this location. Therefore, these particular exceedances are not considered a risk, as long as the current proposal to excavate the made ground associated with the pond is undertaken.

According to the current master plan, only public open spaces with an attenuation pond (no developments) are currently proposed in the south-west area of the site in the vicinity of the methane exceedances detected in BH15 and WS117. No source for the methane has been identified with the exception of the nearby peat, likely migrating through the sand lenses identified in these two boreholes. The only potential pathways for the methane from the peat source would be a sand stratum identified in WS117 from 0.25m to 1.30m bgl, and sand lenses in the clay of BH15 from 2.10m to 3.30m bgl.

Given the shallow depth of the peat (0.52m to 0.75m bgl) in relation to the shallow sand band of WS117 and deeper sand lenses of BH15, the methane concentration should be higher in WS117 than BH15. However, this is not the case and the concentrations do not correlate, therefore the nearby peat cannot be identified with confidence as the source of the methane in the south-west of the site.

Furthermore, the peat may possibly not be the source of the methane because the above rationale assumes the granular material is continuous from the source to the monitoring well, however, this is unlikely to be the case, rather, the granular material will exist in localised pockets. This is backed up by other boreholes and trial pits in the vicinity containing no granular material, nor elevated levels of methane. Additionally, the high groundwater table will decrease pore spaces and therefore decrease the propensity for gas storage, as will the predominance of clays within the subsurface geology containing minimal space for ground gas storage.

Moreover, as previously stated, peat is a very low generation potential source and generally will generally only produce ground gases when disturbed or introduced to oxygen. Even if peat was to be disturbed (e.g. during foundation excavations), any gas generation is likely to be short lived and the presence of a high-water table would serve to limit this generation.

If any changes to the development master plan occur, then requirements should be reassessed as the above is subject to the lack of building development in this south-western area of the site.

Based on the rationale described above, BSL reaffirm that upgrading to Amber 1 is not considered to be required, therefore the site is classified as NHBC Green classification with respect to carbon dioxide and methane.

Following the recommendation of an NHBC green classification above, CL:AIRE Research Bulletin RB17 also states the minimum level of ventilation required to deal with condensation is actually capable of dealing with quite onerous ground gas regimes (which data suggests the site is negligible to very low risk). In addition, the requirements of Part L of the building regulations relating to the air tightness of buildings also leads to the need for a well-sealed floor slab (NHBC Foundation, 2009). Based on this, it is considered that the structures on the development will also have an inherent level of ground gas protection, thus adding an additional layer of mitigation to the already very low assessed level of risk.

8.7 Potable Water Supply

The level of protection for the clean potable water supply pipes should be determined using the local water company risk assessment criteria in accordance with UKWIR.

8.8 Qualitative Risk Assessment

The CSM has been revised based on the findings of the site investigation and laboratory testing results and these are presented overleaf. Unless stated otherwise, in respect to off-site sources, only risks that are assessed as moderate and above within the preliminary CSM have been carried forward to this section, or where a previously unidentified potential source, pathway and / or receptor has been identified from the recent site works.

Human Health						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
On site Topsoil and natural clays Metals and PAH's	Root uptake, direct ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	Whilst concentrations of metals and PAHs have been identified within the topsoil, assessments have revealed these do not pose a risk to site end users.
On site Localised Made Ground Metals and PAH's	Root uptake, direct ingestion, direct contact, inhalation of dusts	End-users	Likely	Medium	Moderate	Localised areas of made ground were encountered across the site during the investigation, noted to contain elevated metals and PAHs. The risk is considered to be moderate and mitigation measures are required.
On site Made Ground Asbestos (highly localised – TP63)	Inhalation of dusts	End-users	Likely	Medium	Moderate	Asbestos was identified at trace levels (<0.001%) within one sample out of 79 samples screened. This is from TP63 (0-0.45m) within a layer of made ground associated with a former garage / outbuilding. Given the sensitive nature of the development the risk in the area around TP63 is considered to be moderate and mitigation will be required.
On site Made Ground Metals and organic contamination	Migration into/chemical attack of water supply pipelines	Water Pipelines / End users	Unlikely	Medium	Low	Contaminants within the soil/groundwater could potentially attack the clean potable water supply pipe, contaminants should be assessed in accordance with the relevant guidance to determine the correct pipe material and level of precautions required.
On site Topsoil Pesticides and Herbicides	Root uptake, direct ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	Although evidence of pesticide and herbicide markers were identified in topsoil across the site, notable in areas where grass is typically grown for hay / silage, no levels of pesticides or herbicides were recorded above detection limit. Given this, the risk is considered to be low.
Made Ground and Peat Ground Gas (carbon dioxide and methane)	Migration into confined spaces, inhalation and asphyxiation/explosion	End-users / property / structures	Likely	Severe	Moderate / Low	Significant depths of made ground were not encountered during the site investigation. Made ground was not noted to be significantly degradable or putrescible. No other sources were identified apart from the peat and infilled pond, the latter of which should be removed during construction. Although minor concentrations of carbon dioxide and methane were encountered over 5%/v and 1%/v respectively, a ternary plot of the ratio of ground gases shows this is likely from microbial respiration and ground gas protection measures are considered

Human Health						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
						not to be required, subject to source removal of made ground associated with the infilled pond at WS87.
Off site Dairy / Tanks / Garage / Railway Line Metals, PAH's, TPH	Ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	No visual or olfactory evidence of contamination was made for any soils in vicinity to the potential offsite sources of contamination. Chemical testing of the soils did not reveal any elevations in respect to residential screening criteria. The presence of low permeability soils underlying the site will limit any lateral migration of contamination onto the site. Given this, the risk is considered to be low.
Off site Electrical Substation PCBs	Ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	The mobility of this contaminant is low and any volumes present are likely to be small. No evidence of contamination or PCBs within soils analysed from adjacent to the electricity substation. The risk is considered to be low.

Controlled Waters						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
Made Ground PAHs, Metals	Overland flow, / migration through saturated zone	Onsite drains / Brook (Surface waters)	Unlikely	Medium	Low	The made ground identified is highly localised and not widespread across the site. No significant concentrations of contaminants have been identified within the soils as a potential indicator of groundwater contamination. In addition, the low permeability of the clays underlying the area will inhibit lateral migration. Therefore, a low risk is posed to the surface water receptors from the made ground.
	Leaching through unsaturated zone / Migration through saturated zone	Secondary Undifferentiated Aquifer (Groundwater)	Unlikely	Medium	Low	As stated above, no significant concentrations of contaminants have been identified within the soils as a potential indicator of groundwater contamination. Evidence of mobile contamination was also not identified visually or olfactory or through chemical analysis of soils across the site. Significant sources of onsite contamination were not identified during the Desk Study undertaken by RoC. The site is underlain by a thickness of low permeability clay (generally <20m thick) which will inhibit vertical migration.
	Migration through saturated zone	Secondary A Aquifer (Groundwater)	Unlikely	Medium	Low	There are no groundwater abstraction licences or Source Protection Zones near the site. The risk to both underlying aquifers is therefore considered to be low.

8.9 Outline Remedial Measures

Soils

For the vast majority of the site, no specific remedial measures are required in respect to soils contamination for human health/controlled waters risks. Where development takes place directly above natural soils only a nominal thickness of 100mm of “clean” validated topsoil will be required in accordance with minimum NHBC recommendations.

Where made ground is present, which is known to contain elevated concentrations of metals and PAHs, in addition to the asbestos identified at trace levels (<0.001%) at TP63 (0-0.45m) within a layer of made ground mitigation measures will be required.

An infilled pond was recorded in the north of the site, in vicinity to WS87, and was noted to contain elevated concentrations of heavy metals, PAHs and methane. It is therefore recommended that the made ground recorded in this area is removed, this will therefore remove the source and negate the requirement for a cover system and gas protection measures in this area of the site.

At present, if the made ground materials were to remain in situ beneath private garden areas or soft landscaping, then mitigation in the form of a cover system of “clean” subsoil and topsoil should be provided to break the pathway to site end users. This should be a minimum of 600mm thick in garden areas or 300mm in Public Open Space (POS) areas in accordance with BRE 465. This will allow plants to be grown and prevent undesirable soils being brought to the surface.

In the area of TP63, after removal of hardstanding and site clearance during the construction phase, it would be prudent to undertake some additional sampling to confirm the nature and extent of asbestos contamination. The inclusion of a geotextile marker layer at the base or a coarse granular, ‘hard dig’ layer is also recommended in this area, unless further testing supports that this could be omitted. A watching brief should also be maintained for evidence of Asbestos Containing Materials (ACMs) in this area, any ACMs observed should be handpicked and disposed of in accordance with current asbestos disposal regulations.

Alternatively, the made ground materials could be excavated and re-used beneath hardstanding areas under a declared Materials Management Plan which will remove the development constraint.

After installation of the clean cover (if installed), soil depths and the chemical suitability of placed soils should be verified by a suitably qualified independent geo-environmental engineer, such as BSL.

The level of protection for the clean potable water supply pipes should be determined using the local water company risk assessment criteria in accordance with UKWIR.

The above is subject to agreement with the Local Authority, and requirements should be confirmed at the earliest opportunity.

Ground Gas Protection Measures

Based on the ground gas monitoring results, no mitigation measures are required subject to the removal of the made ground/peat in the infilled pond at WS87.

As part of any enabling or remedial works, it is recommended that all boreholes with monitoring installations are decommissioned in line with EA guidance in order to remove preferential pathways for ground gas migration.

General

It is recommended that the approval of the Regulators (Local Authority/NHBC/Environment Agency) is obtained in regard to the above prior to any irrevocable action is taken at the site.

Once the above bodies have approved the above outline remedial proposals, a Remedial Strategy and / or a Verification Plan for Ground Gas Protection Measures will need to be produced to meet planning requirements and submitted to the regulatory authorities for approval. This will also give guidance to enable a suitably qualified contractor to carry out the works.

In addition, the writing and approval of a Materials Management Plan (MMP) or suitable exemptions/permits will be required to allow re-use of suitable material at the site.

A watching brief is recommended during groundworks for any unidentified sources of contamination. If any gross contaminated material is encountered works should cease in that area and BSL consulted.

Once remediation is complete, verification reports will need to be produced by a suitably qualified independent geo-environmental engineer, such as BSL, in order to achieve regulatory sign off.

8.10 Health and Safety Issues

During the reclamation and construction phases of the site development it will be necessary to protect the health and safety of site personnel. The risk to construction and ground workers is assessed in the table below:

Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk
Made Ground (heavy metals, PAHs)	Ingestion, direct contact, inhalation of dusts.	Construction Workers	Likely	Mild	Moderate/low
Asbestos	Ingestion, direct contact, inhalation of dusts.	Construction Workers	Low Likelihood	Medium	Moderate/low
Ground gas	Inhalation in confined spaces/trenches	Construction Workers	Low likelihood	Severe	Moderate

Trace levels of chrysotile asbestos have been identified in one sample to date and trace levels of asbestos are assumed within the made ground localised to this area of the site. The risk from asbestos should be highlighted in the method statements and site induction. If further evidence of asbestos is encountered in the soils, work should cease until asbestos control measures have been agreed and put in place. Asbestos is further discussed in Section 8.11 below.

The risk from made ground will be mitigated by standard PPE including gloves. Welfare facilities should be made available to wash before hand to mouth activities.

General guidance on these matters is given in the Health and Safety Executive (HSE) document "Protection of Workers and the General Public during the Redevelopment of Contaminated Land". In summary, the following measures are suggested to provide a minimum level of protection:

- All ground workers should be issued with the relevant protective clothing, footwear and gloves. These protective items should not be removed from the site and personnel should be instructed as to why and how they are to be used.
- Hand-washing and boot-washing facilities should be provided.
- Care should be taken to minimise the potential for off-site migration of contamination by the provision of dust suppression control and wheel cleaning equipment during the construction works.
- Good practices relating to personal hygiene should be adopted on the site.
- The contractor shall satisfy the Health and Safety Executive with regard to any other matters concerning the health, safety and welfare of persons on the site.

8.11 Asbestos

The investigation of asbestos issues within structures was beyond the scope of this report. However, guidance from UK Government indicates that asbestos should be assumed to be present in buildings unless proven otherwise.

Any asbestos within structures will require removal prior to re-development. This will need to be done by a suitably qualified experienced and licensed contractor, who ensures that adequate PPE is provided to operatives, and that all the relevant legislation is adhered to.

Asbestos fibres have been identified in one sample at the site with quantification analysis identifying this to be trace amounts. At these concentrations the liberation of fibres is considered to be unlikely and no specific precautionary measures with regards to asbestos are likely to be required at the site. The level of precautions required are at the discretion of the principal contractor on site, however good site practices including minimising the generation of dusts should be adhered to and sufficient to mitigate against the risk from asbestos. In addition, site personnel should have the risk communicated at the induction stage. It is recommended that the asbestos in construction materials assessment tool is used at the site to inform asbestos licensing and control measures.

Excavations in soils containing asbestos should comply with the CL:AIRE publication 'Interpretation for Managing and working with Asbestos in Soil and Construction and Demolition Materials' (CARSOIL) and CAR 2012. All such works will need to be agreed with the regulatory bodies (HSE and/or LA).

Additional guidance is provided within the BSL methodology Guidance Note in Appendix A.

9.0 WASTE SOIL CLASSIFICATION & ASSESSMENT

9.1 Summary

BSL have undertaken an assessment of potential excavation waste to arise from the site during redevelopment to:

- Classify the excavation waste to arise as either hazardous or non-hazardous.
- Identify the most sustainable options for the wastes to arise in accordance with the waste hierarchy.
- Provide a written description of the waste required as part of the Duty of Care.
- Provide details of “hazardous properties” to complete hazardous waste consignment note (where applicable).
- Be able to provide a basic classification report to landfill operator (where waste is destined for landfill disposal).

9.2 Options Appraisal

Any material excavated on site may be classified as waste and it is a statutory responsibility of the holder of a material to form their own view on whether or not it constitutes waste. This includes determining when waste that has been treated in some way can cease to be classed as waste for a particular purpose.

Following the classification of excavation wastes, the options available for the waste can be considered in the context of the waste hierarchy. The most sustainable and economic method of dealing with waste soil is usually the retention and re-use on site. If soils are required to be removed from site, then there are three main options for the disposal of soils:

1. Re-use on another site (subject to suitability of the soils and complying with relevant waste legislation).
2. Disposal to a permitted waste recycling facility.
3. Disposal to a landfill site.

9.3 Re-use of Soils

By definition in law, any material excavated from the ground becomes waste at the moment of excavation. If that soil (now a “waste”) is then placed on another part of the development site (or used on another development site) without an appropriate materials management plan, permit or exemption being in place, by law this material is defined as “illegally deposited waste”.

Landfill tax rules were updated on 1 April 2018 and as a result of the change, HM Revenue & Customs (HMRC) can now recover landfill tax on illegally deposited waste on construction sites. This could lead to excessive costs without the correct documentation in place. In addition, a person who makes, knowingly causes or knowingly facilitates a disposal to be made at an unauthorised site, is now also liable to pay Landfill Tax.

In order to comply with UK legislation and avoid excessive costs, if the re-use of soils is proposed on site, this should be done in accordance with the CL:AIRE “Development Industry Code of Practice for the Definition of Waste” (CL:AIRE DoWCoP) also known as a Materials Management Plan (MMP). Regardless of implementing the DoWCoP or not, all sites should have some form of materials tracking in place in compliance with current legislation. Any re-use scheme should also be designed to minimise disposal costs. Further guidance is provided in the BSL Methodology and Guidance in Appendix A.

To implement the DoWCoP, there is a requirement to notify the Environment Agency and Local Authority of the intention to use the code of practice in principal, after which there is a 21-day notice period for their response.

In order to re-use soils under the DoWCoP, there are four key criteria that need to be met:

-
- The aims and objectives of the project meet the requirements of the Waste Framework Directive.
 - The soils can be demonstrated to be suitable for use (backed up by chemical/geotechnical testing and assessment).
 - There is certainty of use (i.e. materials tacking which should be in place as part of good site practice in any case).
 - Quantity (the quantity of materials used should be known).
-

Information on existing site levels, proposed levels, volumes generated (e.g. foundation / drainage excavation arisings) would need to be known in order to complete the MMP.

If the DoWCoP is the chosen route, it is an absolute that the CoP should be in place and declared by a Qualified Persons (QP) before works commence, otherwise excavated soils could constitute an illegal deposit of waste and enforcement action could be taken by the EA and HMRC.

In regard to “clean” naturally occurring soils only that are to be re-used on their site of origin, these are covered by a Waste Framework Directive (WFD) exclusion. So long as the project can prove the four criteria (listed above) then permits or the DoWCoP are not required. However, many projects still use the DoWCoP to ensure compliance.

Re-use of soils containing asbestos should comply with the CL:AIRE publication ‘Interpretation for Managing and working with Asbestos in Soil and Construction and Demolition Materials’ (CAR-SOIL™) and CAR 2012.

In terms of the re-use of brick/concrete crush materials, the DoWCoP does cover aggregates, but only on the site of origin and the EA WRAP aggregate Quality Protocol might best apply to ensure quality standards.

9.4 Waste Assessment Procedure

As described in the ‘Waste Duty of Care Code of Practice (2016)’ any substance or object that the holder discards, intends to discard or is required to discard is a waste. It is the responsibility of the waste producer to classify this waste. The classification process is described in the ‘Guidance on the classification and assessment of waste’ WM3 and aims to determine whether the waste is Hazardous or Non-Hazardous to human health and the environment.

Hazardous wastes are signified by entries where the code is followed by an asterisk, where some wastes are deemed hazardous without further assessment, which are termed “Absolute Entries” e.g. most waste oils. Alternatively, waste entries are termed “Mirror” entries that require further assessment of hazardous properties, in order to determine whether they are hazardous waste or not (e.g. soil and stones). The EWC codes relevant to excavation wastes are:

-
- 17 05 03* - soil and stones containing dangerous substances; or
 - 17 05 04 – soil and stones other than those mentioned in 17 05 03.
-

Wastes need to be classified based on their total concentrations and classified as either hazardous or non-hazardous waste. WAC testing is only required if the end disposal route is a landfill and WAC analysis must not be used for waste classification.

The Landfill Directive (Directive 1999/31/EC on the landfilling of waste, Decision 2003/33/EC and Landfill Regulations 2005) led to the establishment of a methodology for classifying wastes. Wastes can only be accepted at a landfill if they meet the relevant Waste Acceptance Criteria (WAC) for that type of landfill. A waste must comply with the WAC limits for the relevant landfill, otherwise the soil will need to be pre-treated. There are three different WAC criteria, these are:

- Inert waste.
- Stable Non-Reactive Hazardous Waste (SNRHW).
- Hazardous waste.

There are no standard set of WAC limits for non-hazardous landfill sites and each non-hazardous landfill will have its own set of criteria under which it is licenced to accept non-hazardous waste. These will need to be determined through the selected waste receiver prior to disposal.

A non-hazardous waste should not be compared with WAC limits for hazardous or SNRHW waste sites and the WAC test should only be used to determine if the waste is suitable for disposal at an inert waste landfill site. Likewise, wastes classified as hazardous based on their total concentrations should not be compared with WAC limits for inert waste landfill sites, as these will not be accepted.

Details of how material should be classified for waste disposal are presented in the BSL Methodology and Guidance in Appendix A and are summarised in the table below:

Classification based on Total Concentrations ¹	PRIOR TO LEAVING SITE			
	Non-Hazardous Waste		Hazardous Waste	
	IF SOILS CANNOT BE RE-USED ELSEWHERE AND MUST GO TO LANDFILL			
WAC testing	Below inert WAC limit values	Above inert WAC limit values	Below hazardous WAC limit values ⁴	> WAC limit values
Landfill requirements	INERT landfill	NON-HAZARDOUS landfill ²	HAZARDOUS landfill	PRE-TREATMENT ³

1 Total concentrations are defined as tests results on solids as opposed to leachate (i.e. a liquid).

2 Individual sites may have certain limit values pre-determined in their licence.

3 After pre-treatment the material characteristics may have changed to an extent that allow the soil to be re-classified.

4 Possibility that wastes could be classified as stable Nonreactive HAZARDOUS waste in non-hazardous Landfill (e.g. soils containing low concentrations of asbestos, gypsum or sulphate bearing soils).

Waste classified as non-hazardous can be accepted into a non-hazardous landfill without having to pass any numerical WAC.

Soils above hazardous WAC limit values require pre-treatment prior to disposal. The effective pre-treatment, typically involving separation, sorting and screening, can offer cost savings through reducing the hazardous nature and volumes of soil. Costs for disposal of non-hazardous/hazardous soils are significant compared to the disposal of inert material.

Inert Waste

The possibility of automatic inert classification of the naturally occurring “clean” soils should be explored in accordance with Section 4.3 of the EA guidance document. The Council Decision includes a list of wastes in Section 2.1.1 of the document that are assumed to be inert and therefore acceptable at a landfill for inert waste without testing. This is the case if:

- They are single stream waste of a single waste type (although different waste types from the list may be accepted together if they are from a single source); and
- There is no suspicion of material or substances such as metals, asbestos, plastics, chemicals, etc to an extent which increases the risk associated with the waste sufficiently to justify contamination and they do not contain other classes of landfill.

9.5 Waste Classification and Waste Acceptance Criteria (WAC)

We have reviewed the testing results and assessed them through a waste classification database which allows users to code and classify waste as defined in the EWC (European Waste Catalogue) based on EC Regulation 1272/2008 on the Classification, Labelling and Packaging of Substances and Mixtures (CLP) and latest Environment Agency guidance (WM3 “Guidance on the classification and assessment of waste - Technical Guidance”).

Two hundred and thirty-one samples were tested to assess whether they contained any contaminants in the hazardous range when screened against assessment criteria within WM3 using the HazWasteOnline tool. Based on the waste classification database assessment, all of the made ground soils tested have been classified as **non-hazardous**. The Waste Classification Report is presented in Appendix H.

With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content.

In respect to hexavalent Chromium (e.g. WS42), concentrations are considered to be too low to be oxidising. Furthermore, following WM3 decision tree Fig C2.1 hexavalent chromium is the only potentially oxidising substance and therefore HP2 is not applicable.

As part of the investigations to date, solid and eluate WAC analysis was undertaken on five samples of made ground, the results of which are presented in the table below.

Location	Depth (m)	Strata Type	WAC Analysis	Comments
WS55	0.00-0.40	MADE GROUND: Dark brown to black slightly clayey sand and gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, mudstone and slag.	Hazardous*	Based on Loss on Ignition
SA04	0.25-0.70	MADE GROUND: Brown sandy clayey gravel with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of brick, concrete and limestone. Cobbles are angular of brick.	Stable Non-Reactive Hazardous Waste	Based on TOC
WS70	0.20-0.50	MADE GROUND: Greyish brown gravelly sand. Sand is fine to medium. Gravel is fine to medium subangular to subrounded of limestone, ceramic, coal and rare clinker.	Stable Non-Reactive Hazardous Waste	Based on TOC
WS87	0.30-1.29	MADE GROUND: Stiff to very stiff slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of brick and ceramic fragments.	Hazardous*	Based on Loss on Ignition
BH17	0.00-0.50	MADE GROUND: Grass over dark brown gravelly sand. Sand is fine to coarse of ash. Gravel is fine to coarse, angular to subrounded of glass, clinker, sandstone.	Hazardous*	Based on Loss on Ignition

*subject to pre-treatment.

The WAC analysis results are presented in Appendix D.

The WAC testing has revealed that if suitable segregation of different types of soil is put into place and the end disposal route of the made ground is landfill, then the soils will potentially be suitable for disposal at either hazardous landfill sites with pre-treatment or non-hazardous (stable non-reactive) waste landfill site without pre-treatment. However, given the scale of the site, efforts should be made to avoid sending soils off site to landfill.

The sample of made ground tested from SA04 exceeds levels for an inert landfill for Total Organic Carbon alone, however it is possible that this could be accepted as inert, subject to confirmation from the receiving facility.

Further testing of the soils (WAC testing) may be required in order to satisfactorily categorise the soil for its suitability for disposal to landfill.

Waste Containing Asbestos

Should soils contain asbestos, the concentration and type of asbestos identified, in addition to the chemical composition (i.e. hazardous or non-hazardous detailed above), will determine which waste code is applicable to the soils and which landfill will accept it.

Waste	Conc. by Weight (%)	EWC 2002 Catalogue Entry Code	Waste Disposal Route
Non-hazardous containing asbestos fibres	<0.001 - <0.1%	17 05 04 (soil and stones other than those mentioned in 17 05 03*)	Non-hazardous landfill subject to achieving Waste Acceptance Criteria (WAC) for a stable non-reactive hazardous landfill site. The non-hazardous landfill must be authorised to receive low level asbestos.
Hazardous containing asbestos fibres	<0.001 - <0.1%	17 05 03* (soil and stones containing dangerous substances)	Hazardous landfill subject to achieving Waste Acceptance Criteria (WAC) for a hazardous landfill site.
Non-hazardous soils containing asbestos fibres	>0.1%	17 05 03* (soil and stones containing dangerous substances)	Hazardous landfill authorised to receive asbestos, or in a stable non-reactive hazardous waste cell at a non-hazardous landfill authorised to receive asbestos.
Hazardous soils containing asbestos fibres	>0.1%	17 05 03* (soil and stones containing dangerous substances)	Hazardous landfill subject to achieving Waste Acceptance Criteria (WAC) for a hazardous landfill site. The hazardous landfill must be authorised to receive asbestos.
Non-hazardous soils containing ACM	>0.1%	17 06 05* (construction material containing asbestos) 17 05 04 (soil and stones other than those mentioned in 17 05 03*)	ACMs disposed of at a hazardous landfill authorised to receive asbestos, or in a stable non-reactive hazardous waste cell at a non-hazardous landfill authorised to receive asbestos. Soils should be disposed of at a non-hazardous landfill subject to achieving Waste Acceptance Criteria (WAC) for a stable non-reactive hazardous landfill site.
Hazardous soils containing ACM	>0.1%	17 05 03* (soil and stones containing dangerous substances)	Hazardous landfill subject to achieving Waste Acceptance Criteria (WAC) for a hazardous landfill site. The hazardous landfill must be authorised to receive asbestos.

Asbestos was identified in one sample (TP63), associated with the location of a former garage / outbuilding in the north west part of the site. The concentration of fibres in the sample tested was recorded to be trace (<0.001%) and therefore the soils will potentially be accepted as stable non-reactive hazardous waste at a non-hazardous landfill (subject to WAC testing), if they were to be removed from site.

Location	Depth (m)	ACM	Conc. by Weight (%)	Waste Disposal Route
TP63 (0-0.45m)	0-0.45m	Free Fibres	<0.001	SNR Hazardous

A watching brief should be maintained for evidence of Asbestos Containing Materials (ACMs), any ACMs observed should be handpicked and disposed of in accordance with current asbestos disposal regulations.

9.6 Site Waste Generation

The proposed development will include for the generation of waste through the following:

Waste Generation Source	Comments
Crush	The crushed concrete is site derived from structures which had not been used for potentially contaminative activities that were subject to asbestos survey and removal as required, prior to demolition and crushing of structures. Therefore, the crushed concrete is considered to be inert without testing. Where samples of crushed concrete have been subject to totals testing this is likely to be hazardous due to pH, and where subject to WAC testing, the sulphate and TDS limits are breached, this is to be expected due to the presence of concrete.
Site levelling	Samples of made ground from across the site have been classified as non-hazardous and hazardous for off site disposal purposes, although should be suitable for re-use on site under a declared MMP.
Foundations – Made ground	Samples of made ground from across the site have been classified as non-hazardous and are therefore considered to be suitable for re-use at the site under a suitable MMP.
Foundations – Natural ground	The Devensian Till may be considered suitable for re-use onsite, subject to a suitable MMP for raising levels or as fill at sites exempt from the requirement hold an environmental permit, or as restoration or cover material at a landfill site. Materials could also be exported to another site under the direct transfer scenario of the DoWCoP.
Peat Deposits	Either removed off site to a soils recycling facility or, dependant on testing and agreement with the Local Authority/EA Waste Team, it may be feasible to blend the peat with topsoil/subsoil under a suitable permit/exemption, with re-use on site under a declared MMP.

General

If any gross hydrocarbon contaminated material is encountered during the construction phase, it is possible that this may be classified as hazardous and testing should be undertaken at that time.

Where it is necessary to dispose material off site it is recommended that materials are segregated and sufficient time is allowed to further classify the actual soil arisings that constitute the waste, including discussion with landfill sites and waste transfer stations to find the best disposal route. It is illegal to dilute and mix soils without a suitable permit.

10.0 CONCLUSIONS

10.1 Environmental Summary

Soils Contamination

The site mainly comprises open fields utilised for raising cattle, growing grass for hay/silage and paddocks for horses.

Several exceedances of metals and PAHs were encountered within topsoil in the south-east of the site, however statistical analysis has confirmed that the true mean is below the critical concentration and these soils are therefore considered to be suitable for the intended residential end use.

Pesticide screens were undertaken on sixty-two topsoil samples, of which possible pesticide markers were recorded in forty-two samples. Comprehensive pesticide and herbicide tests were then undertaken on nineteen samples which did not reveal any concentrations of pesticides or herbicides above detection level. In addition, no petroleum hydrocarbon or PCB contamination has been identified.

Elevated concentrations of metals and PAHs appear to be associated with the localised made ground. In addition, chrysotile loose fibres were detected in TP63 (0-0.45m) within a layer of made ground associated with a former garage / outbuilding. On quantification analysis the asbestos level was <0.001% mass and classified as being trace levels.

The above pose a risk to end users and require mitigation either in the form of a clean cover system or by excavation and placement beneath hardstanding under a declared MMP.

Groundwater Contamination

Based on the assessments to date, the overall risks to controlled waters is considered to be low.

Ground Gas

Based on the assessments to date, the site falls into NHBC Green classification and no ground gas protection measures are required, subject to the removal of peat / made ground associated with WS87 attributed to a former infilled pond in the north-west of the site.

Waste

Should made ground be removed from the site this will be classified as non-hazardous waste.

10.2 Geotechnical Summary

Foundations

The most suitable foundations for the proposed residential homes are considered to be strip/trench fill foundations at a minimum depth of 0.90m bgl based on the medium volume change potential clays and deeper near trees and hedges in accordance with NHBC Chapter 4.2. An allowable bearing capacity of 200kN/m² should be available bearing on cohesive soils at 0.90m bgl based on the derived geotechnical parameters (assumed soil shear strengths of 90kPa).

There are localised lower strength materials at shallow depth which will need to be considered as part of detailed foundation design and scheduling. Where medium strength soils are encountered at 0.90m bgl, an allowable bearing capacity of 130kN/m² should be assumed (based on a conservative lower estimate of 60kPa soil strength).

Peat deposits have been identified sporadically across the site, typically ranging in thickness, where present, from 0.03m to 1.43m, and typically encountered within the top metre of ground. Given the compressible nature of peat over time and seasonally, foundations will have to be deepened locally to found on suitable clay of minimum medium strength beneath.

Dependant on requirements, it may be feasible to over excavate into the underlying superficial deposits to remove the peat deposits entirely. It is recommended this material should be replaced with an engineered fill placed to a designed specification, this should include validation testing to confirm end performance, thus removing the development constraint. Following this, raft or semi raft foundations could be constructed within the engineered fill, or piled/vibro improvement options could be considered.

Floor Slabs

Suspended floor slabs are recommended, where the required void size for beneath floor slabs on this site is 250mm. Alternatively, ground bearing slabs may be adopted providing the criteria in Section 7.5 are adhered to.

Concrete Classification

The results of laboratory pH and sulphate content indicate that ACEC Class AC-1s and sulphate class DS-1 conditions prevail in accordance with BRE Special Digest 1 "Concrete in aggressive ground" 2005.

Highways

Based on the test results equilibrium CBR values of 6% are likely to be achieved in undisturbed natural clays soils for pavement design purposes, unless proven otherwise by in-situ testing at formation level by a specialist geotechnical engineer. Equilibrium CBR values are likely to be 2% within the made ground.

Drainage

The use of traditional soakaways within the natural ground is not feasible at the site due to the presence of low permeability strata and negligible infiltration rates obtaining during testing.

Earthworks

Given the variability of existing site levels and development layout requirements, earthworks will be required in order to achieve the desired development embankment level for the proposed dualling of Penwortham Way to the west and for the formation of attenuation basins. The earthworks will need to be designed and undertaken in general accordance with the Highways Agency Specification for Highway Works (HASHW), Series 600. Filled ground and embankments should be placed and compacted as appropriate according to the class of the material in accordance with Tables 6/1, 6/2 and 6/4 (HASHW).

10.3 Further Work

The following further work is considered necessary to progress the site to construction phase:

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- Supplementary investigation for testing of asbestos in soils in the vicinity of TP63.
 - Design of Remedial Strategy and confirmation with the Local Authority/NHBC.
 - Production of Materials Management Plan (MMP) under the CL:AIRE DoWCoP, if required.
 - Tree survey by qualified arboriculturist.
 - Detailed foundation design, including foundation zonation plan and depth schedule.
 - Production of Earthworks Specification.
 - Implementation of the Remedial Strategy and verification of the remedial works.
-

11.0 ABBREVIATIONS AND DEFINITIONS

GLOSSARY	
Term / Acronym	Definition
AST	Above Ground Storage Tank.
BaP	Benzo (a) Pyrene.
BGS	British Geological Survey.
BRE	Building Research Establishment.
BS	British Standard.
BSL	Brownfield Solutions Ltd.
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes.
CAR 2012	Control of Asbestos Regulations (2012).
CBCB	Cheshire Brine Compensation Board.
CBCD	Cheshire Brine Compensation District.
CBR	California Bearing Ratio.
CIEH	Chartered Institute of Environmental Health.
CIRIA	Construction Industry Research Association.
CL:AIRE	Contaminated Land: Applications in Real Environments.
CLEA	Contaminated Land Exposure Assessment.
CLO	Contaminated Land Officer.
COMAH	Control of Major Accident Hazards.
Contamination	<p>Presence of a substance which is in, on or under land, and which has the potential to cause significant harm or to cause significant pollution of controlled water. There is no assumption in this definition that harm results from the presence of the contamination.</p> <p>Naturally enhanced concentrations of harmful substances can fall within this definition of contamination.</p> <p>Contamination may relate to soils, surface water, groundwater or ground gas.</p>
Controlled Waters	Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three-mile limit of territorial waters.
CPT	Cone Penetration Test.
CSM	<p>Conceptual Site Model. A schematic hypothesis of the nature and sources of contamination, potential migration pathways (including description of the ground and groundwater) and potential receptors, developed on the basis of the information from the preliminary investigation and refined during subsequent phases of investigation and which is an essential part of the risk assessment process. The conceptual site model is initially derived from the information obtained by the preliminary investigation (i.e. the Phase I Desk Study). This conceptual model is used to focus subsequent investigations, where these are considered to be necessary, in order to meet the objectives of the investigations and the risk assessment. The results of intrusive investigations can provide additional data that can be used to further refine the conceptual site model.</p>
DCP	Dynamic Cone Penetrometer.
DNAPL	Dense Non-Aqueous Phase Liquid.
DoWCoP	Definition of Waste Code of Practice.
DWS	Drinking Water Standard.
EA	Environment Agency.
EHO	Environmental health Officer.
EQS	Environmental Quality Standard.
GAC	Generic Assessment Criteria.
GDR	Geotechnical Design Report.

GLOSSARY	
Term / Acronym	Definition
GFR	Geotechnical Feedback Report.
GIR	Ground Investigation Report.
GSV	Gas Screening Value.
Harm	Adverse effect on the health of living organisms, or other interference with ecological systems of which they form part, and, in the case of human health, including property/structures and water supply pipelines.
Hazard	Inherently dangerous quality of a substance, procedure or event.
HDPE	High Density Polyethylene.
HSV	Hand Shear Vane.
K	Modulus of Subgrade Reaction.
LCRM	Land Contamination: Risk Management (EA guidance).
LNAPL	Light Non-Aqueous Phase Liquid (petrol, diesel, kerosene).
LOD	Limit of Detection (for particular method adopted).
MMP	Materials Management Plan.
Mv	Modulus of Volume of Compressibility.
ND	Not Detected.
NHBC	National House Building Council.
NR	Not Recorded.
OS	Ordnance Survey.
PAH	Polycyclic Aromatic Hydrocarbon.
Pathway	Mechanism or route by which a contaminant comes into contact with, or otherwise affects, a receptor.
PCB	Poly-Chlorinated Biphenyl.
PCSM	Preliminary Conceptual Site Model.
pH	Scale used to specify how acidic or basic a water-based solution is.
PH	Petroleum Hydrocarbons (not to be confused with pH scale).
PID	Photo Ionisation Detector.
PNEC	Predicted No-Effect Concentration.
Precision	Level of agreement within a series of measurements of a parameter.
PSD	Particle Size Distribution.
PVC	Polyvinyl Chloride.
Receptor	Human health, living organisms, ecological systems, controlled waters (surface waters and groundwater within aquifers), atmosphere, structures and utilities that could potentially be adversely affected by contaminant(s).
Risk	Probability of the occurrence, magnitude and consequences of an unwanted adverse effect on a receptor.
Risk Assessment	Process of establishing, to the extent possible, the existence, nature and significance of risk.
Sampling	Methods and techniques used to obtain a representative sample of the material under investigation.
SOM	Soil Organic Matter.
Source	Location from which contamination is, or was, derived. This could possibly be the location of the highest soil, groundwater or gas concentration of the contaminant(s).
SPT	Standard Penetration Test.
SVOCs	Semi Volatile Organic Compounds.
TOC	Total Organic Carbon.
TPH CWG	Total Petroleum Hydrocarbon (Criteria Working Group).
TVOCs	Total volatile organic compounds.

GLOSSARY	
Term / Acronym	Definition
UCS	Unconfined Compressive Strength.
Uncertainty	Parameter, associated with the result of a measurement that characterises the dispersion of the values that could reasonably be attributed to the measurement.
UST	Underground Storage Tank.
UXO	Unexploded Ordnance.
VCCs	Vibro Concrete Columns.
VOCs	Volatile Organic Compounds.
WAC	Waste Assessment Criteria.
WFD (in waste context)	Waste Framework Directive.
WFD (in water context)	Water Framework Directive.
Units	Definition
°	Degrees
Φ	Phi angle (in degrees)
g/l	Grams per Litre
km	Kilometres
kPa	Kilo Pascal (Equivalent to kN/m ²)
KN/m ² /mm	Kilo Newton per metered squared per millimeter
kN/m ²	Kilo Newtons per metre squared
kPa	Kilo Pascal (Equivalent to kN/m ²)
l/hr	Litres per hour
MJ/kg	Mega joule per kilogram
MN	Mega Newton
M ² /MN	Mega Newton per metre squared
m	Metres
m bgl	Metres Below Ground Level
m OD	Metres Ordnance Datum (sea level)
µg/l	Micrograms per Litre (parts per billion)
µm	Micrometre
mb	Millibars (atmospheric pressure)
mg/kg	Milligrams per kilogram (parts per million)
mg/m ³	Milligram per metre cubed
mm	Millimetre
ppb	Parts Per Billion
Ppm	Parts Per Million

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DRAWINGS

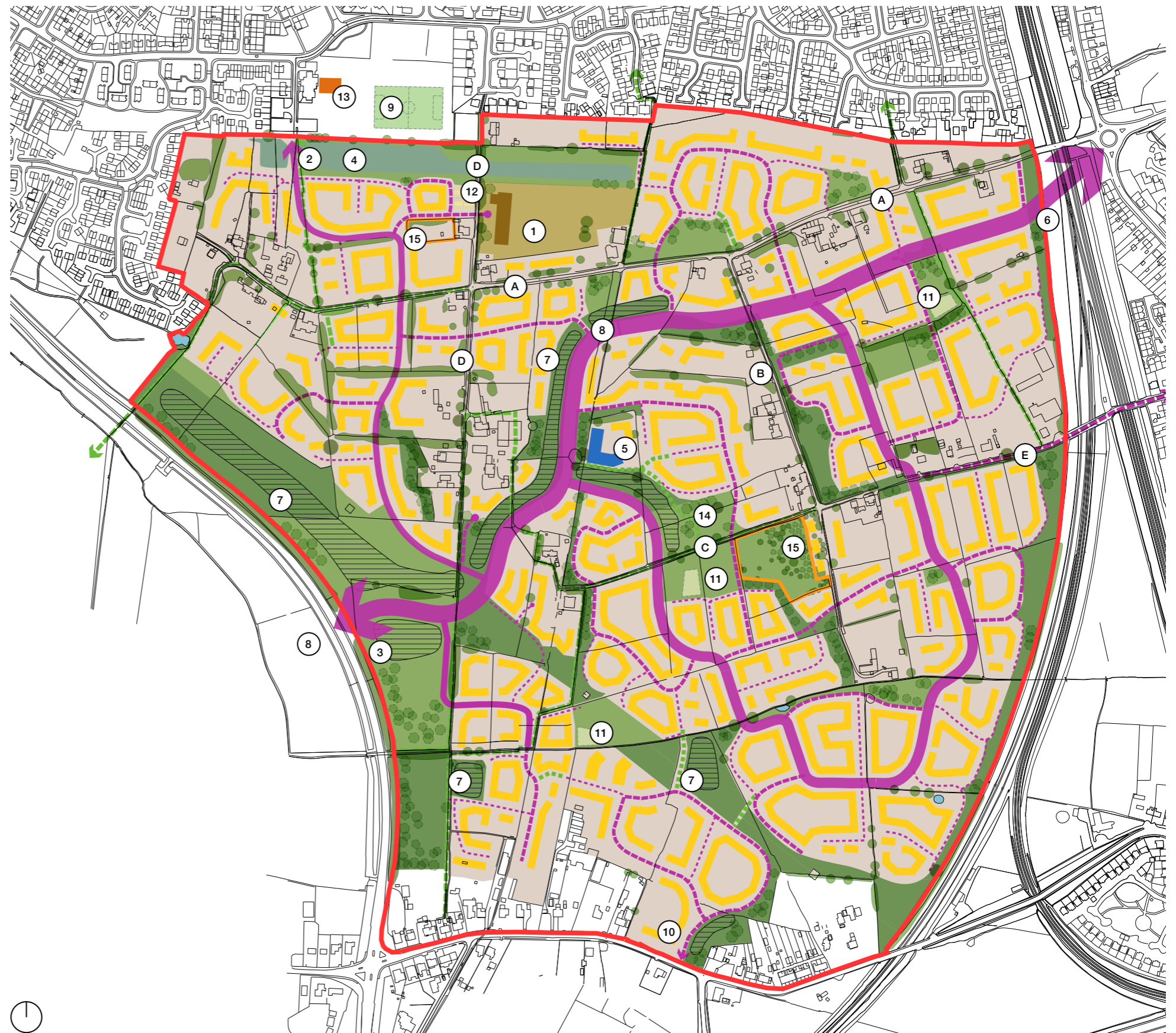
Illustrative Masterplan

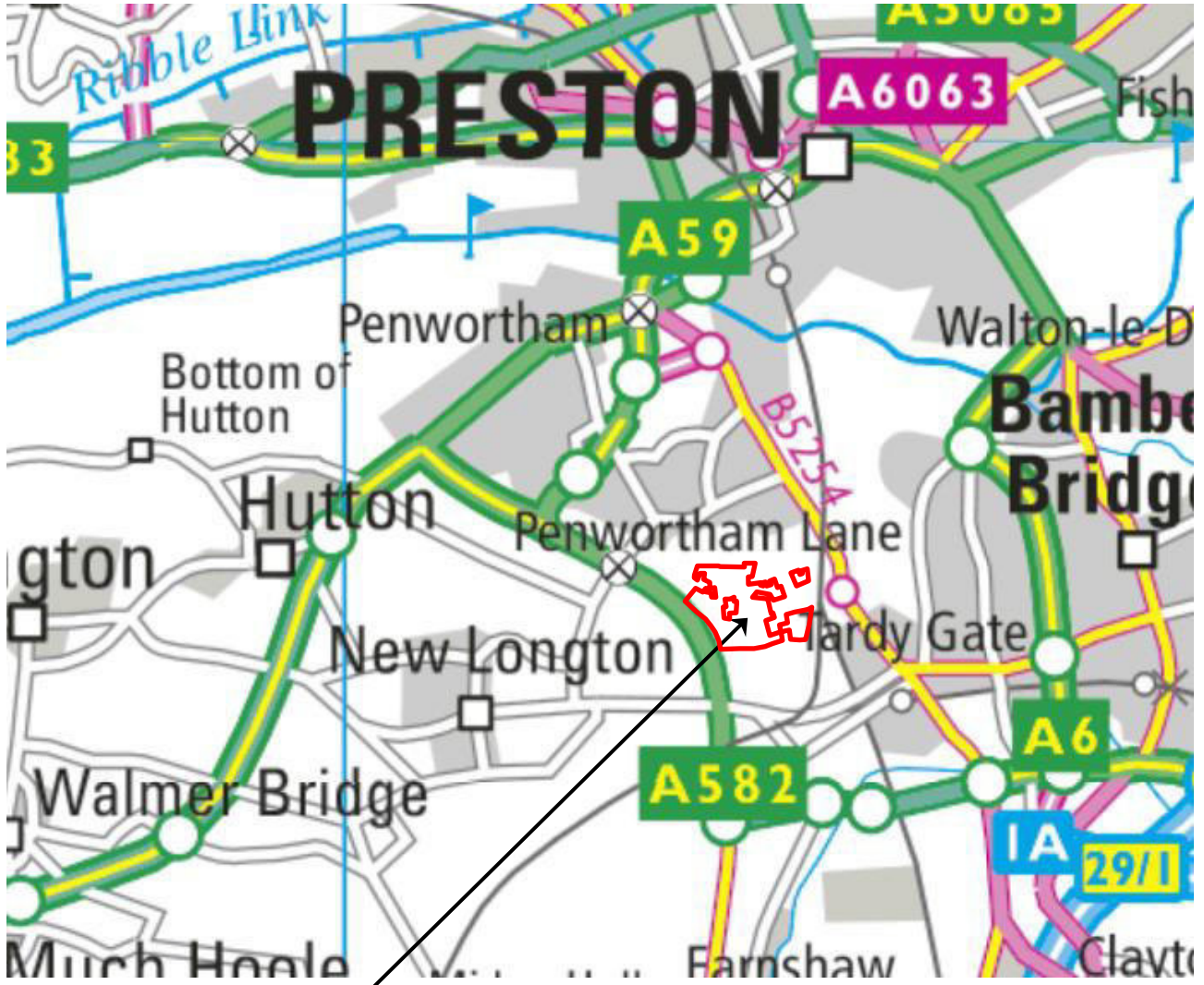
1. New Primary School
2. Public Transport, Pedestrian and Cycle Link to Kingsfold
3. Entrance Gateway – A new route from Penwortham Way direct to the heart of the new community.
4. Area to manage and contain existing surface water.
5. New local facilities including, employment and community uses
6. New Cross Borough Link Road Bridge.
7. Sustainable Urban Drainage
8. Cross Borough Link Road (CBLR)
9. 3G Pitch
10. Limited highways access onto Chainhouse Lane
11. Children's Play Areas
12. Parking and drop off for school
13. Extension to existing Community Centre
14. The Village Green
15. Retention of Orchard and / or land for future residential development if the Orchard (or part thereof) is replaced within the Masterplan

- A. Bee Lane
- B. Lord's Lane
- C. Nib Lane
- D. Moss Lane
- E. Flag Lane

Key

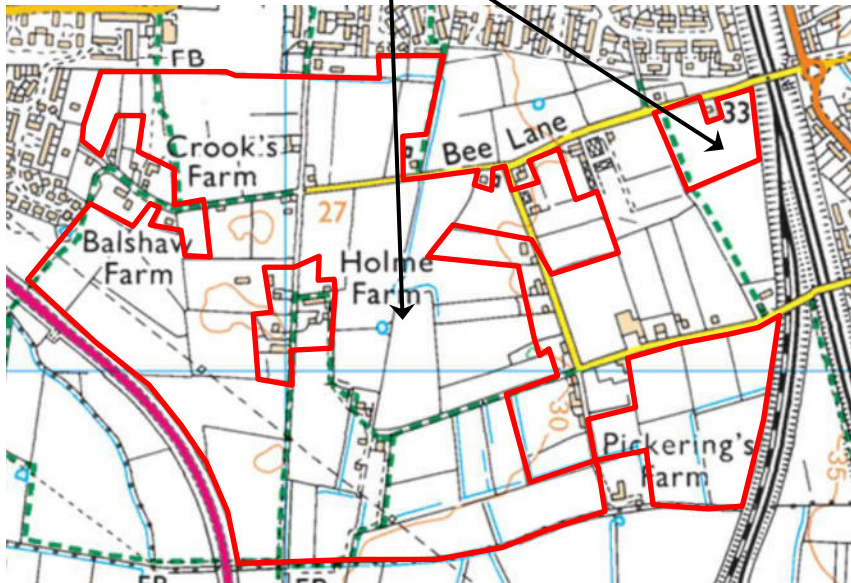
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-  Internal Greenspace
-  New Formal Amenity Space
-  Existing Lanes
-  Public Rights of Way
-  Primary Road Network
-  Secondary Road Network
-  Residential Frontages
-  Community Use
-  Education
-  Local Centre and Employment uses
-  Orchard and / or future residential





SITE LOCATION

NEAREST POSTCODE: PR1 9TU



REV	DATE	DESCRIPTION	BY	CKD



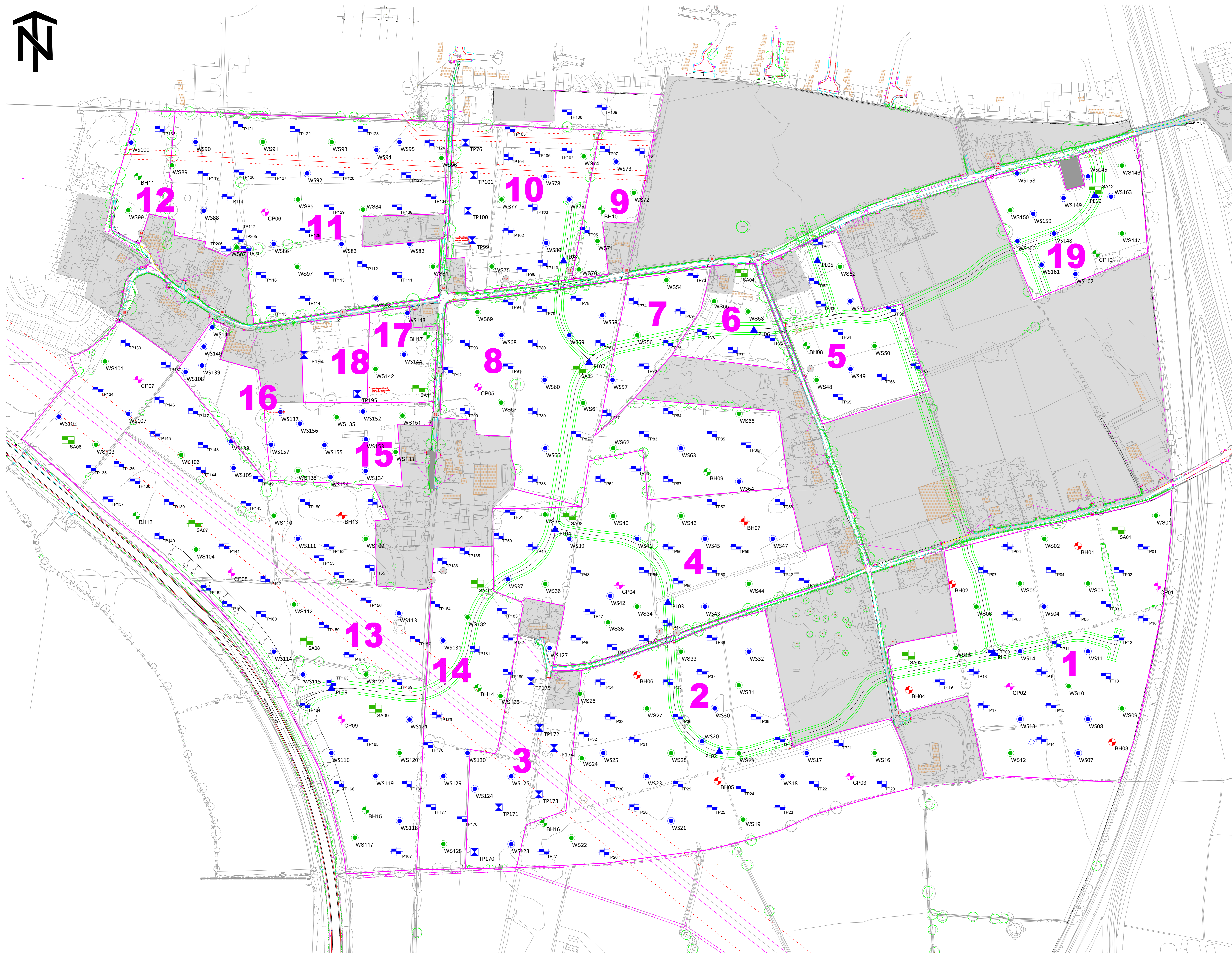
CLIENT TAYLOR WIMPEY / HOMES ENGLAND

PROJECT TITLE THE LANES, PENWORTHAM

DRAWING TITLE SITE LOCATION PLAN

DRAWING No.	REVISION	SCALE	DATE
C4259/01	-	NTS	28/07/20

DRAWN BY	CHECKED BY
GRP	NS



- KEY**
- TPXX TRIAL PIT LOCATION (184 No.)
 - SAXX INFILTRATION TEST LOCATION (12 No.)
 - PLXX PLATE LOAD TEST LOCATION (10 No.)
 - WSXX WINDOWLESS SAMPLE BOREHOLE (163 No.)
 - CPXX CABLE PERCUSSIVE BOREHOLE (10 No. 20m)
 - BHXX CABLE PERCUSSIVE BOREHOLE (17 No. 20m)
 - TPXX HAND EXCAVATED TRIAL PIT (11 No.)
 - WSXX WINDOWLESS SAMPLE BOREHOLE
 - SAXX INSTALLATION
 - BHXX CABLE PERCUSSIVE BOREHOLE
 - BHXX INSTALLATION

- NOTES**
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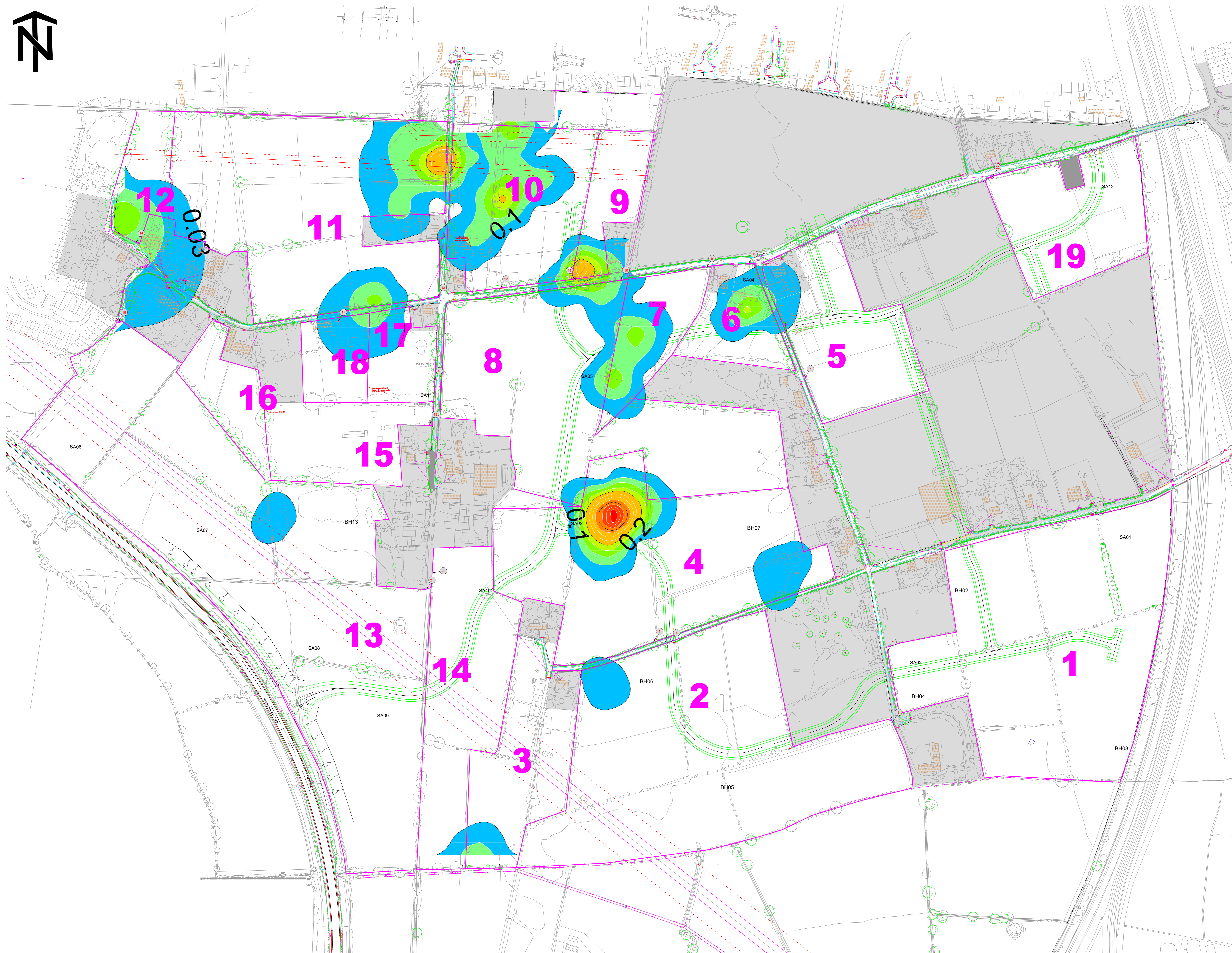
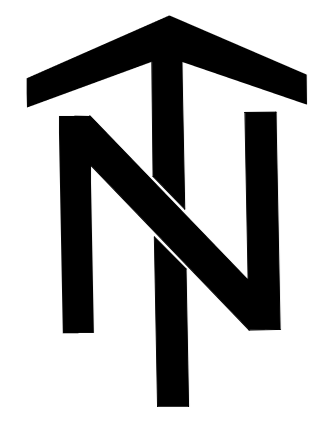
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PROJECT TITLE
THE LANES, PENWORTHAM

DRAWING TITLE
EXPLORATORY HOLE LOCATION PLAN

DRAWING NO.	REVISION	SCALE	DATE
C4259/02	E	NTS	28/07/2020

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- NOTES
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REV	DATE	DESCRIPTION	BY	CHKD



CLIENT
TAYLOR WIMPEY / HOMES ENGLAND

PROJECT TITLE
THE LANES, PENWORTHAM

DRAWING TITLE
PEAT LOCATION PLAN

DRAWING No.	REVISION	SCALE	DATE
C4259/03	-	NTS	28/07/2020

DRAWN BY: NS CHECKED BY: AJS

APPENDIX A

BSL Methodology and Guidance

BSL Methodology and Guidance – Geo-Environmental Assessment Reports

This Appendix provides information on the approaches, methods and guidance used by Brownfield Solutions Ltd in the preparation of this report.

The term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential soils and groundwater contamination). The term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements). It should be noted that this is an integrated investigation and these two main aspects are related, unless otherwise specified within the report.

Desk Studies are written in broad agreement with BS 10175:2011+A2:2017. The first stage of a two-staged investigation and assessment of a site is the Preliminary Investigation (BS 10175:2011+A2:2017), often referred to as a Phase 1 Desk Study Assessment, comprising a desk study and walk-over survey, which culminates in the Preliminary Risk Assessment. A preliminary conceptual site model (CSM) is developed. From this are identified any geotechnical and geo-environmental hazards and the qualitative degree of risk associated with them.

From the geo-environmental perspective, the hazard Identification process uses professional judgement to evaluate all the hazards in terms of possible contaminant linkages (of source-pathway-receptor). Possible contaminant linkages are potentially unacceptable risks in terms of the current contaminated land regime legal framework and require either remediation or further assessment. These are normally addressed via intrusive ground investigation and generic risk assessment.

The second stage is the Ground Investigation, Generic Risk Assessment and Geotechnical Interpretation. This represents the further assessment mentioned above. The Ground Investigation comprises field work and laboratory testing based on the findings of the Preliminary Risk Assessment, to reduce uncertainty in the geotechnical and geo-environmental hazard identification. This may include the exploratory, main and supplementary Investigations described in BS 10175:2011+A2:2017.

Legislative Background

Environmental liabilities and risks have been evaluated in terms of a source -pathway - target relationship in accordance with the approach set out in:

- The 1995 Environment Act;
- The Contaminated Land (England) Regulations 2000;
- The DETR circular 02/2000 Environmental Protection Act 1990: Part IIA Contaminated Land.

Contaminated land is defined within the legislative framework as land which is in such condition by reason of substances in, on or under the land that:

- 1) Significant harm is being caused or there is a significant possibility of such harm being caused;
- 2) Significant pollution of controlled waters is being or is likely to be caused.

The potential for harm is based on the presence of three factors:

- **Source** - substances that are potential contaminants or pollutants that may cause harm;
- **Pathway** - a potential route by which contaminants can move from the source to the receptor;
- **Receptor** - a receptor that may be harmed, for example the water environment, humans and water.

Where a source, pathway and target are all present a pollutant linkage exists and there is potential for harm to be caused. The presence of a source does not automatically imply that a contamination problem exists, since contamination must be defined in terms of pollutant linkages and unacceptable risk of harm. The nature and importance of both pathways and receptors are site specific and will vary according to the intended end use of the site, its characteristics and its surroundings.

The key principle which supports the SPR approach is 'suitable for use' criteria. This requires remedial action only where contamination is considered to pose unacceptable actual or potential risks to health or the environment and, taking into account the proposed use of the site.

Relevant Guidance Documents

This report has been prepared in accordance with the list of guidance below however the list is not exhaustive:

- DETR Circular 02/2000, Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990.
- CLR11 – Model Procedures.
- Brownfields – Managing the development of previously developed land – A client's guide, CIRIA 2002.
- DEFRA and Environment Agency publications CLR7 – 10, supported by the TOX guides and SGV guides, dated March 2002.
- Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the EPA1990, May 2002.
- Contamination and Environmental Matters - Their implications for Property Professionals (2nd Edition RICS Nov 2003).
- BS 10175:2011+A2:2017.

Relevant Legislative Documents

The following is a non-exhaustive list of legislative framework documents that has been considered in the production of this report:

- The Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (2012).
 - The Environment Protection Act (1990).
 - The Water Resources Act (1991).
 - The Environment Act (1995).
 - The Contaminated Land (England) Act (2000).
 - The Pollution Prevention and Control (England and Wales) Regulations (2000).
 - The Landfill Regulations (England and Wales) Regulations (2002).
 - The Landfill (England and Wales) (Amendment) Regulations (2004).
 - Contaminated Land (England) Regulations (2012).
 - Health and Safety at Work Act.
-

Contaminated Land Risk Assessment

Contaminated Land Risk Assessment is a technique that identifies and considers the associated risk, determines whether the risks are significant and whether action needs to be taken. The four main stages of risk assessment are:

Hazard Identification → Hazard Assessment → Risk Estimation → Risk Evaluation

CLR11 outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. The starting point of the risk assessment is to identify the context of the problem and the objectives of the process. Under CLR11, three tiers of risk assessment exist - Preliminary, Generic Quantitative and Detailed Quantitative.

Formulating and developing a conceptual model for the site is an important requirement of risk assessment, this supports the identification and assessment of pollutant linkages. Development of the conceptual model forms the main part of preliminary risk assessment, and the model is subsequently refined or revised as more information and understanding is obtained through the risk assessment process.

Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk.

The risk assessment process needs to take into account the degree of confidence required in decisions. Identification of uncertainties is an essential step in risk assessment.

The likelihood of an event is classified on a four-point system using the following terms and definitions from CIRIA C552:

- **High likelihood:** There is a pollution linkage and an event appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution;
- **Likely:** There is a pollution linkage and all the elements are present and in the right place, which means it is probable that an event will occur. Circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;
- **Low likelihood:** There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain even over a longer period such event would take place, and is less likely in the short term;
- **Unlikely:** There is a pollution linkage but circumstances are such that it is improbable the event would occur even in the long term.

The severity is also classified using a system based on CIRIA C552. The terms and definitions are:

- **Severe:** Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. A short-term risk to a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);
Examples – High concentrations of contaminant on surface of recreation area, major spillage of contaminants from site into controlled waters, explosion causing building to collapse;
 - **Medium:** Chronic damage to human health ('significant harm' as defined in DETR 2000). Pollution of sensitive water resources. A significant change in a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);
Examples - Concentrations of contaminants exceed the generic assessment criteria, leaching of contaminants from a site to a Principal or Secondary Aquifer, death of species within a designated nature reserve;
 - **Mild:** Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures, services or the environment;
Examples – Pollution of non-classified groundwater or damage to buildings rendering it unsafe to occupy.
 - **Minor:** harm, not necessarily significant harm, which may result in financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by use of personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.
-

Examples – Presence of contaminants at such concentrations PPE is required during site work, loss of plants in landscaping scheme or discolouration of concrete.

Once the likelihood and severity have been determined, a risk category can be assigned using the table below.

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very Low	Very low
	No Linkage	No risk			

Definitions of the risk categories obtained from the above table are as follows together with an assessment of the further work that might be required:

- **Very high:** There is a high probability that severe harm could arise to a designated receptor from an identified hazard or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability. Urgent investigation and remediation are likely to be required;
- **High:** Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required and remedial works may be necessary in the short term and are likely over the longer term;
- **Moderate:** It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it would be more likely to be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term;
- **Low:** It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild;
- **Very Low:** There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Some linkages may be identified which constitutes a theoretical connection between a source and a receptor, but professional judgement shows them not to be possible for some reason. These are labelled 'no linkage' in the summary table and no further action is required.

Ground Gas Guidance

Redevelopment on brownfield sites is an ever increasing occurrence, including those sites where a potential ground gas issue is present.

BS8485:2015+A1:2019 and CIRIA C665 is the current guidance which gives up-to-date advice on all aspects of ground gas. It outlines good practice in investigation, the collection of relevant data and monitoring programmes in a risk-based approach to gas contaminated land. Two semi-quantitative methods are set out for the assessment of risk:

- 1 For low rise housing with a ventilated under floor void at minimum 150 mm (Boyle and Witherington);
- 2 For all other development types (Wilson and Card).

Both methods use the concept of Gas Screening Values (GSVs) to identify levels of risk. The mitigation and management of potentially unacceptable risk is described with reference to both passive and active systems of gas. Source removal is also discussed as an option.

CIRIA C665 and the advice it contains has been prepared to be generally consistent with CLR11 *Model Procedures for the management of land contamination* (Defra and Environment Agency, 2004a). The aim of CIRIA C665 is a consistent approach to decision making, particularly relating to the scope of protective design measures on a site specific basis.

Legislative Framework

CIRIA C665 provides technical guidance however also recognises the context into which the guidance has to be employed. Government policy is based upon a “suitable for use approach”, which is relevant to both the current and proposed future use of land. When considering the current use of land, Part IIA of the Environment Protection Act 1990 provides the regulatory regime. The presence of hazardous ground gases could provide the “source” in a “pollutant linkage” which could lead the regulator to determine that considerable harm or there is a significant possibility of such harm being caused. Under such circumstances, the regulator would determine the land to be “contaminated land” under the provisions of the Act, setting out the process of remediation as described in the DETR Circular 02/2000 *Statutory guidance on contaminated land* (DETR, 2000a).

Frequency and Duration of Monitoring

The monitoring period for a specific site covers the “worst case” scenario. A “worst case” scenario will occur during falling atmospheric pressure and, in particular, weather conditions such as rainfall, frost and dry weather.

The benefits of the additional information and whether it is likely to change the scope of gas protection should be considered, as are the consequences of failing to characterise adequately pollutant linkages. Investigations concerned with soil gas are required to provide monitoring data sufficient to allow prediction of worst case conditions enabling the confident assessment of risk and subsequent design of appropriate gas protection schemes. Monitoring programmes should not be an academic exercise in data collection.

Below are matrices that will aid in determining an appropriate number of gas monitoring visits and the length of monitoring period.

Typical/idealised periods of monitoring

		Generation of Potential Source				
		Very Low	Low	Moderate	High	Very High
Sensitivity of Development	Low (Commercial)	1 month	2 months	3 months	6 months	12 months
	Moderate (Flats)	2 months	3 months	6 months	12 months	24 months
	High (Residential with Gardens)	3 months	6 months	6 months	12 months	24 months

Typical/idealised frequency of monitoring

		Generation of Potential Source				
		Very Low	Low	Moderate	High	Very High
Sensitivity of Development	Low (Commercial)	4	6	6	12	12
	Moderate (Flats)	6	6	9	12	24
	High (Residential with Gardens)	6	9	12	24	24

Note

- 1 NHBC guidance also recommends this period of monitoring (Boyle and Witherington, 2007).
- 2 There is no industry consent over "high", "medium" or "low" generation potential of source.
- 3 At least two sets of readings should be at low and falling atmospheric pressure (but not restricted to periods below <1000 mb) known as worst case conditions. Historical data can be used as part of the data set (Table 5.5b).

It is recommended that newly installed monitoring wells are left for 24 hours to allow the soil gas to reach equilibrium. It should be recognised, however, that some soil gas regimes could take considerably longer (up to seven days). Interpretation of any initial readings should take this equilibrium process into account.

Contaminated Land Screening Values

In assessing the potential for contamination Brownfield Solutions Limited (BSL) follows UK guidance and current best practice.

General

The current recommended method for assessing contamination is on the basis of:

Source-Pathway-Receptor

Where any one of these “pollution linkages” is absent there is deemed to be no risk.

Fundamentally receptors can be considered as humans and controlled waters (surface and ground waters).

The purpose of using Tier 1 screening levels is to have a simple means of assessing the potential contamination of a site and to inform decisions on whether further investigation is warranted or whether an option to undertake clean up based on the data to hand is cost effective.

Human Health

Current UK guidance is provided by DEFRA and the Environment Agency (EA). Publications forming part of the guidance include; CLEA Model, toxicological reports and soil guideline values (SGV), collectively referred to as the CLEA Guidance. The CLEA Guidance has included a number of publications which have provided initial screening values for soil contamination based on standard land uses and soil assumptions.

CLEA guidance has gone through a number of revisions, all of the original SGV's that were published have been withdrawn and publication of new SGV's commenced in 2009.

For determinands where no SGVs are available, S4UL values have been published using the CLEA 1.06 Model. These are the third set of generic assessment criteria generated by CIEH, and replace the previous two sets of GACs. The revised S4UL values are based on greater knowledge of relevant toxicology and further consideration of exposure frequencies.

No SGV or S4UL is available for lead as this is derived based on blood lead levels. C4SL values for six determinands including lead was published by DEFRA/CL:AIRE in December 2014 and they represent a low risk as opposed to minimal risk. The C4SL values are based on a sandy loam with 6% Soil Organic Matter. These screening values were published by DEFRA for Part 2A use, although with the dual purpose for use under planning. However these have not been officially accepted by Local Government for use under planning. S4ULs remain the first reference due to the broader range of end uses and soil organic content.

The preference from the EA is that site specific screening levels are used wherever possible. Due to numerous factors it is not always possible to utilise site specific values. In these instances the following data sources are used in the order of preference given below:

- CIEH S4UL values (derived by CIEH/LQM)
- DEFRA/CL:AIRE C4SL's
- CL:AIRE GAC values
- Current UK SGV's
- Guidance from other European countries
- Guidance from the outside Europe

Controlled Waters

The European Water Framework Directive (WFD) became UK law in December 2003. It was created to ensure that European countries manage their rivers, groundwater and lakes so that they stay healthy for people and for wildlife.

This is achieved by the use of chemical standards for surface waters and groundwater. These values describe concentrations of chemicals that are not expected to cause harm to environmental organisms or human health, provided they are not exceeded. The same chemical may have several standards for different environmental regimes, and for different protection objectives.

Statutory Standards are set in legislation and if exceeded, this constitutes non-compliance with statutory obligations. European Directives are implemented in England and Wales by corresponding statutory instruments (i.e. regulations). The statutory instruments can be the exact same standards as they appear in the Directive or be more stringent.

A number of non-statutory standards also exist, these are set by various organisations (including the EA) for chemicals that are considered to be of concern, but are not covered by any specific legislation.

The chemical standards used in the UK to control impact of contamination on controlled waters are Environmental Quality Standards (EQS). The EQS's cover a large number of compounds.

Where certain compounds are not covered by the EQS these are commonly compared to the UK Drinking Water Standards (DWS).

Further Assessment

When screening values are exceeded then further consideration is required. This could include the use of simple measures to break the pollution pathway and mitigate the risk, further more detailed investigation, including the deriving of site specific values to better define the risk and to design appropriate remedial measures.

Source	Contaminant	Unit SOM (%)	Proposed End Use																	
			Residential with Homegrown Produce			Residential without Homegrown Produce			Commercial			Public Open Space (POS) resi			Public Open Space (POS) park					
			1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6			
LQM S4UL	Arsenic	mg/kg	37	37	37	40	40	40	40	640	640	640	640	79	79	79	79	170	170	170
LQM S4UL	Cadmium	mg/kg	11	11	11	85	85	85	85	190	190	190	190	120	120	120	120	532	532	532
LQM S4UL	Chromium (III)	mg/kg	910	910	910	910	910	910	910	8600	8600	8600	8600	1500	1500	1500	1500	33000	33000	33000
LQM S4UL	Chromium (VI)	mg/kg	6	6	6	6	6	6	6	33	33	33	33	7.7	7.7	7.7	7.7	220	220	220
LQM S4UL	Copper	mg/kg	2400	2400	2400	7100	7100	7100	7100	68000	68000	68000	68000	12000	12000	12000	12000	44000	44000	44000
C4SL	Lead	mg/kg	200	200	200	330	330	330	330	2300	2300	2300	2300	760	760	760	760	1400	1400	1400
LQM S4UL	Mercury, Elemental	mg/kg	1.2	1.2	1.2	1.2	1.2	1.2	1.2	58	58	58	58	16	16	16	16	30	30	30
LQM S4UL	Nickel	mg/kg	180	180	180	180	180	180	180	980	980	980	980	230	230	230	230	3400	3400	3400
LQM S4UL	Selenium	mg/kg	250	250	250	430	430	430	430	12000	12000	12000	12000	1100	1100	1100	1100	1800	1800	1800
LQM S4UL	Zinc	mg/kg	3700	3700	3700	40000	40000	40000	40000	730000	730000	730000	730000	81000	81000	81000	81000	170000	170000	170000
LQM S4UL	Phenol (total)	mg/kg	280	550	1100	750	1300	2300	2300	760	1500	3200	3200	760	1500	3200	3200	760	1500	3200
LQM S4UL	Acenaphthene	mg/kg	210	510	1100	3000	4700	6000	6000	84000	97000	100000	100000	15000	15000	15000	15000	29000	30000	30000
LQM S4UL	Acenaphthylene	mg/kg	170	420	920	2900	4600	6000	6000	83000	97000	100000	100000	15000	15000	15000	15000	29000	30000	30000
LQM S4UL	Anthracene	mg/kg	2400	5400	11000	31000	35000	37000	37000	520000	540000	540000	540000	74000	74000	74000	74000	150000	150000	150000
LQM S4UL	Benz(a)anthracene	mg/kg	7.2	11	13	11	14	15	15	170	170	180	180	29	29	29	29	49	56	62
LQM S4UL	Benzo(a)pyrene	mg/kg	2.2	2.7	3.0	3.2	3.2	3.2	3.2	35	35	36	36	5.7	5.7	5.7	5.7	11	12	13
LQM S4UL	Benzo(b)fluoranthene	mg/kg	2.6	3.3	3.7	3.9	4	4	4	44	44	45	45	7.1	7.2	7.2	7.2	13	15	16
LQM S4UL	Benzo(ghi)perylene	mg/kg	320	340	350	360	360	360	360	3900	4000	4000	4000	640	640	640	640	1400	1500	1600
LQM S4UL	Benzo(k)fluoranthene	mg/kg	77	93	100	110	110	110	110	1200	1200	1200	1200	190	190	190	190	370	410	440
LQM S4UL	Chrysene	mg/kg	15	22	27	30	31	32	32	350	350	350	350	57	57	57	57	93	110	120
LQM S4UL	Dibenz(a,h)anthracene	mg/kg	0.24	0.28	0.30	0.31	0.32	0.32	0.32	3.5	3.6	3.6	3.6	0.57	0.57	0.57	0.57	1.1	1.3	1.4
LQM S4UL	Fluoranthene	mg/kg	280	560	890	1500	1600	1600	1600	23000	23000	23000	23000	3100	3100	3100	3100	6300	6300	6400
LQM S4UL	Fluorene	mg/kg	170	400	860	2800	3800	4500	4500	63000	68000	71000	71000	9900	9900	9900	9900	20000	20000	20000
LQM S4UL	Indeno(1,2,3,cd)pyrene	mg/kg	27	36	41	45	46	46	46	500	510	510	510	82	82	82	82	150	170	180
LQM S4UL	Naphthalene	mg/kg	2.3	5.6	13	2.3	5.6	13	13	190	460	1100	1100	4900	4900	4900	4900	1200	1900	3000
LQM S4UL	Phenanthrene	mg/kg	95	220	440	1300	1500	1500	1500	22000	22000	23000	23000	3100	3100	3100	3100	6200	62000	6300
LQM S4UL	Pyrene	mg/kg	620	1200	2000	3700	3800	3800	3800	54000	54000	54000	54000	7400	7400	7400	7400	15000	15000	15000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 5 - 6	mg/kg	42	78	160	42	78	160	160	3200	5900	12000	12000	570000	590000	600000	600000	95000	130000	180000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 6 - 8	mg/kg	100	230	530	100	230	530	530	7800	17000	40000	40000	600000	610000	620000	620000	150000	220000	320000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 8 - 10	mg/kg	27	65	150	27	65	150	150	2000	4800	11000	11000	13000	13000	13000	13000	14000	18000	21000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 10 - 12	mg/kg	130	330	760	130	330	770	770	9700	23000	47000	47000	13000	13000	13000	13000	21000	23000	24000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 12 - 16	mg/kg	1100	2400	4300	1100	2400	4400	4400	59000	82000	90000	90000	13000	13000	13000	13000	25000	25000	26000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 16 - 35	mg/kg	65000	92000	110000	65000	92000	110000	110000	1600000	1700000	1800000	1800000	250000	250000	250000	250000	450000	480000	490000
LQM S4UL	Petroleum Hydrocarbons Aliphatic EC 35 - 44	mg/kg	65000	92000	110000	65000	92000	110000	110000	1600000	1700000	1800000	1800000	250000	250000	250000	250000	450000	480000	490000
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 5 - 7	mg/kg	70	140	300	70	140	300	300	26000	46000	86000	86000	56000	56000	56000	56000	76000	84000	92000
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 7 - 8	mg/kg	130	290	660	130	290	660	660	3900	56000	110000	110000	180000	180000	180000	180000	250000	280000	300000
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 8 - 10	mg/kg	34	83	190	34	83	190	190	3500	8100	17000	17000	5000	5000	5000	5000	7200	8500	9300
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 10 - 12	mg/kg	74	180	380	250	590	1200	1200	16000	28000	34000	34000	5000	5000	5000	5000	9200	9700	10000
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 12 - 16	mg/kg	140	330	660	1800	2300	2500	2500	36000	37000	38000	38000	5100	5100	5100	5100	10000	10000	10000
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 16 - 21	mg/kg	260	540	930	1900	1900	1900	1900	28000	28000	28000	28000	3800	3800	3800	3800	7600	7700	7800
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 21 - 35	mg/kg	1100	1500	1700	1900	1900	1900	1900	28000	28000	28000	28000	3800	3800	3800	3800	7800	7800	7900
LQM S4UL	Petroleum Hydrocarbons Aromatic EC 35 - 44	mg/kg	1100	1500	1700	1900	1900	1900	1900	28200	28200	28200	28200	3800	3800	3800	3800	7800	7800	7900
LQM S4UL	Benzene	mg/kg	0.087	0.17	0.37	0.38	0.7	1.4	1.4	27	47	90	90	72	72	73	73	90	100	110
LQM S4UL	Toluene	mg/kg	130	290	660	880	1900	3900	3900	56000	110000	180000	180000	56000	56000	56000	56000	87000	95000	100000
LQM S4UL	Ethyl Benzene	mg/kg	47	110	260	83	190	440	440	5700	13000	27000	27000	24000	24000	25000	25000	17000	22000	27000
LQM S4UL	Xylene - o	mg/kg	60	140	330	88	210	480	480	6600	15000	33000	33000	41000	42000	43000	43000	17000	24000	33000
LQM S4UL	Xylene - m	mg/kg	59	140	320	82	190	450	450	6200	14000	31000	31000	41000	42000	43000	43000	17000	24000	32000
LQM S4UL	Xylene - p	mg/kg	56	130	310	79	180	430	430	5900	14000	30000	30000	41000	42000	43000	43000	17000	23000	31000
CL:AIRE 2010	MTBE (methyl tert-butyl ether)	mg/kg	49	84	160	49	84	160	160	7900	13000	24000	24000	49	84	160	160	49	84	160
LQM S4UL	Chloroethene (Vinyl Chloride)	mg/kg	0.00064	0.00087	0.0014	0.00077	0.001	0.0015	0.0015	0.059	0.077	0.12	0.12	3.5	3.5	3.5	3.5	4.8	5	5.4
LQM S4UL	1,2-Dichloroethane (1,2-DCA)	mg/kg	0.0071	0.011	0.019	0.0092	0.013	0.023	0.023	0.67	0.97	1.7	1.7	29	29	29	29	21	24	28
LQM S4UL	1,1,1-Trichloroethane	mg/kg	8.8	1.8	39	9	18	40	40	660	1300	3000	3000	14000	14000	14000	14000	57000	76000	100000
LQM S4UL	1,1,2,2-Tetrachloroethane	mg/kg	1.6	3.4	7.5	3.9	8	17	17	270	550	11000	11000	1400	1400	1400	1400	1800	2100	2300
LQM S4UL	1,1,1,2-Tetrachloroethane	mg/kg	1.2	2.8	6.4	1.5	3.5	8.2	8.2	0.79	1.9	4.4	4.4	1400	1400	1400	1400	1500	1800	2100
LQM S4UL	Tetrachloroethene (PCE)	mg/kg	0.18	0.39	0.9	0.18	0.4	0.92	0.92	19	42	95	95	1400	1400	1400	1400	810	1100	1500
LQM S4UL	Tetrachloromethane (carbon tetrachloride)	mg/kg	0.026	0.056	0.13	0.026	0.056	0.13	0.13	2.9	6.3	14	14	890	920	950	950	190	270	400

Source	Contaminant	Unit SOM (%)	Proposed End Use														
			Residential with Homegrown Produce			Residential without Homegrown Produce			Commercial			Public Open Space (POS) resi			Public Open Space (POS) park		
			1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6	1	2.5	6
LQM S4UL	Trichloroethene (TCE)	mg/kg	0.016	0.034	0.075	0.017	0.036	0.08	1.2	2.6	5.7	120	120	120	70	91	120
LQM S4UL	Trichloromethane (chloroform)	mg/kg	0.91	1.7	3.4	1.2	2.1	4.2	99	170	350	2500	2500	2500	2600	2800	3100
LQM S4UL	Chlorobenzene	mg/kg	0.45	1	2.4	0.46	1	2.4	56	130	290	11000	13000	14000	1300	2000	2900
LQM S4UL	1, 2 Dichlorobenzene	mg/kg	23	55	130	24	57	130	2000	4800	11000	90000	95000	98000	24000	26000	51000
LQM S4UL	1, 3 Dichlorobenzene	mg/kg	0.4	1	2.3	0.44	1.1	2.5	30	73	170	300	300	300	390	440	470
LQM S4UL	1, 4 Dichlorobenzene	mg/kg	61	150	350	61	150	340	4400	10000	25000	17000	17000	17000	26000	36000	36000
LQM S4UL	1, 2, 3 Trichlorobenzene	mg/kg	1.5	3.6	8.6	1.5	3.7	8.8	102	250	590	1800	1800	1800	770	1100	1600
LQM S4UL	1, 2, 4 Trichlorobenzene	mg/kg	2.6	6.4	15	2.6	6.4	15	220	530	1300	15000	17000	19000	1700	2600	4000
LQM S4UL	1, 2, 3, 4 Trichlorobenzene	mg/kg	0.33	0.81	1.9	0.33	0.81	1.9	23	55	130	1700	1700	1800	280	580	860
LQM S4UL	1, 2, 3, 4 Tetrachlorobenzene	mg/kg	15	36	78	24	56	120	1700	3080	4400	830	830	830	1500	1600	1600
LQM S4UL	1, 2, 3, 5 Tetrachlorobenzene	mg/kg	0.66	1.6	3.7	0.75	1.9	4.3	49	120	240	78	79	79	110	120	130
LQM S4UL	1, 2, 4, 5 Tetrachlorobenzene	mg/kg	0.33	0.77	1.6	0.73	1.7	3.5	42	72	96	13	13	13	25	26	26
LQM S4UL	Pentachlorobenzene	mg/kg	5.8	12	22	19	30	38	640	770	830	100	100	100	190	190	190
LQM S4UL	Hexachlorobenzene	mg/kg	1.8	3.3	4.9	4.1	5.7	6.7	110	120	120	16	16	16	30	30	30

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 See LQM/CIEH S4ULs for Human Health Risk Assessment document for notes regarding derivation.

Re-Use Of Waste - Guidance Note

Definition of Waste

The Environment Agency considers waste to be “...any material that is discarded, or intended to be discarded...” This includes any soil from trenches, footing, site strip etc. It is no longer required in its original location, therefore it is considered to be waste.

CL:AIRE: Code of Practice

Where materials are excavated for construction purposes, wherever possible these should be retained on site for engineering purposes if they are suitable for use. This can be implemented under the CL:AIRE “Development Industry Code of Practice for the Definition of Waste” (CL:AIRE DoWCoP), also commonly referred to as a “Materials Management Plan”.

The developer/contractor is advised to complete all works under the DoWCoP.

Potential scenarios where soils may be able to be re-used:

- Material capable of being used in another place on the same site without treatment.
- Material capable of being used in another place on the same site following ex-situ treatment on site.
- Material capable of being used in another development site without treatment (Direct Transfer).
- Material capable of being used in another development site following ex-situ treatment on another site eg Hub site.

The Code of Practice requires 4 No. Factors to be addressed:

1. Protection of human health and protection of the environment.
2. Suitability of use, without further treatment.
3. Certainty of use.
4. Quantity of material.

In order to satisfy these requirements the following are required:

- i) Consultation/approval with Local Authority & Environment Agency to confirm they have no objections to the proposed re-use of waste soils, or the risk assessments for the site.
- ii) Risk Assessments to demonstrate that the site does not present an Environmental Hazard.
- iii) Remediation Strategy for contaminated sites (or Design Statement for non-contaminated sites).
- iv) Materials Management Plan (MMP) which details material generated stockpiles and the end use.
- v) Volume calculations.
- vi) Planning permission for the development.
- vii) Contractual details to be clear, regarding who steps in is a contractor goes into administration/liquidation.

The use of the CoP is effectively industry regulated, there is a requirement to appoint an independent Qualified Person (QP) who checks all the requirements have been met and registers the documentation with the Environment Agency. This person must not have had any involvement with the preparing of the risk assessments or remedial strategy on the site.

Soils which require treatment on site (eg bioremediation, stabilisation) will require an Environmental Permit for treatment, together with justification and validation to prove, once treated, this material is suitable for use.

Site management procedures need to be in place to ensure that material is tracked through from excavation stockpiling, treatment and remediation processes. Should the process of material tracking be considered non-robust, or not adhered to, this may fail the test whether excavated materials may be considered non-waste.

Waste Classification For Soils

Introduction

Waste producers have a duty of care to classify the waste they are producing:

- before it is collected, disposed of or recovered.
- to identify the controls that apply to the movement of the waste.
- to complete waste documents and records.
- to identify suitably authorised waste management options.
- to prevent harm to people and the environment.

The most sustainable and economic method of dealing with waste soil is usually the retention and re-use on site. Where this is not possible there are three main options for the disposal of soils:

1. Disposal to a permitted waste recycling facility.
2. Re-use on another site (subject to the suitability).
3. Disposal to a landfill site.

The disposal to a permitted facility will be subject to the **specific conditions of the permits for each individual facility** and will vary dependent on location and environmental sensitivity of the receiving site. Re-use on another site will also be subject to the acceptability criteria of that site.

The guidance below relates to disposal to **landfill sites only**.

Background for Landfill Disposal

In July 2005 the United Kingdom implemented the European Directive 1999/31/EC (The Landfill Directive), this introduced the current regime for waste and waste disposal to landfill. The Landfill Directive places controls on waste disposal. These controls include requirements to follow the waste acceptance procedures and criteria that have been agreed by the Council of the European Union and are laid out in Council Decision 2003/33/EC.

Before a waste can be accepted at a landfill site, the landfill **operator** must be satisfied that the waste meets his permit conditions, the waste acceptance procedures (WAP) and waste acceptance criteria (WAC).

If disposal to landfill is the best management option for the waste soils, these procedures **must** be followed or the operator may refuse to accept the waste.

Key Points

- Not all waste can be landfilled
- Landfills are classified according to whether they can accept **hazardous, non-hazardous** or **inert** wastes.
- Wastes can only be accepted at a landfill if they meet the waste acceptance criteria (WAC) for that class of landfill.
- Most wastes must be treated before you can send them to landfill.
- There are formal processes for identifying and checking wastes that must be followed before wastes can be accepted at a landfill site.

Classification

Wastes are listed in the European Waste Catalogue (EWC 2002) and grouped according to generic industry, process or waste types. Wastes within the EWC are either hazardous or non-hazardous. Some of these wastes are hazardous without further assessment (absolute entries) or are 'mirror' entries that require further assessment of their hazardous properties in order to determine whether they are hazardous waste.

Waste soil has mirror entries on the EWC and as such the first phase of the waste classification process is that of determining if the waste is hazardous or not i.e the hazard assessment. The most common EWC waste codes related to soil are:

17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 03*	soil and stones containing dangerous substances
17 05 04	soil and stones other than those mentioned in 17 05 03

Soils may contain certain contaminants (eg asbestos, oil,) which have prescribed concentration thresholds, that if breached will render the material hazardous waste. These are based on specific "hazardous properties" which include hazards such as carcinogenicity, flammability and toxicity.

In the first instance the concentrations of plausible contaminants within the soil should be identified and wastes should be **classified based on their total concentrations**.

Waste Definitions

Inert	<ul style="list-style-type: none"> Will not undergo any significant physical, chemical or biological transformations. Will not dissolve. Will not burn. Will not physically or chemically react. Will not biodegrade. Will not adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm to human health. Has insignificant total leachability and pollutant content. Produces a leachate with an ecotoxicity that is insignificant (if it produces leachate).
Non-Hazardous	<p>Is not inert (see above)</p> <p>Is not hazardous (see below)</p>
Hazardous	Soil has hazardous properties as defined in WM3 (Guidance on the classification and assessment of waste (1st edition 2015)- Technical Guidance)
Stable Non-reactive hazardous waste#	Hazardous waste, the leaching behaviour of which will not change adversely in the long-term, under landfill design conditions or foreseeable accidents either: in the waste alone (for example, by biodegradation), under the impact of long-term ambient conditions (for example, water, air, temperature or mechanical constraints) or by the impact of other wastes (including waste products such as leachate and gas).

This option allows hazardous waste that is stable and thus has a low leaching potential to be deposited in cells with a standard of containment consistent with non-hazardous wastes.

WAC Testing

The purpose of WAC analysis is to confirm that the waste complies with the relevant WAC for the receiving landfill. If the waste has any disposal route other than a landfill site (e.g. recycling facility, incineration etc) the **WAC is not relevant**. Furthermore the WAC limits **cannot be used to make an assessment of whether a waste is hazardous**. WAC testing does however define if a non-hazardous waste is suitable for an inert landfill.

Classification based on Total Concentrations ¹	Non-Hazardous Waste		Hazardous Waste	
	WAC testing	Below inert WAC limit values:	Above inert WAC limit values:	Below hazardous WAC limit values
Landfill requirements	INERT landfill	NON-HAZARDOUS landfill ²	HAZARDOUS landfill	PRE-TREATMENT ³

1 Total concentrations are defined as tests results on solids as opposed to leachate (i.e. a liquid).

2 Individual sites may have certain limit values pre-determined in their licence.

3 After pre-treatment the material characteristics may have changed to an extent that allow the soil to be re-classified.

Hydrocarbons in Soils

WM3 uses the term Oil or Waste Oil to cover hydrocarbons products such as fuel oil, petrol or diesel. These are defined by WM3 as hazardous under an absolute entry in the List of Wastes. However hydrocarbons in soils are a mixture rather than a pure product and are therefore not absolute entries.

Known Oils

The simplest scenario is where the identity of the contaminating oil is known or can be identified. If the oil is known the manufacturer's or supplier's REACH compliant safety data sheet for the specific oil can be obtained and the hazard statement codes on that Safety Data Sheet can be used for the hazardous waste assessment.

Where the identity of the oil can only be identified down to a petroleum group level (i.e. the contaminating oil is known to be diesel, but the specific type/brand is unknown), then the classification of that petroleum group should be used in the assessment. The marker compounds associated with that petroleum group may be used to confirm carcinogenicity.

Oils may contain a range of hydrocarbons, so the presence of for instance Diesel Range Organics (DRO) does not enable the assessor to conclude that diesel is present. These hydrocarbons may have arisen from other oils, the laboratory needs

to provide an interpretation of the chromatograph to determine if it is consistent with diesel or weathered diesel as a whole.

The concentration of known oils should be determined using a method that as a minimum spans the range in which the carbon numbers for that known oil fall.

Unknown Oils

Where hydrocarbons are contaminating soils it is likely that the oil will be unknown or cannot be determined.

WM3 states that:

For contaminated land specific consideration must be given to the following before proceeding;

- The presence of other organic contaminants, for example solvents or coal tar that could be detected as hydrocarbons. Coal Tar is not an oil and is considered separately in WM3 example 2. Where the site history or investigation indicates the presence of hydrocarbons from oil and other sources (e.g. coal tar), and the origin of the hydrocarbons cannot reliably be assigned to either, then a worst case approach of considering the hydrocarbons both as waste oil (in accordance with this example) and from other sources, for example coal tar should be taken.
- The presence of diesel, or weathered diesel, should be specifically considered by the laboratory and where this is confirmed by the hydrocarbon profile the oil should be assessed as a known or identified oil (diesel).

The use of **marker compounds** is optional; however it is recommended that where possible the marker compounds should be used. WM3 states:

If the identity of the oil is unknown, and the petroleum group cannot be established, then the oil contaminating the waste can be classified as non-carcinogenic/mutagenic due to the presence of oil if all three of the following criteria are met:

- The waste contains benzo[a]pyrene (BaP) at a concentration of less than 0.01% (1/10,000th) of the TPH concentration (This is the carcinogenic limit specified in table 3.1 of the CLP for BaP)
- This has been determined by an appropriate and representative sampling approach in accordance with the principles set out in Appendix D of WM3, and
- The analysis clearly demonstrates, for example by carbon bands or chromatograph, and the laboratory has reasonably concluded that the hydrocarbons present have not arisen from petrol or diesel.

For example:

TPH Concentration (mg/kg)	Petrol or Diesel	BaP (mg/kg)	Classification
10,000	No	0.9	Non- Hazardous
1,000	No	Not available	Hazardous
1,000	Yes	Not relevant	Hazardous

References

1. Environmental Permitting (England and Wales) Regulations 2010 (as amended) (EP Regulations), the Landfill Directive (1999/31/EC) and the subsequent Council Decisions.
2. Environment Agency Environmental Permitting Regulations: "Inert Waste Guidance- Standards and Measures for the Deposit of Inert Waste on Land" 2009.
3. Environment Agency "Waste acceptance at landfills - Guidance on waste acceptance procedures and criteria" Nov 2010.
4. Environment Agency "Guidance on the classification and assessment of waste (Technical Guidance WM3)".
5. Classification, Labelling and Packaging of Substances Regulation (EC 1272/2008) (CLP).
6. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
7. 2014/955/EU: Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament
8. Environmental Permitting Guidance The Landfill Directive For the Environmental Permitting (England and Wales) Regulations 2010 Updated March 2010 Version 3.1
9. Classification, Labelling and Packaging of Substances Regulation (EC 1272/2008) (CLP).

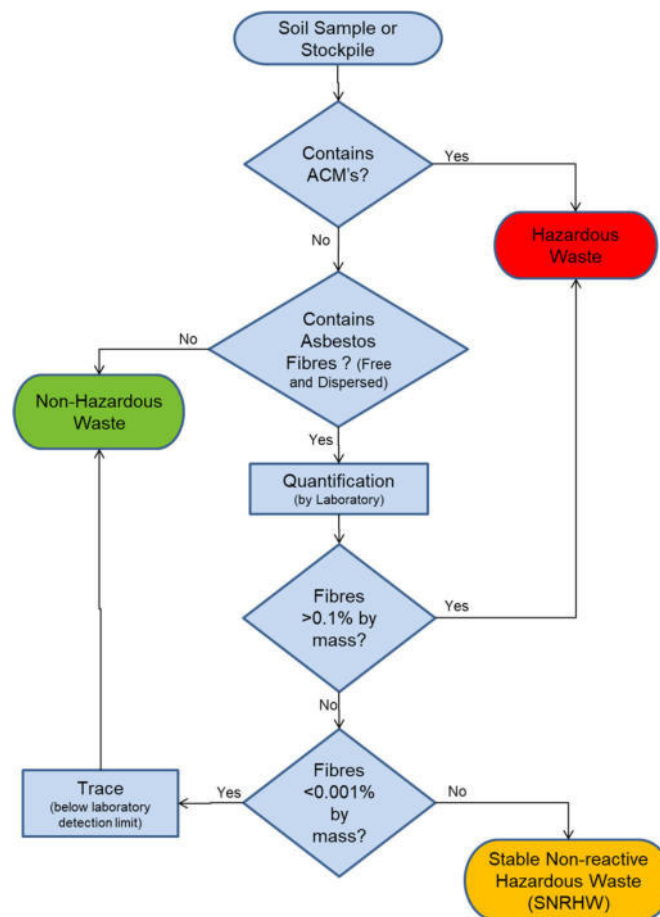
Additional Asbestos Guidance Notes

Disposal

The 1st Edition of WM3 “Guidance on the classification and assessment of waste”, details the way in which Asbestos is assessed within soils.

The assessment of asbestos containing waste is dependent on whether the asbestos is present as:

- Fibres that are free and dispersed, or
- Identifiable pieces of asbestos containing materials (ACM’s)



Identifiable pieces of asbestos are any particle of a size that can be identified as potentially being asbestos by a competent person if examined by the naked eye. The result is that commonly soils with visible ACM’s are sorted and the ACM’s removed by hand picking and separate disposal.

Asbestos concentrations below 0.001% by mass are below standard laboratory detection limits and are not currently regarded as containing asbestos for the purposes of disposal and may be disposed of to an inert landfill site¹. These levels are often termed “trace” by laboratories.

Asbestos concentrations between 0.001% and 0.1% are stable non-reactive hazardous waste (SNRHW)¹. Waste transfer stations where soil recycling takes place may be able to take SNRHW, but are unlikely to take soils containing asbestos above trace concentrations.

The following codes should be assigned to the asbestos waste as appropriate:

17 06	Insulation materials and asbestos-containing construction materials
17 06 01	Insulation materials containing asbestos
17 06 03	Other insulation materials consisting of or containing hazardous substances
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06 05	Construction material containing asbestos

WM3 indicates that 17 06 05 would normally be used in preference to 17 06 01 for the asbestos in asbestos contaminated soil and stones.

Construction materials containing asbestos and “*other suitable materials*” may be landfilled at landfills for non-hazardous waste in accordance with the Landfill Directive without testing.

This means that wastes that are only hazardous because of their asbestos content can be disposed of at landfills for non-hazardous waste in separate landfill cells that only accept asbestos wastes and other suitable materials. The Landfill Directive requires that stable non-reactive hazardous waste shall not be deposited with biodegradable waste (for example organic material, household waste, paper etc..) and must meet the waste acceptance criteria set out in accordance with Annex II.

Construction

Health and Safety Executive (HSE) guidance on asbestos is not directly related to soil and much of the guidance focuses on the removal of asbestos from buildings. The overarching legislation is the Control of Asbestos Regulation (CAR 2012). However where work involves (or is likely to involve) contact with asbestos then CAR 2012 requires a risk assessment including whether or not the work is licensed or notifiable non-licensed work and may require an Asbestos Management Plan. Work becomes notifiable if it is considered that the control limit could be exceeded.

Brownfield sites frequently have soils that contain asbestos and the presence of asbestos needs to be considered within the context of construction, particularly in relation to groundworks. The exposure of soils and the use of excavators and plant to move soil around increases the possibility of fibres becoming airborne. However it is good site practice to not generate dusts and to employ dust suppression on all sites regardless of the presence of asbestos.

The legal control limit for asbestos is 0.1f/ml over a continuous four hour period. The control limit is not a ‘safe’ level and exposure from work activities involving asbestos must be reduced to as far below the control limit as possible.

Clearly the higher the concentrations in the soil the greater potential there is for fibres to be released, however IOM publication TM/88/14 “the release of dispersed asbestos fibres from soil” 1988 concludes that:

- Mixtures of asbestos in dry soils with asbestos content as low as 0.001% can produce airborne respirable asbestos concentrations greater than 0.1f/ml in dust clouds where the respirable dust concentrations are less than 5mg/m³.
- An action limit is recommended of no higher than 0.001% asbestos in soils above which steps should be taken to minimise exposure to airborne fibres (eg by wetting).
- The addition of relatively small quantities (10%) of water can reduce the airborne fibre concentrations by an order of magnitude.

Where asbestos has been identified at concentrations above 0.001% as free and dispersed fibres in the soil precautions need to be adopted. Concentrations below this are considered to be normal background, although good site practice dictates that the generation of dusts should be avoided and therefore any fugitive fibre release from minor concentrations should be kept to a practical minimum.

End Use

The use of materials containing asbestos and material containing asbestos is prohibited under EU legislation. There is currently a Joint Industry Working Group (JIWG) tasked with producing a Code of Practice for Asbestos in Soil, Made Ground and Construction & Demolition Material that will clarify in due course the position of the various government agencies.

Asbestos containing materials can remain in situ under a suitable cover system which may be hardsurfacing or soft landscaping (with or without hard dig layers and markers).

There is a risk that future maintenance may compromise such systems and details of the presence of asbestos should be kept in the Health and Safety File.

Preliminary publications from JIWG (April 2015) provide guides for decision making in relation to construction. These are at a “Beta” test stage and further publications will be provided in due course.

The re-use of waste soils should be undertaken in accordance with the CL:AIRE Code of Practice and is subject to suitable risk assessments demonstrating low risk. There is nothing that specifically excludes the re-use of soils containing asbestos as fill to raise levels. However the movement of materials increases the risk of fibres becoming airborne and suitable precautions will be required.

The re-use of soils containing asbestos at concentrations above hazardous waste levels is likely to meet with regulatory opposition. Assuming a suitable strategy could be agreed this would take a considerable amount of time and is only likely to be feasible where there is a long program for implementation.

Asbestos in Soil as Free Fibres

Concentration (by weight)	Waste Disposal		Construction Issues		End Use	
	Recycle	Inert	SNR Hazardous	Hazardous	Suitable for re-use on site	Precautions
Not detected	✓	✓			Yes	None
Trace (<0.001%)		✓ ²			Yes Soils can be re-used under CL:AIRE CoP with the correct precautions in place.	Generally clean cover or hardstanding cover required.
0.001% – 0.099%			✓		Possibly Soils may be able to be re-used under CL:AIRE CoP, subject to a satisfactory Risk Assessment and regulatory agreement with the correct precautions in place.	Clean cover or hardstanding cover required.
0.1+%				✓	Unlikely ³ Re-use of soils containing asbestos within an earthworks scheme will involve significant engineering and the risk for generating dusts will be significantly increased with repeated handling and compaction.	Clean cover and a hard dig layer. A plan should be in place for future excavations as part of the Health and Safety File.

- The standard laboratory detection limit is normally 0.001%. Below 0.001% is trace and currently regarded as not containing asbestos for the purposes of disposal off site. However the waste producer has a duty to fully classify the waste and the presence of trace asbestos should be declared. Consequently it is unlikely that a waste treatment site will take this soil and an inert landfill may make a commercial decision to only take it under some circumstances.
- The re-use of soils containing asbestos at concentrations above hazardous waste is likely to meet with regulatory opposition. Assuming a suitable strategy could be agreed this would take a considerable amount of time and is only likely to be warranted where there a long program for implementation.

APPENDIX B

Exploratory Hole Logs



Borehole Log

Borehole No.

CP01

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353770E, 425988N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.53m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.50	B		0.50	30.03		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		0.70-0.90	D		0.70	29.83		Firm grey sandy CLAY. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=11 (1,2/3,3,2,3)					Firm brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=12 (1,2/3,3,3,3)					
		2.70-2.90	D		2.70	27.83			Firm reddish brown sandy CLAY. Sand is fine to coarse.
		3.00-3.45 3.00	D SPT	N=8 (1,2/2,2,2,2)					
		4.00-4.45	U						
		4.60-4.80	D		4.60	25.93			Firm brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
		5.00-5.45 5.00	D SPT	N=11 (1,2/2,2,3,4)					
		6.00-6.45 6.00	D SPT	N=13 (1,2/3,3,3,4)	5.90	24.63			Firm to stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
		7.50-7.95	U						
		8.60-8.80	D		8.60	21.93			Stiff brown sandy CLAY. Sand is fine to coarse.
9.00-9.45 9.00	D SPT	N=15 (2,2/3,3,4,5)							

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 8.00m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP01

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353770E, 425988N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.53m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95	U					
		12.00-12.45 12.00	D SPT	N=8 (1,2/2,2,2,2)	11.50	19.03		Firm brown slightly sandy CLAY. Sand is fine to coarse.
		12.80-13.00	D		12.80	17.73		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		13.50-13.95 13.50	D SPT	N=42 (6,7/8,10,12,12)				
		15.00-15.45 15.00	D SPT	N=44 (5,8/10,10,12,12)				
		15.70-15.80	D		15.70	14.83		
		16.00-16.20	D		16.00	14.53		Grey sandy GRAVEL with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone. Cobbles are subangular to subrounded up to 150mm of sandstone and mudstone.
		16.50-16.95 16.50	D SPT	N=27 (3,4/6,7,7,7)				Stiff brown slightly sandy CLAY. Sand is fine to coarse.
		17.50-17.70	D		17.50	13.03		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		18.00-18.45 18.00	D SPT	N≥50 (5,7/10,10,16,14)	18.00	12.53		Dense to very dense greyish brown gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse, subrounded of sandstone.
		19.00-19.45 19.00	D SPT	N≥50 (2,8/50 for 235mm)	19.39	11.15		End of Borehole at 19.39m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 8.00m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP02

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353617E, 425884N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.24m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.40	B		0.60	30.64	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).		
		1.20-1.65 1.20	D SPT	N=2 (1,0/1,0,0,1)	1.60	29.64	Soft to firm brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	1.0	
		1.60-1.80	D						
		2.00-2.45 2.00	D SPT	N=8 (1,2/2,2,2,2)			Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	2.0	
		3.00-3.45	U					3.0	
		3.90-4.00 4.00-4.45 4.00	D D SPT	N=8 (1,2/2,2,2,2)	3.90	27.34	Firm brown sandy CLAY. Sand is fine to coarse.	4.0	
		5.00-5.45 5.00	D SPT	N=11 (2,2/2,3,3,3)				5.0	
		6.00-6.45 6.00	D SPT	N=11 (2,2/3,2,3,3)				6.0	
		6.80-7.00	D		6.80	24.44	Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	7.0	
		7.50-7.95	U					8.0	
		9.00-9.45 9.00	D SPT	N=43 (7,8/10,10,11,12)				9.0	
		9.70-10.00	D		9.70	21.54	Soft brown slightly sandy silty CLAY. Sand is fine to coarse.	10.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 13.50m bgl, rising to 10.60m bgl after 20 minutes.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP02

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353617E, 425884N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.24m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		10.50-10.95	U		10.10	21.14		Firm to stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		11.40-11.60	D		11.40	19.84			
		12.00-12.45 12.00	D SPT	N \geq 50 (5,6/50 for 229mm)					Stiff brown sandy CLAY. Sand is fine to coarse.
		13.50-13.95 13.50	D SPT	N \geq 50 (4,4/12,13,17,8)	13.80 13.95	17.43 17.28			
								Dense brown fine to coarse SAND. End of Borehole at 13.95m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 13.50m bgl, rising to 10.60m bgl after 20 minutes.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP03

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353451E, 425791N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.98m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 30/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.40	B				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
		0.60-0.90	D		0.60	29.38	Firm brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone and sandstone.	1.0	
		1.20-1.65 1.20	D SPT	N=15 (2,2/3,3,4,5)	1.20	28.78	Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.		
		1.80-2.00 2.00-2.45 2.00	D D SPT	N=16 (2,3/3,4,4,5)				2.0	
		3.00-3.45	U		2.70	27.28	Stiff brown slightly sandy CLAY. Sand is fine to coarse.	3.0	
		3.60-3.80	D		3.60	26.38			
		4.00-4.45 4.00	D SPT	N=11 (1,2/2,3,3,3)			Firm reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	4.0	
		5.00-5.45 5.00	D SPT	N=13 (2,2/3,3,3,4)				5.0	
		6.00-6.45	U					6.0	
		7.20-7.30	D		7.20	22.78		7.0	
		7.50-7.95 7.50	D SPT	N=19 (2,3/4,4,5,6)			Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	8.0	
		9.00-9.45	U					9.0	
		10.00-10.20	D					10.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP03

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353451E, 425791N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.98m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 30/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95 10.50	D SPT	N=27 (4,5/6,6,7,8)				
		12.00-12.45 12.00	D SPT	N≥50 (5,7/10,12,15,13)			<p>Very stiff from with subangular to subrounded cobbles of sandstone and mudstone (up to 150mm) between 12.00m and 12.395 bgl.</p>	
		13.00-13.45 13.00	D SPT	N≥50 (5,8/50 for 245mm)	13.40	16.58		
End of Borehole at 13.40m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP04

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353208E, 425991N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.47m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	B		0.40	27.07		Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.40-1.00	D					Firm grey slightly sandy silty CLAY. Sand is fine to coarse.
		1.20-1.65	D		1.20	26.27		Firm brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		1.20	SPT	N=12 (1,2/2,3,3,4)				Firm to stiff brown slightly sandy CLAY. Sand is fine to coarse.
		1.90-2.00	D		1.90	25.57		Firm to stiff brown slightly sandy CLAY. Sand is fine to coarse.
		2.00-2.45	D					
		2.00	SPT	N=14 (2,2/3,3,4,4)				
		3.00-3.45	D		3.00			
		3.00	SPT	N=15 (2,2/3,3,4,5)				
		4.00-4.45	D		4.30	23.17		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		4.00	SPT	N=15 (1,2/3,4,4,4)				
		4.30-4.50	D					
		5.00-5.45	U					
5.45-5.50	D							
6.00-6.45	D		6.00					
6.00	SPT	N=17 (2,3/4,4,4,5)						
7.50-7.95	U		7.50	19.97		Stiff greyish brown slightly sandy silty CLAY. Sand is fine to coarse.		
8.70-8.80	D		8.70	18.77		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.		
9.00-9.45	U							
9.80-10.00	D		9.80	17.67		Stiff brown slightly sandy CLAY. Sand is fine to coarse.		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 6.80m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP04

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353208E, 425991N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.47m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95 10.50	D SPT	N=16 (2,3/3,4,4,5)				
		11.70-12.00	D		11.70	15.77	Stiff brownish grey slightly gravelly silty CLAY. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone. Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of mudstone.	
		12.00-12.45	U		12.00	15.47		
		13.50-13.95 13.50	D SPT	N=34 (4,6/8,8,9,9)				
		14.70-15.00	D					
		15.00-15.45 15.00	D SPT	N≥50 (6,7/50 for 235mm)				
		16.50-16.95 16.50	D SPT	N≥50 (5,8/50 for 190mm)	16.84	10.63		
		End of Borehole at 16.84m						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 6.80m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP05

Sheet 1 of 3

PROJECT NO: C4259

CO-ORDS: 353064E, 426195N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.32m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20 - 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	B		0.50	26.82	Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
		1.20-1.65 1.20	D SPT	N=8 (1,1/2,2,2,2)			Soft to firm brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		1.70-2.00	D					
		2.00-2.45 2.00	D SPT	N=7 (1,2/1,2,2,2)				
		2.60-2.80	D		2.60	24.72	Firm grey silty sandy CLAY. Sand is fine to coarse.	
		3.00-3.45	U		3.00	24.32	Firm brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		4.00-4.45 4.00	D SPT	N=12 (1,2/3,3,3,3)	4.00	23.32	Firm reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		5.00-5.45 5.00	D SPT	N=11 (1,3/2,3,3,3)				
		6.00-6.45	U					
		6.80-7.00	D					
		7.50-7.95 7.50	D SPT	N=10 (1,2/2,3,3,2)				
		9.00-9.45	U					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP05

Sheet 2 of 3

PROJECT NO: C4259

CO-ORDS: 353064E, 426195N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.32m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20 - 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95 10.50	D SPT	N=10 (1,1/2,2,3,3)				
		11.50	D					
		12.00-12.45 12.00	D SPT	N=15 (1,1/3,3,4,5)	12.00	15.32	Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		13.50-13.95 13.50	D SPT	N=19 (1,3/4,5,5,5)				
		15.00-15.45 15.00	D SPT	N=20 (2,4/4,5,5,6)				
		16.50-16.95	U					
		18.00-18.45 18.00	D SPT	N=19 (4,4/4,4,5,6)				
		20.00-20.45 20.00	D SPT	N=18 (1,4/4,4,5,5)				

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP05

Sheet 3 of 3

PROJECT NO: C4259

CO-ORDS: 353064E, 426195N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.32m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20 - 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					20.45	6.88		End of Borehole at 20.45m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP06

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352842E, 426377N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.08m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.50	B		0.45	27.63		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=7 (1,1/1,2,2,2)				Soft to firm brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	1.0
		2.00-2.45 2.00	D SPT	N=7 (1,2/2,2,1,2)					2.0
		2.70-3.00	D						
		3.00-3.45 3.00	D SPT	N=9 (2,2/2,3,2,2)	3.60	24.48			3.0
		4.00-4.45	U					Firm reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	4.0
		5.00-5.45 5.00	D SPT	N=9 (1,2/2,2,2,3)					5.0
		6.00-6.45 6.00	D SPT	N=10 (1,2/2,3,2,3)					6.0
		7.50-7.95	U						7.0
		9.00-9.45 9.00	D SPT	N=8 (1,1/2,2,2,2)					9.0
		10.00-10.20	D						10.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 13.50m bgl rising to 13.10m after 20 minutes; and encountered at 14.20m bgl rising to 11.80m bgl after 20 minutes.
3. Chiselling between 16.50m and 16.95m bgl for 60 minutes.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP06

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 352842E, 426377N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.08m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95	U					
		11.50-11.70	D					
		12.00-12.45 12.00	D SPT	N≥50 (6,7/50 for 225mm)				
		13.00-13.20	D					
		13.50-13.95 13.50	D SPT	N=38 (6,7/9,9,10,10)	13.50	14.58	Dense brown SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	
		14.80-15.00 15.00-15.45 15.00	D D SPT	N=42 (6,7/10,10,10,12)	14.20	13.88	Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		16.50	SPT	N≥50 (6,6/50 for 275mm)	14.80	13.28	Dense brown SAND and GRAVEL with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone. Cobbles are fine to coarse, angular to subangular of sandstone and mudstone up to 200mm in diameter.	
					16.95	11.13	End of Borehole at 16.95m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 13.50m bgl rising to 13.10m after 20 minutes; and encountered at 14.20m bgl rising to 11.80m bgl after 20 minutes.
3. Chiselling between 16.50m and 16.95m bgl for 60 minutes.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Borehole No.

CP07

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352710E, 426203N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.65m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20 - 18/06/20

Logged
Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.80-1.20	D		0.50 0.70		Brown fine to coarse SAND. Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=15 (2,3/3,4,4,4)				
		1.70-2.00	D					
		2.00-2.45 2.00	D SPT	N=7 (1,1/2,2,2)	2.00	24.65	Soft to firm brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		3.00-3.45 3.00	D SPT	N=7 (1,1/2,2,1,2)				
		3.60-4.00	D					
		4.00-4.45 4.00	D SPT	N=7 (1,1/2,2,1,2)				
		5.00-5.45	U					
		6.00-6.45 6.00	D SPT	N=7 (1,1/2,2,2,2)				
		7.50-7.95 7.50	D SPT	N=12 (2,2/3,3,3,3)	7.50	19.15	Soft to firm brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		8.00-8.10	D					
		9.00-9.45 9.00	D SPT	N=13 (1,2/3,3,3,4)				
		9.70-10.00	D		9.70	16.95	Firm brown slightly sandy gravelly CLAY. Sand is fine to coarse,	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Chiselling from 14.80-15.00m bgl for 45 minutes, and from 16.10-16.45m bgl for 30 minutes.
4. Hole could not be progressed past sandstone cobble.
5. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP07

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 352710E, 426203N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.65m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20 - 18/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		10.50-10.95 10.50	D SPT	N=25 (4,4/5,6,7,7)			subangular of mudstone. <i>Clay becoming stiff from 10.50m bgl.</i>	11.0	
		12.00-12.45 12.00	D SPT	N=28 (3,4/6,7,7,8)				12.0	
		13.10-13.20	D				<i>Medium to high cobble content from 13.10m bgl. Cobbles are subangular to subrounded up to 200mm of mudstone.</i>	13.0	
		13.50-13.95 13.50	D SPT	N≥50 (4,7/8,10,11,21)				14.0	
		15.30-15.75 15.30	D SPT	N=31 (4,6/7,7,8,9)			<i>Mudstone cobble encountered at 15.00m bgl.</i>	15.0	
		16.50-16.95 16.50	D SPT	N=40 (7,11/8,10,11,11)	16.95	9.70		16.0	
							End of Borehole at 16.95m	17.0	
								18.0	
								19.0	
								20.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Chiselling from 14.80-15.00m bgl for 45 minutes, and from 16.10-16.45m bgl for 30 minutes.
4. Hole could not be progressed past sandstone cobble.
5. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP08

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352807E, 426002N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.14m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.50	B		0.60	25.54	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
		1.20-1.65 1.20	D SPT	N=4 (1,1/1,1,1,1)	1.50	24.64	Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	1.0	
		2.00-2.45 2.00	D SPT	N=8 (1,1/2,2,2,2)			Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	2.0	
		2.70-3.00	D						
		3.00-3.45 3.00	D SPT	N=6 (1,1/1,2,2,1)				3.0	
		3.60-3.80	D						
		4.00-4.45 4.00	D SPT	N=9 (1,2/2,2,2,3)				4.0	
		5.00-5.45	U					5.0	
		5.60-5.80	D		5.60	20.54	Stiff reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of limestone, sandstone and mudstone.	6.0	
		6.00-6.45 6.00	D SPT	N=17 (1,1/3,4,4,6)				7.0	
		6.50-6.60	D						
		7.50-7.95 7.50	D SPT	N=21 (1,1/3,5,6,7)				8.0	
		9.00-9.45	U					9.0	
		9.70-9.90	D					10.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP08

Sheet 2 of 2

Hole Type

CP

Scale

1:50

PROJECT NO: C4259

CO-ORDS: 352807E, 426002N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.14m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95 10.50	D SPT	N=20 (2,2/4,5,5,6)				
		11.50-11.70	D		11.50	14.64	Stiff reddish brown slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone. Cobbles are subrounded of quartzite and limestone.	
		12.00-12.45 12.00	D SPT	N=35 (4,6/8,8,9,10)				
		13.50-13.95 13.50	D SPT	N=31 (4,5/7,7,8,9)				
		15.00-15.45	U					
		16.10-16.20	D		16.00	10.14	Stiff reddish brown very sandy CLAY. Sand is fine to coarse.	
		16.50-16.95 16.50	D SPT	N≥50 (6,10/50 for 190mm)			End of Borehole at 18.34m	
		18.00-18.45 18.00	D SPT	N≥50 (7,12/50 for 170mm)	18.34	7.80		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP09

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352922E, 425850N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.49m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.40	B				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
		0.60-0.80	D		0.60	26.89	Firm reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	1.0	
		1.20-1.65 1.20	D SPT	N=11 (1,2/2,3,3,3)				2.0	
		2.00-2.45 2.00	D SPT	N=12 (1,2/3,2,3,4)			Firm greyish brown slightly sandy CLAY. Sand is fine to coarse.	3.0	
		3.00-3.45 3.20-3.80	U D		2.80	24.69		4.0	
		4.00-4.45 4.00	D SPT	N=11 (1,2/3,3,3,2)	3.90	23.59	Firm reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	5.0	
		5.00-5.45	U					6.0	
		5.45-5.50	D				Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	7.0	
		6.00-6.45 6.00	D SPT	N=11 (1,2/3,3,3,2)				8.0	
		7.00-7.20	D		7.00	20.49		9.0	
		7.50-7.95 7.50	D SPT	N=21 (2,3/4,5,5,7)				10.0	
		9.00-9.45 9.00	D SPT	N=22 (1,4/4,5,6,7)					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP09

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 352922E, 425850N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.49m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50-10.95 10.50	D SPT	N=16 (1,2/3,4,4,5)				
		11.50-11.70	D					
		12.00-12.45	U					
		12.90-13.10	D		12.90	14.59		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		13.50-13.95 13.50	D SPT	N≥50 (6,7/50 for 255mm)	13.50	13.99		Very stiff to hard greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
		15.00-15.45 15.00	D SPT	N≥50 (5,8/50 for 235mm)	15.39	12.11		End of Borehole at 15.38m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP10

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353706E, 426334N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.37m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	B				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.40-0.60	D		0.40	30.97	Firm dark brown slightly sandy CLAY. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=10 (1,1/2,2,3,3)	1.20	30.17	Firm to stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		1.70-1.90	D					
		2.00-2.45 2.00	D SPT	N=15 (2,3/3,4,4,4)	2.40	28.97	Firm brown slightly sandy CLAY. Sand is fine to coarse.	
		3.00-3.45	U					
		4.00-4.45 4.00	D SPT	N=10 (1,1/2,2,3,3)				
		5.00-5.45 5.00	D SPT	N=11 (1,1/2,3,3,3)				
		5.60-5.80	D					
		6.00-6.45	U		6.00	25.37	Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		7.50-7.95 7.50	D SPT	N=16 (2,2/3,4,4,5)				
		9.00-9.45 9.00	D SPT	N=23 (4,5/5,5,6,7)				

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 10.00m bgl.
3. Hole installed to 12.00m bgl; 10.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with bentonite between 12.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

CP10

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353706E, 426334N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.37m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.30-10.50	D	N=15 (2,3/3,4,4,4)	10.30	21.07	Stiff brown slightly sandy CLAY. Sand is fine to coarse.	
		10.50-10.95 10.50	D SPT					
		12.00-12.45 12.00	D SPT	N≥50 (5,6/10,12,16,12)	12.30	19.07	Very dense brown fine to coarse SAND.	
		13.00-13.45 13.00	D SPT	N≥50 (10,10/50 for 180mm)	13.33	18.04	End of Borehole at 13.33m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 10.00m bgl.
3. Hole installed to 12.00m bgl; 10.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with bentonite between 12.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Borehole No.

BH01

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353688E, 426030N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.53m OD

Scale

1:50

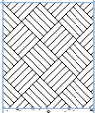

















CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged
Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.70	28.83		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		1.00	D		1.20	28.33		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
		1.20	D SPT	N=18 (2,3/4,4,5,5)				Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	2.0
		1.65	D						
		2.20-2.65	D SPT	N=19 (3,4/4,4,5,6)					
		2.20	D SPT		3.00	26.53			
		3.30-3.75	U					Stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	3.0
		3.80	D						4.0
		4.40-4.85	D SPT	N=14 (2,3/3,4,4,3)					5.0
		4.40	D SPT						
		5.50-5.95	D SPT	N=15 (3,3/3,4,4,4)					6.0
		5.50	D SPT						
		7.00-7.45	U						7.0
		7.50	D						8.0
		8.30-8.75	D SPT	N=15 (3,3/3,4,4,4)	8.30	21.23		Stiff brown slightly sandy CLAY. Sand is fine to coarse.	9.0
		8.30	D SPT						
		9.70-10.15	D SPT	N=16 (3,4/4,4,4,4)					10.0
		9.70	D SPT						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 10.00m bgl; 5.00m plain pipe and 5.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH02

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353556E, 425990N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.54m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		0.50	D		0.40	29.14	Firm brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		1.00	D		0.80	28.74		
		1.20-1.65	U				Firm reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		1.70	D					
		2.30-2.75	D		2.30	27.24	Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		2.30	SPT	N=14 (3,3/3,4,3,4)				
		3.20-3.65	D				Stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		3.20	SPT	N=14 (2,2/3,3,4,4)				
		4.40-4.85	D		4.60	24.94	Stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		4.40	SPT	N=19 (2,3/3,5,5,6)				
		5.50-5.95	U					
		6.00	D					
		7.10-7.55	D					
		7.10	SPT	N=23 (3,4/5,6,6,6)				
		8.50-8.95	D		8.50	21.04	Stiff brown slightly sandy CLAY. Sand is fine to coarse.	
		8.50	SPT	N=21 (4,4/4,5,6,6)				
		9.80-10.25	D					
		9.80	SPT	N=22 (4,5/5,5,6,6)				

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH02

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353556E, 425990N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.54m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

JM

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.25	19.29		End of Borehole at 10.25m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH03

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353723E, 425826N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.97m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.40	28.57	<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL). Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.</p> <p>Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.</p> <p>Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.</p>	
		0.70	D					
		1.20-1.65 1.20	D SPT	N=18 (2,3/4,4,5,5)				
		2.30-2.75 2.30	D SPT	N=20 (3,4/4,5,5,6)				
		3.50-3.95 3.50	D SPT	N=11 (1,2/2,3,3,3)	3.50	25.47		
		4.40-4.85 4.50-4.80	U D					
		5.50-5.95 5.50	D SPT	N=15 (2,3/3,4,4,4)	5.50	23.47		
		7.00-7.45 7.00	D SPT	N=16 (2,3/3,4,4,5)				
		7.50	D					
		8.30-8.75 8.30	D SPT	N=14 (3,3/4,3,4,3)				
		9.50-9.95	U					
		10.00	D		10.00	18.97	End of Borehole at 10.00m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Borehole No.

BH04

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353512E, 425880N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.96m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged
Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.30	27.66	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL). Firm reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
		0.40	D					
		1.20-1.65 1.20	D SPT	N=11 (2,2/2,3,3,3)	1.60	26.36	Firm to stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.10-2.55 2.10	D SPT	N=15 (2,3/3,4,4,4)				
		3.20-3.65	U					
		3.70	D					
		4.40-4.85 4.40	D SPT	N=14 (2,2/3,3,4,4)				
		5.40-5.85 5.40	D SPT	N=15 (3,3/3,4,4,4)				
		6.90-7.35 6.90	D SPT	N=14 (2,3/3,4,3,4)				
		8.30-8.75	U					
		8.80	D					
		9.90-10.35 9.90	D SPT	N=21 (3,4/5,5,5,6)	9.90	18.06		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH04

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353512E, 425880N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.96m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND


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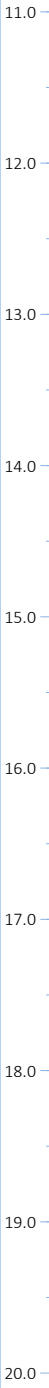
Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.35	17.61	 <p>Stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone. End of Borehole at 10.35m</p>	



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH05

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353313E, 425786N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.22m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.30	27.92		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.70	D					Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		1.20-1.65 1.20	D SPT	N=15 (3,3/3,4,4,4)	1.20	27.02		Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.10-2.55 2.10	D SPT	N=15 (3,4/4,3,4,4)				
		3.20-3.65	U					
		3.70	D					
		4.40-4.85 4.40	D SPT	N=15 (3,3/4,3,4,4)				
		5.50-5.95 5.50	D SPT	N=13 (3,4/3,3,4,3)				
		7.00-7.45	U					
		7.50	D					
8.40-8.85 8.40	D SPT	N=15 (3,4/4,3,4,4)	8.40	19.82	Firm to stiff brown slightly sandy silty CLAY. Sand is fine to coarse.			
9.70-10.15 9.70	D SPT	N=16 (3,4/4,4,4,4)						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH06

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353229E, 425896N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.13m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.20	27.93		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.50	D					Stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	1.0
		1.20-1.65 1.20	D SPT	N=20 (2,2/4,5,5,6)					2.0
		2.30-2.75 2.30	D SPT	N=22 (3,4/5,5,6,6)					3.0
		3.30-3.75 3.30	D SPT	N=19 (3,3/4,4,5,6)					4.0
		3.50-3.95	D						4.0
		4.40-4.85	U		4.40	23.73		Firm to stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	5.0
		4.90	D						5.0
		5.50	SPT	N=15 (3,3/3,4,4,4)					6.0
		7.10-7.55 7.10	D SPT	N=13 (3,4/3,4,3,3)					7.0
		8.40-8.85	U						8.0
		8.90	D						9.0
		9.80-10.25 9.80	D SPT	N=14 (3,3/4,4,3,3)	9.50	18.63		Firm to stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	10.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH06

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353229E, 425896N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.13m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

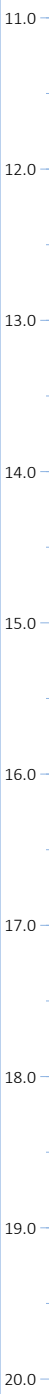
Logged

JM

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.25	17.88	End of Borehole at 10.25m	



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH07

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353341E, 426055N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.38m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES				Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.50	D		0.50		Soft brown slightly sandy silty CLAY. Sand is fine to coarse.	
		1.20-1.65	D		1.00		Firm to stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	
		1.20	SPT	N=13 (2,2/2,3,4,4)				
		2.20-2.65	D		2.00			
		2.20	SPT	N=18 (3,4/4,4,5,5)				
		3.30-3.75	U		3.00			
		3.80	D		4.00			
		4.30-4.75	D		4.30		Stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, quartz, sandstone and mudstone.	
		4.30	SPT	N=14 (3,3/3,4,3,4)				
		5.40-5.85	D		5.00			
		5.40	SPT	N=15 (2,3/3,4,4,4)				
		6.90-7.35	U		6.00			
		7.40	D		7.40		Firm to stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	
		8.40-8.85	D		8.00			
		8.40	SPT	N=22 (3,4/5,5,6,6)				
		9.80-10.25	D		9.00			
		9.80	SPT	N=29 (5,6/7,7,7,8)				

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH07

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353341E, 426055N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.38m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

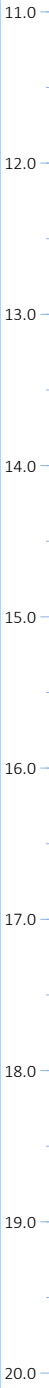
Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.25	18.13		End of Borehole at 10.25m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH08

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353405E, 426238N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.25m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20 - 16/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.40	28.85		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.70	D					Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65	D		3.00	26.25		Firm to stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
		1.30	SPT	N=20 (3,4/5,5,5,5)				
		2.20-2.65	D		7.00	22.25		Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.20	SPT	N=21 (4,4/5,5,5,6)				
		3.20-3.65	U		9.90	19.35		
		3.70	D					
		4.30-4.75	D					
		4.30	SPT	N=12 (2,2/2,3,3,4)				
	5.40-5.85	D						
	5.40	SPT	N=14 (3,3/3,3,4,4)					
	7.00-7.45	U						
	7.50	D						
	8.40-8.85	D						
	8.40	SPT	N=16 (3,4/4,4,4,4)					
	9.90-10.35	D						
	9.90	SPT	N=15 (3,3/3,4,4,4)					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 10.00m bgl; 3.00m plain pipe, 7.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m and 10.35m bgl.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH08

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353405E, 426238N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.25m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND


DATES: 15/06/20 - 16/06/20

Logged

JM

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.35	18.90		Firm to stiff brown slightly sandy silty CLAY. Sand is fine to coarse. End of Borehole at 10.35m
								11.0
								12.0
								13.0
								14.0
								15.0
								16.0
								17.0
								18.0
								19.0
								20.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 10.00m bgl; 3.00m plain pipe, 7.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m and 10.35m bgl.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Borehole No.
BH09

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353302E, 426107N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.31m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

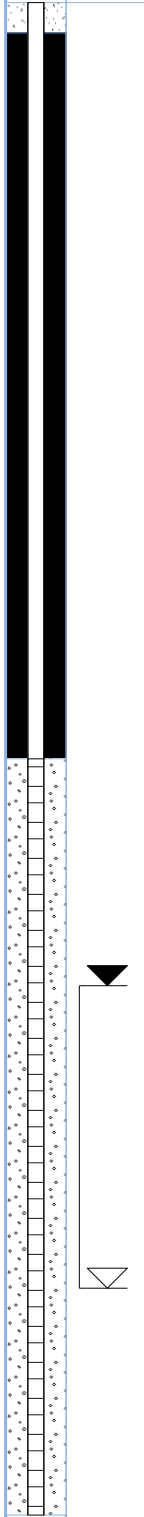

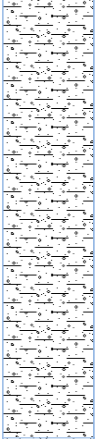
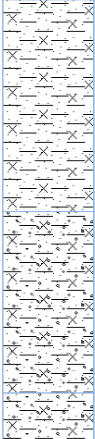
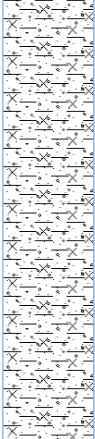
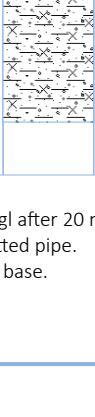
DATES: 09/06/20

Logged

NS

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.40	28.91		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone. (TOPSOIL)
		0.60	D					Stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine, subrounded, of sandstone, quartzite and mudstone.
		1.20-1.65	D		3.40	25.91		Firm brown slightly sandy silty CLAY. Sand is fine.
		1.20	SPT	N=10 (1,2/2,2,3,3)				
		2.20	SPT	N=12 (1,2/2,3,3,4)	6.00	23.31		Very stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine, subrounded of sandstone and mudstone.
		2.30-2.75	U					
		2.80	D		8.60			
		3.40-3.85	D					
		4.20	D		9.70			
		4.30-4.75	D					
		4.30	SPT	N=19 (3,3/4,4,5,6)				
		5.40	SPT	N=18 (3,4/4,4,5,5)				
		5.50-5.95	U					
		6.00	D					
	7.10-7.55	D						
	8.00	D						
	8.50-8.95	D						
	8.60	SPT	N=20 (3,4/4,5,5,6)					
	9.60-10.05	D						
	9.70	SPT	N=22 (3,4/5,5,6,6)					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 8.50m bgl rising to 6.50m bgl after 20 minutes.
3. Hole installed to 10.00m bgl; 5.00m plain pipe, 5.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH10

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353192E, 426379N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.94m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

NS

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20			25.74		Grass over dark brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone (TOPSOIL). Stiff dark greyish brown mottled grey and orange brown slightly sandy silty CLAY. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=14 (3,3/3,4,3,4)				
		2.20-2.65	D					
		3.30-3.75 3.40	U SPT	N=9 (2,2/2,2,2,3)	3.30	22.64	Stiff dark brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, quartz and sandstone.	
		3.80	D					
		4.10	D					
		4.30-4.75 4.30	D SPT	N=14 (2,3/3,3,4,4)				
		4.80			4.80	21.14	Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subrounded of limestone, quartz and sandstone.	
		5.40-5.85	D					
		7.00-7.45 7.10	U SPT	N=18 (3,3/4,4,5,5)				
		7.50	D					
		8.50	SPT	N=21 (3,4/5,5,5,6)	8.50	17.44	Very stiff reddish brown slightly sandy silty CLAY. Sand is fine to coarse.	
		8.60-9.05	D					
		9.30	D					
		9.60	SPT	N=19 (4,4/4,5,5,5)				
		9.70-10.15	D					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 9.00m bgl, rising to 8.00m bgl after 20 minutes.
3. Hole installed to 10.00m bgl, 3.00m plain pipe, 7.00m slotted pipe.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH10

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353192E, 426379N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.94m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

NS

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.15	15.79		End of Borehole at 10.15m
								11.0
								12.0
								13.0
								14.0
								15.0
								16.0
								17.0
								18.0
								19.0
								20.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 9.00m bgl, rising to 8.00m bgl after 20 minutes.
3. Hole installed to 10.00m bgl, 3.00m plain pipe, 7.00m slotted pipe.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Borehole No.

BH11

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352710E, 426414N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.17m OD

Scale

1:50

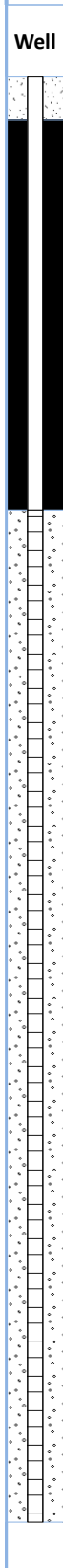




CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20-0.40	ES		0.40	27.77		Grass over black gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine, subangular of coal and sandstone (TOPSOIL).
		0.70	D					Stiff brown mottled grey and orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, quartz, quartzite and sandstone.
		1.20-1.65 1.20	D SPT	N=13 (2,2/3,3,3,4)				
		2.20-2.65 2.20	D SPT	N=20 (4,4/5,5,5,5)	2.20	25.97		Very stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, quartz, quartzite and sandstone.
		3.00	D					
		3.30-3.75 3.30	D SPT	N=18 (3,4/4,4,5,5)				
		4.40-4.85	U					
		4.90	D					
		5.50-5.95 5.50	D SPT	N=17 (2,3/2,5,5,5)				
		7.00-7.45 7.00	D SPT	N=23 (3,4/5,5,6,7)				
		8.40-8.85	U		8.40	19.77		Very stiff reddish brown slightly sandy silty CLAY. Sand is fine to coarse.
		8.90	D					
	9.60-10.05 9.60	D SPT	N=21 (4,4/4,5,6,6)					

Remarks

- Hand dug inspection pit to 1.20m bgl.
- Groundwater encountered at 9.00m bgl, rising to 8.00m bgl after 20 minutes.
- Hole installed to 10.00m bgl; 3.00m plain pipe, 7.00m slotted pipe.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH12

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352708E, 426061N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.05m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20 - 12/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.40	29.65	<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Stiff to very stiff brown mottled orange and grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p>	
		0.60	D					
		1.20-1.65	D					
		1.20	SPT	N=21 (3,4/5,5,5,6)				
		2.20-2.65	U					
		2.70	D					
		3.40-3.85	D					
		3.40	SPT	N=20 (3,4/5,5,5,5)				
		4.50-4.95	D					
		4.50	SPT	N=18 (3,3/4,4,5,5)				
		5.00	D					
		5.50-5.95	D					
		5.50	SPT	N=17 (3,3/4,4,4,5)				
		7.10-7.55	D					
		7.10	SPT	N=16 (3,3/4,4,4,4)				
		8.50-8.95	U		8.50	21.55	<p>Firm to very stiff brown slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p>	
		9.00	D					
		10.00-10.45	D					
		10.00	SPT	N=15 (3,3/3,4,4,4)				

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 10.00m bgl; 5.00m plain pipe and 5.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH12

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 352708E, 426061N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.05m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20 - 12/06/20

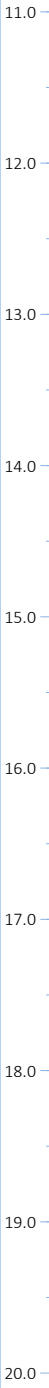
Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.45	19.60		End of Borehole at 10.45m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 10.00m bgl; 5.00m plain pipe and 5.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH13

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352922E, 426062N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.91m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.40	29.51		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.80	D					Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.20-1.65	U					
		1.70	D					
		2.10-2.55	D					
		2.10	SPT	N=14 (2,3/3,3,4,4)				
		3.20-3.65	D					
		3.20	SPT	N=8 (1,2/2,2,2,2)	3.30	26.61		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		3.70	D					
		4.40-4.85	D					
4.40	SPT	N=14 (2,3/3,3,4,4)	4.40	25.51	Stiff to very stiff brown mottled grey slightly sandy CLAY. Sand is fine to coarse.			
5.50-5.95	D							
5.50	SPT	N=21 (2,3/4,5,5,7)	5.50	24.41	Stiff to very stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz and mudstone.			
5.70	D							
7.10-7.55	U							
7.60	D							
8.30-8.75	D							
8.30	SPT	N=19 (3,4/4,5,5,5)						
9.70-10.15	D							
9.70	SPT	N=19 (3,3/4,4,5,6)						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 5.50m bgl, rising to 4.20m bgl after 20 minutes.
3. No recovery within SPT at 3.20m and 5.50m bgl
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Borehole No.
BH14

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353064E, 425882N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.98m OD

Scale

1:50


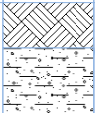
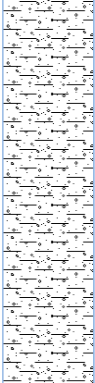
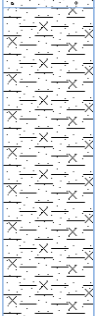
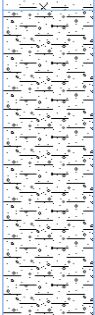
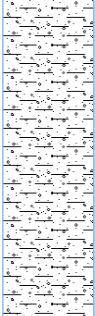


CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged
Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.30	28.68		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
		0.50	D					Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	
		1.20-1.65	D					Firm to stiff brown sandy silty CLAY. Sand is fine to coarse.	
		1.20	SPT	N=12 (2,2/2,3,3,4)					
			2.30-2.80	U					
			2.80	D					
			3.30-3.75	D		3.30	25.68		Firm to stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.
			3.30	SPT	N=13 (2,2/3,3,3,4)				
			3.40-3.85	U					
			3.90	D					
		4.40-4.85	D					Firm to stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	
		4.40	SPT	N=15 (3,3/3,4,4,4)					
		6.90-7.35	D					Firm to stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	
		6.90	SPT	N=19 (3,3/4,4,5,6)					
		8.40-8.85	D					Firm to stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	
		8.40	SPT	N=20 (3,4/5,5,5,5)					
		9.70-10.15	D					Firm to stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	
		9.70	SPT	N=20 (3,3/5,5,5,5)					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered
3. Hole installed to 9.70m bgl; 3.00m plain pipe and 6.70m slotted pipe.
4. Hole backfilled with arisings between 9.70m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Borehole No.

BH15

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 352947E, 425755N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.15m OD

Scale

1:50


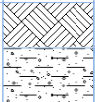








CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged
Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10-0.30	ES		0.30	29.85		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.60	D					Stiff to very stiff brown mottled orange and grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		1.20-1.65	U						
		1.70	D						
		2.10-2.55	D			2.10	28.05		Stiff to very stiff brown mottled orange slightly gravelly sandy CLAY with sand lenses. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		2.10	SPT	N=18 (3,4/4,4,5,5)					
		3.30-3.75	D			3.30	26.85		Stiff to very stiff brown mottled grey sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of quartz and mudstone.
		3.30	SPT	N=15 (3,3/3,4,4,4)					
		4.00	D						
		4.50-4.95	D			4.50			Stiff to very stiff brown slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz and mudstone.
	4.50	SPT	N=16 (3,3/4,4,4,4)						
	5.40-5.85	D			5.40			Stiff to very stiff brown slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz and mudstone.	
	5.40	SPT	N=17 (3,3/4,4,4,5)						
	6.80				6.80	23.35		Stiff to very stiff brown slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz and mudstone.	
	7.10-7.55	U							
	7.60	D							
	8.40-8.85	D			8.40	21.75		Stiff to very stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz and mudstone.	
	8.40	SPT	N=15 (3,4/3,4,4,4)						
	9.00	D							
	10.00-10.45	D			10.00			Stiff to very stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz and mudstone.	
	10.00	SPT	N=16 (3,4/4,4,4,4)						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 2.80m bgl, rising to 2.50m bgl after 20 minutes.
3. Hole installed to 7.00m bgl; 1.00m plain pipe and 6.00m slotted pipe.
4. Hole backfilled with arisings between 7.00m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH15

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 352947E, 425755N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.15m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

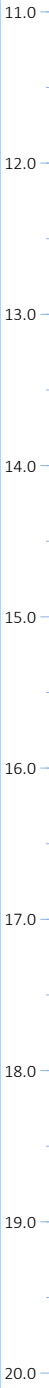
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Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.45	19.70		End of Borehole at 10.45m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 2.80m bgl, rising to 2.50m bgl after 20 minutes.
3. Hole installed to 7.00m bgl; 1.00m plain pipe and 6.00m slotted pipe.
4. Hole backfilled with arisings between 7.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH16

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353127E, 425747N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.94m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10-0.30	ES		0.30	30.64		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.50	D					Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65	U					
		1.70	D					
		2.30-2.70	D					
		2.30	SPT	N=20 (3,4/5,5,5,5)				
		2.50	D					
		3.20-3.65	D					
		3.20	SPT	N=22 (4,4/5,5,6,6)				
		4.30-4.75	D		4.30	26.64		Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	4.30	SPT	N=18 (2,3/4,4,5,5)					
	5.50-5.95	U						
	6.00	D						
	7.10-7.55	D						
	7.10	SPT	N=15 (3,3/4,4,3,4)					
	8.50-8.95	D		8.50	22.44		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	
	8.50	SPT	N=15 (3,3/3,4,4,4)					
	9.90-10.35	D						
	9.90	SPT	N=13 (2,3/3,3,3,4)					

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 4.30m bgl rising to 4.00m bgl after 20 minutes.
3. Hole installed to 10.00m bgl; 3.00m plain pipe and 7.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH16

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353127E, 425747N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.94m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

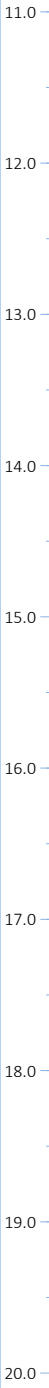
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Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.35	20.59		End of Borehole at 10.35m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 4.30m bgl rising to 4.00m bgl after 20 minutes.
3. Hole installed to 10.00m bgl; 3.00m plain pipe and 7.00m slotted pipe.
4. Hole backfilled with arisings between 10.00m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Borehole No.

BH17

Sheet 1 of 2

PROJECT NO: C4259

CO-ORDS: 353010E, 426255N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.58m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				MADE GROUND: Grass over dark brown gravelly sand. Sand is fine to coarse of ash. Gravel is fine to coarse, angular to subrounded of glass, clinker, sandstone and limestone.	
		0.60-0.80	ES		0.50		<i>Cobble of clinker encountered between 0.20m and 0.25m bgl.</i> Soft to firm dark grey mottled brown slightly sandy silty CLAY with fine rootlets. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=4 (1,0/1,0,1,2)	1.50	30.08		
		1.50-2.00	D				Loose dark grey very gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of quartz, quartzite, mudstone and sandstone.	
		2.00	SPT	N=10 (1,2/2,2,3,3)	2.00	29.58	Soft to firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of quartz, quartzite, mudstone and sandstone.	
		3.00	SPT	N=14 (2,2/3,3,4,4)				
		4.00	SPT	N=18 (2,3/4,4,5,5)	4.00	27.58	Soft reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, mudstone and sandstone.	
		4.50-5.00	U					
		5.00	SPT	N=14 (2,3/3,3,4,4)				
		6.00-6.45 6.00	D SPT	N=18 (3,3/4,4,5,5)				
		7.00	SPT	N=19 (3,4/4,4,5,6)				
		8.00	SPT	N=20 (3,3/4,5,5,6)	8.00	23.58	Soft reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, mudstone and sandstone.	
		8.50-9.00	U					
		9.00	SPT	N=21 (3,4/4,5,6,6)				
		10.00-10.45 10.00	D SPT	N=23 (3,4/5,6,6,6)	10.00	21.58		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Cable percussive borehole undertaken with window sample rig due to access restrictions.
4. Hole installed to 10.00m bgl; 4.00m plain pipe, 6.00m slotted pipe.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Borehole No.

BH17

Sheet 2 of 2

PROJECT NO: C4259

CO-ORDS: 353010E, 426255N

Hole Type

CP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.58m OD

Scale

1:50

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
							End of Borehole at 10.45m	11.0 12.0 13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Cable percussive borehole undertaken with window sample rig due to access restrictions.
4. Hole installed to 10.00m bgl; 4.00m plain pipe, 6.00m slotted pipe.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS01

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353768E, 426062N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.28m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.37	ES		0.37	29.91		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
		0.68-0.86	ES		0.68	29.60		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		0.86			0.86	29.42		Brownish grey slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=13 (1,2/2,3,4,4)				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=15 (2,2/3,3,4,5)				
	3.00-3.45 3.00	D SPT	N=15 (2,2/3,4,4,4)					
	4.00	SPT	N=16 (2,3/3,4,4,5)		4.45	25.83		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS02

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353652E, 426037N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.12m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	30.72	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		1.20-1.75 1.20	D SPT	N=16 (2,3/3,4,4,5)	1.50	29.62	Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=16 (2,3/3,4,4,5)			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=13 (2,2/2,3,4,4)				
		4.00	SPT	N=15 (1,2/3,4,4,4)	4.45	26.68	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS03

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353698E, 425991N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.87m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		0.30-0.65	ES		0.30 29.57			Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
					0.65 29.22			
		1.20-1.75 1.20	D SPT	N=15 (2,2/3,4,4,4)				
		2.00-2.45 2.00	D SPT	N=16 (2,3/3,4,4,5)				
	3.00-3.45 3.00	D SPT	N=14 (2,2/3,3,4,4)					
	4.00-4.45 4.00	D SPT	N=15 (2,2/3,3,4,5)					
				4.45	25.42		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS04

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353652E, 425967N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.43m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
				0.50	28.93		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=16 (1,2/3,4,4,5)	0.94 1.00		Brownish grey slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=10 (1,2/2,2,3,3)			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=12 (2,2/2,3,3,4)				
		4.00	SPT	N=16 (2,2/3,4,4,5)				
				4.45	24.98		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS05

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 353627E, 425991N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.02m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		0.30-0.40	ES		0.30 0.40	29.72 29.62	Very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		1.20	SPT	N=8 (2,2/2,2,2,2)	1.20	28.82	Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00	D SPT	N=10 (3,3/2,2,3,3)			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00	D SPT	N=11 (2,2/2,3,3,3)				
		4.00	SPT	N=11 (2,2/3,3,2,3)				
					4.45	25.57	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 1.20m bgl.
4. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS07

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353688E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.38m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.37	ES		0.37	31.01	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=14 (2,2/3,3,4,4)	1.53	29.85	Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=18 (3,3/4,4,5,5)			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=12 (2,2/3,3,3,3)				
		4.00	SPT	N=12 (2,2/3,3,3,3)				
					4.45	26.93	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS08

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353698E, 425850N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.22m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.29	ES		0.29	28.92	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL). Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=15 (2,3/3,4,4,4)	0.97	28.24		
		2.00-2.45 2.00	D SPT	N=13 (2,2/2,3,4,4)			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=10 (2,2/2,2,3,3)				
		4.00-4.45 4.00	D SPT	N=9 (2,2/2,2,2,3)	4.45	24.76		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS09

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353733E, 425861N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.89m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.29	ES		0.29 0.38	29.60 29.51		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
								Very stiff brownish grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
									Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=15 (2,2/3,3,4,5)	1.00	28.89			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=15 (2,2/3,4,4,4)					
	3.00-3.45 3.00	D SPT	N=11 (2,2/2,3,3)						
	4.00	SPT	N=10 (2,2/2,2,3,3)						
				4.45	25.44			End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS10

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353678E, 425884N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.69m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.45	ES		0.47	29.22		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
		0.67-1.54	ES		0.67	29.02		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=11 (2,2/3,3,3,2)	1.54	28.15		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=11 (3,2/2,3,3,3)				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		3.00-3.45 3.00	D SPT	N=11 (3,2/2,3,3,3)	3.40 3.42	26.29 26.27		Loose to medium dense reddish brown slightly gravelly SAND. Sand is fine to coarse. Gravel is fine, angular to subangular of quartz and mudstone.
		4.00	SPT	N=11 (2,2/2,3,3,3)	4.45	25.24		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage encountered at 3.40m bgl.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS11

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353698E, 425921N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.48m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.30	29.18		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
					0.50	28.98		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
									Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=11 (3,3/3,3,2,3)	1.34	28.14		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=12 (3,3/3,3,3,3)					
		3.00-3.45 3.00	D SPT	N=12 (2,3/2,3,3,4)					
		4.00	SPT	N=15 (4,3/4,4,3,4)					
					4.45	25.03		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS12

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353617E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.28m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	28.88		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).</p> <p>Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p> <p>Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p> <p>Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY with sand lenses. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p> <p>Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p>
		1.20-1.65 1.20	D SPT	N=3 (1,1/0,1,1,1)	1.20	28.08		
		2.00-2.45 2.00	D SPT	N=9 (3,2/2,2,3,2)				
		3.00-3.45 3.00	D SPT	N=26 (4,4/7,7,6,6)				
		4.00	SPT	N=16 (3,3/3,4,4,5)	4.45	24.83		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage encountered at 1.30m bgl.
3. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS13

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353627E, 425850N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.08m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		0.35-0.40	ES		0.35 0.40	28.73 28.68	Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=6 (1,1/1,1,2,2)	1.40	27.68	Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=7 (1,1/2,1,2,2)			Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=8 (2,2/2,2,2,2)				
		4.00	SPT	N=9 (2,3/2,2,2,3)				
					4.45	24.63	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS15

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353560E, 425924N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.94m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
					0.50	28.44		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=6 (1,1/1,1,2,2)	1.20	27.74		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=11 (3,3/3,2,3,3)				
		3.00-3.45 3.00	D SPT	N=9 (2,2/2,2,3)				
	4.00-4.45 4.00	D SPT	N=11 (2,3/2,3,3,3)	4.45	24.49		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS16

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353476E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.80m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.30	28.50		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	1.0 2.0 3.0 4.0 5.0 6.0
		0.40-0.70	ES						
		0.90-1.00	D		0.90 1.00	27.90 27.80			
		1.20-1.65 1.20	D SPT	N=11 (1,2/2,3,3,3)				Stiff brown mottled orange and grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	
		2.00	SPT	N=12 (2,2/2,3,3,4)	1.90	26.90	Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.		
		3.00-3.45 3.00	D SPT	N=20 (2,3/4,5,5,6)	3.10 3.20	25.70 25.60	Medium dense brown fine to coarse SAND. Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.		
		4.00	SPT	N=18 (3,3/4,4,5,5)					
					4.45	24.36		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS17

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353405E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.67m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES		0.25	28.42		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
					0.40	28.27		Stiff dark grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=11 (2,2/2,3,3,3)		1.70	26.97		Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=19 (2,3/4,4,5,6)					Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		3.00	SPT	N=24 (3,4/5,6,6,7)					
	4.00	SPT	N=18 (3,3/4,4,5,5)		4.45	24.22		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS18

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353380E, 425791N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.53m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	28.23	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.80-1.00	D				Stiff brown mottled orange and grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone, sandstone and mudstone.	
		1.20	SPT	N=12 (2,2/3,3,3,3)				
		2.00-2.45 2.00	D SPT	N=14 (2,3/3,3,4,4)	1.90	26.63	Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		3.00	SPT	N=14 (2,2/3,3,4,4)				
		4.00	SPT	N=18 (2,3/4,4,5,5)				
					4.45	24.08	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS19

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353335E, 425744N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.40m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES		0.25	28.15		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.80-1.00	ES					Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone, sandstone and mudstone.
		1.20-1.65 1.20	D SPT	N=14 (2,3/3,3,4,4)				
		2.00-2.45 2.00	D SPT	N=13 (2,2/3,3,4,4)	2.00	26.40		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		3.00	SPT	N=14 (2,2/3,3,4,4)				
	4.00	SPT	N=12 (2,2/2,3,3,4)					
				4.45	23.95			End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 2.00m bgl; 0.50m plain pipe and 1.50m slotted pipe.
4. Hole backfilled with arisings between 2.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS20

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 353297E, 425827N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.26m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	27.96	<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone, sandstone and mudstone. Cobbles are subrounded to rounded of granite and limestone</p>	
		0.50-0.80 0.50	D HSV	120kPa	1.20	27.06		
							End of Borehole at 1.20m	



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS21

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 425744N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.13m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.20	27.93		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.60-0.80	D						Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.
		1.20	SPT	N=17 (2,3/4,4,4,5)					Stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		2.00	SPT	N=21 (3,4/4,5,6,6)	2.00	26.13			
		3.00-3.45 3.00	D SPT	N=21 (3,3/4,5,6,6)					
4.00	SPT	N=18 (3,3/4,4,5,5)			4.45	23.68			
								End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS22

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353161E, 425726N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.99m OD

Scale

1:30


CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	27.69		
		0.40-0.60	ES					
		1.20-1.65 1.20	D SPT	N=14 (2,3/3,3,4,4)	2.00	25.99		
		2.00-2.45 2.00	D SPT	N=19 (2,3/4,4,5,6)				
		3.00	SPT	N=22 (3,3/4,5,6,7)	3.20	24.79		
					3.30	24.69		
		4.00	SPT	N=18 (2,3/4,4,5,5)	4.45	23.54		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage encountered at 3.20m bgl.
3. Hole installed to 4.00m bgl; 2.00m plain pipe and 4.00m slotted pipe.
4. Hole backfilled with arisings between 2.00m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS23

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353239E, 425791N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.85m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	27.65		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.20-1.00	ES					Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, sandstone and mudstone.
		1.20-1.65	D	N=9 (2,2/2,2,2,3)	2.00	25.85		Firm reddish brown slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of limestone, sandstone and mudstone.
		1.20	SPT					
		2.00-2.45	D	N=14 (3,3/3,3,4,4)	2.80	25.05		Firm brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.
2.00	SPT							
3.00	SPT	N=13 (2,3/3,3,3,4)	4.45	23.40		End of Borehole at 4.45m		
4.00	SPT	N=16 (3,3/4,4,4,4)						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS24

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353172E, 425797N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.72m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.28	27.44		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
								Stiff brown mottled orange gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular of sandstone and mudstone.
		1.20	D SPT	N=15 (1,2/3,4,4,4)	1.26	26.46		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00	D SPT	N=21 (2,3/4,5,5,7)				
		3.00	D SPT	N=24 (3,4/5,5,7,7)				
	4.00	SPT	N=25 (3,4/5,6,7,7)					
				4.45	23.27		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS25

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353194E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.58m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.32	27.26		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.50	D					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sandstone and mudstone.
		1.20	SPT	N=12 (2,2/2,3,3,4)	1.10	26.48		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.50	D					
		2.00	SPT	N=21 (3,4/4,5,6,6)				
		2.50	D					
		3.00	SPT	N=16 (3,3/3,4,4,5)				
		4.00	SPT	N=22 (3,4/4,5,6,7)				
				4.45	23.13		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS26

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 353170E, 425876N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.56m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.36	ES		0.36	29.20		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=14 (2,3/3,3,4,4)	1.35	28.21		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=16 (2,3/4,4,4,4)				
		3.00-3.45 3.00	D SPT	N=13 (2,2/3,3,3,4)				
		4.00	SPT	N=17 (2,3/3,4,5,5)				
				4.45	25.11			End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS27

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353239E, 425861N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.56m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.26		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.40-0.60	ES					27.56
		1.20-1.65 1.20	D SPT	N=17 (2,3/3,4,5,5)	2.00	27.56		
		2.00-2.45 2.00	D SPT	N=18 (3,3/3,4,5,6)				3.00
		3.00	SPT	N=16 (4,3/3,4,4,5)				
	4.00	SPT	N=14 (2,3/3,3,3,5)	4.45	25.11			
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 2.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS28

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.55m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.25		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.60-0.70	D					Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.
		1.20-1.65 1.20	D SPT	N=14 (3,3/3,3,4,4)				
		2.00	SPT	N=19 (3,3/4,5,5,5)	2.00	27.55		Stiff reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.
		3.00	SPT	N≥50 (3,3/50 for 290mm)				
					3.44	26.11		End of Borehole at 3.44m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage encountered at 2.00m bgl.
3. Hole installed to 3.40m bgl; 1.40m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with arisings between 3.40m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS29

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353335E, 425814N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.54m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.40-0.70	ES		0.40	29.14	Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=13 (2,3/3,3,3,4)				
		2.00	SPT	N=17 (3,3/4,4,4,5)				
		3.00	SPT	N=16 (2,3/3,4,4,5)	3.10	26.44	Firm reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	
	4.00	SPT	N=14 (2,3/3,3,3,5)					
				4.45	25.10		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS30

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353310E, 425861N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.54m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.30	29.24			
				0.50	29.04		Orange brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
							Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=17 (2,3/3,4,5,5)				
		2.00-2.45 2.00	D SPT	N=14 (2,2/3,3,4,4)	2.00	27.54	Firm reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	
		3.00	SPT	N=12 (3,2/2,3,3,4)				
		4.00	SPT	N=8 (2,1/1,2,2,3)				
					4.45	25.09		
							End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS31

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353335E, 425885N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.53m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
		0.30-0.50	ES		0.25	29.28			
		0.80-0.90	D		0.50	29.03	Orange brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.		
		1.20-1.65 1.20	D SPT	N=17 (2,3/3,4,5,5)			Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY with wood / organic matter fragments throughout. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	1.0	
		2.00	SPT	N=17 (3,3/3,4,4,6)	2.00	27.53	Stiff brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	2.0	
	3.00	SPT	N=14 (2,2/3,3,4,4)					3.0	
	4.00	SPT	N=17 (3,3/4,4,4,5)					4.0	
				4.45	25.08		End of Borehole at 4.45m		
								5.0	
								6.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS32

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353345E, 425920N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.53m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.23		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.70-0.80	D		0.50	29.03		Orange brown gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.
		1.20	SPT	N=12 (1,2/2,3,3,4)	1.40	28.13		Soft brown mottled orange and grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone. <i>Brown fine to medium sand band between 0.80m and 0.90m bgl.</i>
		1.60-1.70	D		2.00	27.53		Medium dense brown clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		2.00	SPT	N=12 (2,3/3,3,3,3)				Stiff reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.
		3.00	SPT	N=19 (3,3/4,5,5,5)				<i>Brown sandy gravel band between 3.00m and 3.10m bgl.</i>
		4.00	SPT	N=14 (4,3/4,3,3,4)	4.45	25.08	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage at 1.80m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS33

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353275E, 425920N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.68m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	29.48		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL). Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, sandstone and mudstone.
		0.20-1.00	ES					
		0.60-0.80	D		1.50	28.18		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00-2.45	D					
				2.40	27.28		Firm brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	
				4.45	25.23		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.50m plain pipe and 2.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS34

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353229E, 425967N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.47m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.30	29.17		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
					0.52	28.95		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
					0.54	28.93		Grey slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
								Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
			1.20-1.65 1.20	D SPT	N=13 (3,2/3,2,4,4)	1.90	27.57		
		2.00-2.45 2.00	D SPT	N=12 (2,2/3,3,3,3)					
		3.00-3.45 3.00	D SPT	N=11 (2,2/2,3,3,3)					
		4.00	SPT	N=10 (2,3/2,2,3,3)					
					4.45	25.02		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS35

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353168E, 425967N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.12m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	28.82		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.79-0.82	ES		0.79 0.82	28.33 28.30		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=6 (1,1/1,2,2,1)				Firm dark brown / black slightly sandy clayey spongy fibrous PEAT. Sand is fine to coarse.
		2.00-2.45 2.00	D SPT	N=13 (1,1/2,3,4,4)				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		3.00-3.45 3.00	D SPT	N=31 (7,7/6,10,9,6)				
		4.00	SPT	N=13 (3,3/3,3,3,4)				
					4.45	24.67		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.30m plain pipe and 3.70m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS36

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353134E, 425991N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.78m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.48		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.80-0.90	ES		1.00	28.78		Stiff greyish brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.
		1.20-1.65 1.20	D SPT	N=13 (1,2/3,3,3,4)	1.80	27.98		Firm to stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.
		2.00	SPT	N=14 (2,3/3,3,4,4)				Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
		2.50-2.60	D					
		3.00	SPT	N=14 (2,2/3,3,4,4)				
	4.00	SPT	N=14 (2,3/3,3,4,4)					
				4.45	25.33			End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 2.00m bgl.
4. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS37

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353095E, 425995N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.50m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.40-0.50	D		0.30 29.20		Firm grey slightly sandy silty CLAY with fine rootlets. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=10 (1,1/2,2,3,3)	0.60 28.90		Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
							<i>Gravelly sand band encountered between 1.30m and 1.40m bgl.</i>	
		2.00	SPT	N=11 (1,2/2,3,3,3)	1.70 27.80		Stiff brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, quartz, quartzite and mudstone.	
		3.00	SPT	N=14 (2,2/3,3,4,4)				
		4.00	SPT	N=16 (2,2/3,4,4,5)				
					4.45 25.05		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 2.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS38

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353133E, 426063N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.49m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	29.29		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.50-0.70	ES					Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65	D					
		1.20	SPT	N=12 (2,2/2,3,3,4)	1.60	27.89		Stiff reddish brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.
		2.00	SPT	N=14 (2,3/3,3,4,4)				
		3.00-3.45	D					
	3.00	SPT	N=16 (2,3/3,4,4,5)					
	4.00	SPT	N=16 (2,3/4,4,4,4)					
	5.00	SPT	N=16 (2,3/3,4,4,5)					
				5.45	24.04		End of Borehole at 5.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 5.00m bgl; 3.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with arisings between 5.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS39

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353159E, 426037N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.48m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	29.28		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.90-1.00	D					Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
		1.20	SPT	N=11 (2,2/2,3,3,3)				
		1.50-1.70	D					
		2.00	SPT	N=13 (2,3/3,3,4)	2.00	27.48		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
		2.60			2.60	26.88		Firm to stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
		3.00	SPT	N=14 (2,3/3,3,4,4)				
		4.00	SPT	N=16 (2,3/3,4,4,5)				
		4.45			4.45	25.03	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS40

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353204E, 426061N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.48m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged
Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.10	ES		0.10	29.38	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
		0.38-1.00	ES		0.38	29.10	Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.		
	▼	1.20-1.65 1.20	D SPT	N=2 (1,0/0,0,1,1)	1.00	28.48	Firm dark brown / black slightly sandy clayey spongy fibrous PEAT. Sand is fine to coarse.	1.0	
		1.91-2.72 2.00	ES SPT	N=2 (1,0/0,0,1,1)	1.91	27.57	Soft dark brown / black slightly sandy clayey spongy fibrous PEAT. Sand is fine to coarse.	2.0	
		3.00	SPT	N=4 (1,1/1,1,1,1)	2.72	26.76	Soft to firm brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.	3.0	
		4.00-4.45 4.00	D SPT	N=7 (1,1/2,1,2,2)	4.45	25.03		4.0	
End of Borehole at 4.45m								5.0	
								6.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 1.00m bgl.
3. No recovery in SPT at 2.00m and 3.00m bgl.
4. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and the base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS41

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353229E, 426037N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.47m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.17		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Stiff brown mottled grey slightly gravelly slightl sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.</p> <p>Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p>Light brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of quartz and mudstone.</p> <p>Stiff brown mottled grey slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.</p>
		1.20-1.65	D		0.40	29.07		
		1.20	SPT	N=9 (1,2/2,2,2,3)	0.59	28.88		
		2.00	SPT	N=9 (2,3/2,2,3,2)	0.90	28.57		
		3.00-3.45	D					
		3.00	SPT	N=10 (2,2/2,2,3,3)				
		4.00	SPT	N=7 (1,1/1,2,2,2)				
					4.45	25.02		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 3.50m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS42

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353204E, 425991N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.46m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
		0.25-0.45	ES		0.25 29.22 0.45 29.02		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.		
		1.20-1.65 1.20	D SPT	N=8 (2,1/2,2,2,2)	1.30 28.16 1.80 27.66		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0	
	▼	2.00-2.45 2.00	D SPT	N=11 (4,4/3,3,2,3)	2.10 27.36 2.25 27.22		Firm to stiff light brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	2.0	
		3.00-3.45 3.00	D SPT	N=24 (5,8/6,6,6,6)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.	3.0	
		4.00	SPT	N=17 (3,3/4,4,5,4)	4.45 25.02		Medium dense light brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of quartz and mudstone.	4.0	
End of Borehole at 4.45m									

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 2.00m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS43

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353300E, 425967N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.46m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.16		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.40-0.60	ES					0.60
		1.20-1.65	D	N=11 (1,2/2,2,3,4)	1.80	27.66		Stiff brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, quartz, sandstone and mudstone
		1.20	SPT					
		2.00-2.45	D	N=11 (2,2/2,3,3,3)	3.00			
2.00	SPT							
4.00	SPT	N=13 (2,2/2,3,4,4)	4.45	25.01				
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS44

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353345E, 425991N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.45m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.30	29.15		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.40-0.50	D		0.50	28.95		Stiff dark grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=14 (1,2/3,3,4,4)	1.70	27.75		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY with organic matter. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone, quartz, granite, sandstone and mudstone.	1.0
		2.00-2.10 2.00	D SPT	N=14 (2,3/3,3,4,4)				Stiff brown slightly sandy CLAY. Sand is fine to coarse.	2.0
		3.00	SPT	N=16 (2,3/3,4,4,5)					3.0
		4.00	SPT	N=15 (2,2/3,4,4,4)					4.0
					4.45	25.00		End of Borehole at 4.45m	5.0
									6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 2.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS45

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 353300E, 426037N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.45m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

JM

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.33	29.12	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=12 (2,2/3,3,3,3)	1.05	28.40	Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=14 (2,2/3,3,4,4)			Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	
		3.00-3.45 3.00	D SPT	N=13 (2,2/3,3,3,4)				
		4.00	SPT	N=10 (2,2/2,2,3,3)				
					4.45	25.00	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS46

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353275E, 426061N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.44m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.14		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.80	D					Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20	SPT	N=13 (1,2/3,3,4,3)	1.05	28.39		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.
		1.50	D					
		2.00	SPT	N=12 (2,2/3,2,3,4)				
		2.50	D					
		3.00	SPT	N=6 (2,1/1,1,2,2)				
	4.00	SPT	N=7 (2,2/1,1,2,3)					
				4.45	24.99			End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS47

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353370E, 426037N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.43m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.35	29.08			
				0.58	28.85		Firm greyish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
				0.92	28.51		Light brown clayey SAND. Sand is fine to coarse.	
		1.20-1.65 1.20	D SPT	N=7 (2,2/2,1,2,2)	1.32	28.11	Firm brown sandy CLAY. Sand is fine to coarse.	
		2.00-2.45 2.00	D SPT	N=12 (2,2/2,3,3,4)			Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.	
		3.00-3.45 3.00	D SPT	N=11 (3,2/3,2,3,3)				
		4.00	SPT	N=11 (2,2/2,2,3,4)				
				4.45	24.98		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS48

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353416E, 426203N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.43m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.32	29.11		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.60	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone and mudstone.
		1.20	D SPT	N=13 (2,2/3,3,3,4)	1.16	28.27		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00	SPT	N=13 (2,3/3,3,4,3)				
		2.50	D					
		3.00	SPT	N=10 (2,2/3,2,2,3)				
	4.00	SPT	N=10 (2,2/2,2,3,3)					
				4.45	24.98		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m and 4.45m bgl.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS49

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353451E, 426214N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.42m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.28	29.14		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.00	D					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone and mudstone.
		1.20	SPT	N=10 (1,2/3,2,3,2)	1.32	28.10		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00	D SPT	N=16 (2,3/4,4,4,4)				
		3.00	D SPT	N=6 (1,1/1,2,1,2)				
	4.00	SPT	N=9 (2,2/2,2,2,3)					
				4.45	24.97		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 3.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS50

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353476E, 426238N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.42m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.12		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
								Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone and mudstone.
		1.20	D SPT	N=18 (2,4/5,4,5,4)	1.15	28.26		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00	D SPT	N=19 (2,3/4,4,5,6)				
		3.00	D SPT	N=11 (2,2/2,2,3,4)				
	4.00	SPT	N=11 (2,2/2,2,3,4)					
				4.45	24.96		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m and 4.45m bgl.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS51

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353451E, 426284N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.41m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

JM

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	29.01	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.60	D				Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone and mudstone.	
		1.20	D SPT	N=11 (2,2/2,2,3,4)	1.26	28.15	Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00	D SPT	N=15 (2,2/4,2,4,5)				
		3.00	SPT	N=11 (2,2/2,2,3,4)				
		4.00	SPT	N=12 (2,2/2,2,4,4)				
					4.45	24.96	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS52

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353440E, 426320N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.40m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.50	D		0.40	29.00		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
		1.20	SPT	N=13 (2,2/3,3,3,4)	1.02	28.38		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.50	D					
		2.00	SPT	N=16 (3,4/3,4,4,5)				
		2.50	D					
		3.00	SPT	N=10 (3,2/3,2,3,2)				
	4.00	SPT	N=13 (2,2/3,3,3,4)					
				4.45	24.95		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m and 4.45m bgl.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS53

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353345E, 426274N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.35m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone (TOPSOIL).	
		0.40-0.80	ES		0.40		28.95	Firm to stiff dark brown to black slightly sandy organic silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.
		0.80			0.80		28.55	Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.
		1.20-1.75 1.20	D SPT	N=14 (2,2/3,3,4,4)	1.20		28.15	Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=12 (2,3/3,3,3,3)				
		3.00-3.45 3.00	D SPT	N=13 (3,2/3,3,4,3)				
		4.00	SPT	N=12 (2,3/3,3,3,3)				
					4.45	24.90	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe, 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS54

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353259E, 426306N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.32m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40 0.50	26.92 26.82		Grass over dark brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
		1.00	D					Brownish grey slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine, angular to subangular of mudstone. Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of mudstone.
		1.20	SPT	N=9 (1,2/2,2,2,3)				
		2.00	D SPT	N=16 (2,2/3,4,4,5)	2.07	25.25		Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of mudstone.
		3.00	D SPT	N=17 (2,3/3,4,5,5)				
	4.00	D SPT	N=17 (2,3/3,4,5,5)	4.45	22.87		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 3.00m bgl; 1.00m plain pipe, 2.00m slotted pipe.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS55

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353308E, 426285N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.71m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.10 0.10-0.45	ES ES		0.10 0.45	28.61 28.26		MADE GROUND: Brownish grey slightly clayey sand and gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, limestone and tarmac.	
					0.80	27.91		MADE GROUND: Dark brown to black slightly clayey sand and gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, mudstone and slag.	
					1.40	27.31		Stiff brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
			1.20-1.75 1.20	D SPT	N=10 (2,2/2,3,3,2)				Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of granite, quartz and mudstone.
			2.00-2.45 2.00	D SPT	N=15 (2,3/3,4,4,4)				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		3.00	SPT	N=9 (2,1/2,2,2,3)					
		4.00-4.45 4.00	D SPT	N=9 (1,2/2,2,2,3)					
					4.45	24.26		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 3.00m bgl.
4. Hole installed to 4.00m bgl; 2.50m plain pipe, 1.50m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS56

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 353229E, 426249N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.23m OD


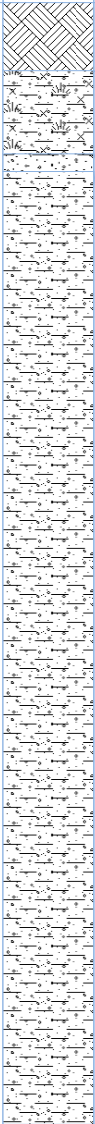
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged
Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.27	26.96		Grass over dark brown slightly gravelly slightly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
					0.60	26.63		Firm to stiff brownish grey slightly gravelly slightly sandy silty CLAY interbedded with a black spongy fibrous sandy PEAT. Sand is fine to coarse. Gravel is angular to subangular of mudstone and sandstone.
					0.67	26.56		Light brown to brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.20	SPT	N=11 (2,2/2,3,3,3)				Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone.
		2.00	SPT	N=11 (2,2/2,3,3,3)				
	3.00	SPT	N=15 (2,2/3,4,4,4)					
	4.00	SPT	N=19 (3,3/4,5,5,5)					
					4.45	22.78		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 3.00m bgl; 1.00m plain pipe, 2.00m slotted pipe.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS57

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353203E, 426203N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.53m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.32	ES		0.32	27.21		Grass over dark brown slightly gravelly slightly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
		0.75-1.10	ES		0.75	26.78		Stiff to very stiff brownish grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.00	D		1.10	26.43		Firm to stiff brownish grey slightly gravelly slightly sandy silty CLAY interbedded with a black spongy fibrous slightly sandy PEAT. Sand is fine to coarse. Gravel is angular to subangular of mudstone and sandstone.
		1.20	SPT	N=8 (1,1/2,2,2,2)				Very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone.
		2.00	D SPT	N=13 (2,2/2,3,4,4)				
		3.00	D SPT	N=14 (2,2/3,3,4,4)				
		4.00	SPT	N=19 (3,3/4,5,5,5)				
					4.45	23.08		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS58

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353193E, 426270N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.95m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

NS

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES		0.25	26.70		MADE GROUND TOPSOIL: Grass over brown silty sand with fine rootlets and plastic. Sand is fine to medium.	
					0.40	26.55		Light brown fine to medium silty SAND.	
		0.50	D						Soft light brown very sandy CLAY. Sand is fine to medium.
					0.80	26.15			Light brown fine to medium SAND.
					0.85	26.10			Black spongy fibrous silty PEAT.
		1.00	D		0.89	26.06			Soft greyish brown sandy CLAY. Sand is fine to medium.
					1.10	25.85			Light brown fine to medium SAND.
		1.20	SPT	N=5 (1,1/1,1,1,2)	1.15	25.80			Black spongy fibrous silty PEAT.
					1.20	25.75			Soft brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, angular of mudstone. <i>Clay becoming firm from 1.50m bgl.</i>
					2.00				<i>Clay becoming stiff from 2.00m bgl.</i>
			3.00						
			4.00						
			4.45				End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS59

Sheet 1 of 1

Hole Type

WS

Scale

1:30

Logged

PG

Checked

JMC

PROJECT NO: C4259

CO-ORDS: 353159E, 426249N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.63m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES		0.35	26.28		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
					0.66	25.97		Stiff to very stiff greyish brown mottled orange slightly gravelly slightly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.
		1.20	SPT	N=8 (1,1/2,2,2,2)	1.00	25.63		Stiff to very stiff brown slightly gravelly slightly sandy CLAY interbedded with grey sand. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=14 (3,3/3,3,3,5)				Stiff to very stiff brown mottled grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.
		3.00-3.45 3.00	D SPT	N=15 (3,3/3,4,4,4)				
	4.00-4.45 4.00	D SPT	N=8 (2,2/2,2,2,2)	4.45	22.18		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS60

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353133E, 426203N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.88m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
Well		0.00-0.36	ES		0.36	26.52	Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
		1.20-1.65	D	N=10 (2,3/2,3,2,3)			Stiff greyish brown mottled orange slightly gravelly slightly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.	
		1.20	SPT					
		2.00-2.45	D	N=12 (2,2/3,3,3,3)			Stiff orangish brown slightly sandy silty CLAY. Sand is fine to coarse.	
		2.00	SPT					
	3.00	SPT	N=8 (2,1/2,2,2,2)	2.43 2.54	24.45 24.34	Stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.		
	4.00-4.45	D	N=12 (2,2/3,3,3,3)			End of Borehole at 4.45m		
	4.00	SPT			4.45		22.43	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 3.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS61

Sheet 1 of 1

Hole Type

WS

Scale

1:30

Logged

PG

Checked

JMC

PROJECT NO: C4259

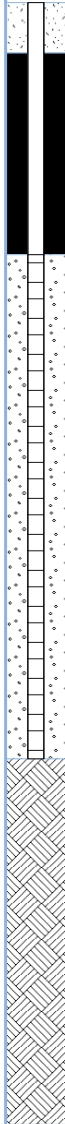
CO-ORDS: 353173E, 426179N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.28m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	26.98	Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
		1.20-1.65	D SPT	N=11 (2,2/3,3,3,2)	1.12	26.16	Stiff brown mottled orange and grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone, mudstone and quartz.	
		2.00-2.45	D SPT	N=11 (2,2/2,3,3,3)				
		3.00-3.45	D SPT	N=10 (2,1/2,3,3,2)				
		4.00	SPT	N=11 (1,2/2,3,3,3)	4.45	22.83	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 3.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m to base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS62

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353204E, 426132N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.12m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.30	27.82		MADE GROUND TOPSOIL: Dark brown slightly gravelly very clayey sand with rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of quartzite, quartz, sandstone and limestone. Occasional fragments of plastic bags.	
		0.50-0.80	ES		0.80	27.32		Firm brownish grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartzite, granite, quartz, limestone and sandstone. <i>Sand band between 0.40m and 0.45m bgl.</i>	
		1.20-1.65 1.20	D SPT	N=9 (1,2/2,2,2,3)	1.90	26.22		Firm reddish brown mottled grey and orangish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.	1.0
		2.00-2.45 2.00	D SPT	N=14 (3,3/3,3,4,4)	3.00			Firm reddish brown mottled slightly gravelly slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sandstone and mudstone.	2.0
		3.00	SPT	N=10 (2,2/2,2,3,3)	4.00			<i>Clay becoming soft below 2.80m bgl.</i>	3.0
	4.00	SPT	N=17 (3,4/4,4,4,5)	4.45	23.67		End of Borehole at 4.45m	4.0	
								5.0	
								6.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe, 3.50m slotted pipe.
4. Hole backfilled with arisings from 4.00m to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS63

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353275E, 426132N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.72m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	ES		0.50	28.22		Dark brown slightly gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is subangular to rounded fine to coarse mudstone, quartzite and sandstone. (TOPSOIL)
		1.20-1.65 1.20	D SPT	N=10 (2,2/2,3,3,2)				Firm reddish brown mottled grey and brown slightly sandy gravelly CLAY with rootlets and rootlet traces. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.
		2.00	SPT	N=9 (2,2/2,2,2,3)	Soft to firm reddish grey slightly mottled grey slightly sandy silty CLAY with rare gravel and rare rootlet traces. Sand is fine. Gravel is fine, subangular to subrounded of sandstone and mudstone.			
		3.00	SPT	N=7 (1,1/1,2,2,2)	Clay becoming soft below 1.20m bgl.			
		4.00-4.45 4.00	D SPT	N=7 (2,2/1,1,2,3)	4.45	24.27		Clay becoming soft below 3.00m bgl.
		End of Borehole at 4.45m						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS64

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353335E, 426097N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.52m OD

Scale

1:30



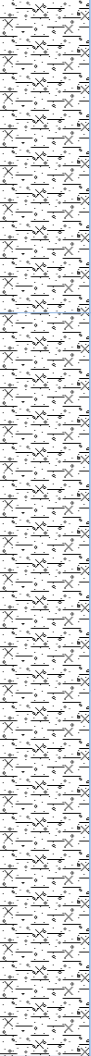
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	29.32		MADE GROUND TOPSOIL: Dark brown slightly gravelly sandy clay with rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, sandstone, limestone and brick. Low cobble content of brick and quartzite.
		0.20-1.00	ES					Firm dark reddish brown mottled grey and brown slightly gravelly slightly sandy silty CLAY with rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone and sandstone.
		1.20	SPT	N=16 (2,3/3,4,4,5)	1.50	28.02		Firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel and traces of rootlets and organic matter. Sand is fine. Gravel is fine, subangular to subrounded of sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=11 (2,2/2,3,3,3)				Clay becoming soft with absence of mottling and rootlet traces below 3.00m bgl.
		3.00	SPT	N=9 (2,2/2,2,2,3)				
4.00-4.45 4.00	D SPT	N=13 (2,3/3,3,3,4)	4.45	25.07		End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS65

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353335E, 426167N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.56m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	29.36		Grass over dark brown slightly gravelly slightly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=13 (3,3/3,3,3,4)	1.50	28.06		Firm reddish brown mottled grey and brown slightly sandy gravelly CLAY with rootlets and rootlet traces. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.
		2.00	SPT	N=14 (3,3/3,3,4)				<i>Mottling rare below 2.00m bgl.</i>
		3.00-3.45 3.00	D SPT	N=9 (3,2/2,2,3)				<i>Clay becoming soft below 2.50m bgl.</i>
		4.00	SPT	N=8 (2,2/2,2,2)	4.45	25.12		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.50m plain pipe, 2.50m slotted pipe.
4. Hole backfilled with arisings from 4.00m to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS66

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353134E, 426132N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.24m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	26.94	Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
		1.20-1.60 1.20	D SPT	N \geq 50 (3,3/14 for 225mm)	1.70	25.54	Stiff brown mottled orangish brown slightly sandy gravelly CLAY with rootlets and root traces. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.	
		2.00	SPT	N \geq 50 (3,3/13 for 225mm)			Soft to firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, quartzite, sandstone and coal.	
		3.00-3.45 3.00	D SPT	N \geq 50 (1,1/6 for 225mm)			<i>Clay becoming soft below 3.00m bgl.</i>	
		4.00	SPT	N \geq 50 (1,1/10 for 225mm)	4.45	22.79	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS67

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353088E, 426179N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.22m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	26.92		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
		1.20-1.65 1.20	D SPT	N=11 (3,3/4,2,2,3)	1.50	25.72		Stiff reddish brown mottled orange brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of sandstone, limestone, quartz and quartzite.
		2.00	SPT	N=11 (3,2/3,3,3,2)				Firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sandstone and mudstone.
		3.00	SPT	N=7 (1,1/1,2,2,2)				<i>Clay becoming soft below 2.30m bgl.</i>
		4.00-4.45 4.00	D SPT	N=11 (2,2/3,3,3,2)	4.45	22.77		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.50m plain pipe, 2.50m slotted pipe.
4. Hole backfilled with arisings from 4.00m to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS68

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353088E, 426249N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.11m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES		0.25	28.86		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	1.0
					0.60	28.51		Firm brown grey slightly gravelly sandy CLAY with occasional fine rootlets. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sandstone, quartzite and limestone. <i>Thin band of brown fine SAND between 0.55m and 0.60m bgl.</i>	
		0.90-1.00	D					Soft to firm reddish brown mottled grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, quartzite, sandstone and coal.	
		1.20	SPT	N=8 (1,1/2,2,2,2)	1.40	27.71			
		2.00	SPT	N=14 (3,3/3,3,4,4)					
		3.00	SPT	N=17 (3,4/4,4,4,5)					
		4.00-4.45 4.00	D SPT	N=15 (3,3/3,4,4,4)	4.45	24.66		2.0	
							End of Borehole at 4.45m	3.0	
								4.0	
								5.0	
								6.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in sampler between 2.00m and 3.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS69

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353063E, 426273N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.18m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)		
		0.30-0.80	ES		0.30	28.88	Firm dark brown / grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone. <i>Thin band of brown fine SAND between 0.40m and 0.45m bgl.</i>		
		1.20	SPT	N=8 (1,1/2,2,2,2)	1.50	27.68	Soft to firm brown mottled grey slightly sandy gravelly CLAY with rootlet traces. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.	1.0	
		2.00-2.45 2.00	D SPT	N=14 (3,3/3,3,4,4)	3.00	26.18	Soft reddish grey / brown mottled grey slightly sandy silty CLAY with rare gravel, occasional rootlets and organic matter. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sandstone and mudstone.	2.0	
		3.00	SPT	N=17 (3,4/4,4,4,5)	4.00	24.73	Soft to firm reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone, quartzite, granite and coal.	3.0	
		4.00	SPT	N=22 (3,4/4,5,6,7)	4.45	24.73	End of Borehole at 4.45m	4.0	
								5.0	
								6.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 1.20m bgl and sampler between 2.00m and 3.00m bgl.
4. Hole installed to 4.00m bgl; 0.50m plain pipe, 3.50m slotted pipe.
5. Hole backfilled with arisings from 4.00m to base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS70

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353168E, 426318N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.53m OD

Scale

1:30


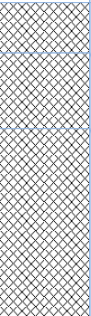
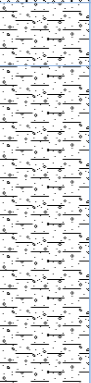
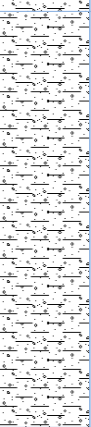
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged
Checked

NS

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20-0.50	ES		0.20	29.33		MADE GROUND: White sandy gravel. Sand is fine to coarse. Gravel is fine to medium, subangular, of limestone (Imported MOT).
		0.50-1.25	ES		0.50	29.03		MADE GROUND: Greyish brown gravelly sand. Sand is fine to medium. Gravel is fine to medium subangular to subrounded of limestone, ceramic, coal and rare clinker.
		1.20-1.65 1.20	D SPT	N=12 (1,2/3,3,3,3)	1.25	28.28		MADE GROUND: Black spongy fibrous silty PEAT with rare ceramic fragments.
		2.00-2.45 2.00	D SPT	N=12 (2,3/2,3,3,4)	1.50	28.03		Stiff orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine subangular of coal and mudstone.
		3.00	SPT	N=16 (2,2/4,4,4,4)	2.80	26.73		Firm to stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, subangular of sandstone and mudstone.
		4.00	SPT	N=16 (3,3/4,4,4,4)	4.45	25.08		Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is fine subangular of mudstone.
						End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 1.50m bgl; 0.50m plain pipe, 1.00m slotted pipe.
4. Hole backfilled with arisings from 1.50m bgl to base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS71

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353188E, 426347N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.14m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

NS

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	26.74		MADE GROUND TOPSOIL: Grass over brown gravelly clayey sand with frequent fine rootlets. Sand is fine to medium. Gravel is fine, subangular of mudstone, sandstone, ceramic, pottery, clinker and coal.
		0.80	D					Stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, subangular of sandstone and mudstone.
		1.20	SPT	N=10 (1,2/2,2,3,3)				
		2.00-2.45 2.00	D SPT	N=16 (3,3/3,4,4,5)				
		3.00	SPT	N=15 (3,2/3,4,4,4)				
	4.00	SPT	N=18 (3,4/3,5,5,5)		4.45	22.70		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS72

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353226E, 426397N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.20m OD

Scale

1:30








CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged
Checked

NS

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	27.80		MADE GROUND TOPSOIL: Grass over gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, subangular of mudstone, tile, ceramic and coal.
		0.70-0.90	ES		0.70	27.50		Firm orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine subangular of coal and sandstone.
		0.90			0.90	27.30		Orangish brown slightly gravelly clayey SAND. Sand is fine to medium. Gravel is fine to medium subangular of sandstone and mudstone.
		1.20-1.65	D		1.05	27.15		Firm orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine subangular of coal and sandstone.
		1.20	SPT	N=5 (1,1/1,1,2,1)				Stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, subangular of sandstone and mudstone.
		2.00	SPT	N=15 (3,3/3,4,4,4)	2.40	25.80		Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is fine subangular of mudstone.
	3.00-3.45	D						
	3.00	SPT	N=17 (3,3/4,5,4,4)					
	4.00	SPT	N=18 (3,3/4,4,5,5)	4.45	23.75			
							End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS73

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353208E, 426430N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.11m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

NS

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				MADE GROUND TOPSOIL: Grass over brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to medium. Gravel is fine to coarse, subangular of sandstone, siltstone, mudstone, coal, ceramic and wood fragments.	
		0.50	D		0.40	26.71	Stiff brown slightly gravelly sandy CLAY with frequent fine rootlets. Sand is fine to medium. Gravel is fine, subangular of sandstone and mudstone. <i>Clay noted to be dry, possibly desiccated between 0.40m and 0.70m bgl.</i>	
					0.70	26.41		
			0.90			0.90	26.21	Light brown gravelly SAND. Sand is fine to medium. Gravel is fine to medium subrounded of sandstone.
			1.20	SPT	N=10 (1,2/2,2,3,3)			Firm to stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, subangular of sandstone and mudstone.
		2.00	SPT	N=18 (2,3/4,4,5,5)	2.00	25.11	Stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is fine, subangular of mudstone.	
		3.00	SPT	N=20 (3,3/4,5,5,6)				
		4.00	SPT	N=15 (2,3/3,4,4,4)				
					4.45	22.66	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS74

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353173E, 426435N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.32m OD

Scale

1:30

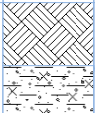


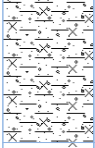
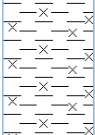
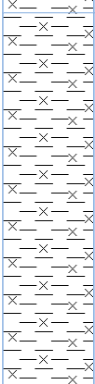
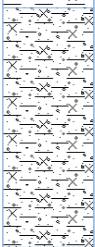

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES		0.25	28.07		Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
					0.50	27.82		Stiff dark grey mottled orange brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sandstone and mudstone.	
					0.70	27.62		Light grey silty SAND. Sand is fine.	
								Soft to firm brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	1.0
		1.20	SPT	N=10 (2,2/2,2,3,3)	1.40	26.92		Soft to firm dark grey mottled brown silty CLAY with fine rootlets and rare gravel. Gravel is fine, angular to subrounded of sandstone and mudstone.	
		1.50-2.00	D					Firm reddish brown mottled dark grey silty CLAY with rare gravel. Gravel is fine, subangular to subrounded of sandstone and mudstone.	2.0
		2.00	SPT	N=12 (2,2/3,3,3,3)	2.00	26.32		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine, subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=12 (2,2/3,3,3,3)	3.50	24.82		End of Borehole at 4.45m	3.0
		4.00	SPT	N=17 (2,3/3,4,5,5)	4.45	23.87			4.0
									5.0
									6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS75

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353078E, 426321N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.95m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.60	ES				MADE GROUND TOPSOIL: Grass over light brown slightly gravelly sand. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of concrete, shells and mudstone.	
		0.70-1.30	ES		0.60 0.65	28.35 28.30	MADE GROUND: Red gravel. Gravel is fine to coarse, angular to subangular of brick. MADE GROUND: Black slightly gravelly clayey sand. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of brick and sandstone.	
	▼	1.20-1.65 1.20	D SPT	N=7 (1,0/1,1,2,3)	1.30	27.65	Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of quartzite and sandstone.	
		1.50-2.00	ES					
		2.00-2.45 2.00	D SPT	N=15 (2,3/3,4,4,4)				
		3.00-3.45 3.00	D SPT	N=16 (2,3/4,4,4,4)				
		4.00-4.45 4.00	D SPT	N=10 (2,2/2,2,3,3)	4.45	24.50	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Slight groundwater seepage at 1.30m bgl.
3. No recovery in sampler below 2.00m bgl. Recovery within SPT samples only.
4. Hole installed to 4.00m bgl; 1.50m plain pipe, 3.00m slotted pipe.
5. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS76

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353060E, 426352N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.01m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.20	28.81		Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.20-0.90	ES					Firm dark grey mottled orange brown slightly sandy silty CLAY. Sand is fine.	
		1.20	SPT HSV		N=12 (2,2/2,3,3,4) 77kPa	0.90	28.11		Dark brown spongy fibrous silty PEAT.
						1.10	27.91		Soft grey slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
		1.20		1.20	27.81		End of Borehole at 1.20m		



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Window sample hole could not be undertaken due to access restrictions.
3. Hole backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS77

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353088E, 426390N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.36m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	28.96		Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65	D					Firm greyish brown sandy CLAY with frequent fine rootlets. Sand is fine.
		1.50-2.00	ES		1.50	27.86		Dark brown plastic fibrous PEAT with wood fragments. <i>Peat is dry and dense between 1.50m and 2.00m bgl.</i>
		2.00-2.45	D		2.00	27.36		Firm dark greyish brown slightly gravelly slightly sandy CLAY with wood fragments. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of sandstone and mudstone.
					4.45	24.91		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS78

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353133E, 426414N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.70m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.40		Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.70	29.00		Soft grey mottled brown slightly sandy silty CLAY with occasional fine rootlets. Sand is fine.
					0.90	28.80		Dark brown spongy fibrous PEAT. <i>Peat is dry and dense between 0.70m and 0.90m bgl.</i>
					1.30	28.40		Grey slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
					2.00-2.45	D		
			4.00-4.45	D			Stiff dark grey / reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of sandstone and mudstone.	
					4.45	25.26		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS79

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353159E, 426390N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.05m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.75	Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.70-1.00	D		0.70	29.35	Stiff dark grey mottled orange brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sandstone and mudstone.	
		1.20-1.65	D		1.00	29.05	Soft light grey mottled orange brown slightly sandy silty CLAY. Sand is fine.	
					1.50	28.55	Soft to firm grey and brown slightly gravelly slightly sandy silty CLAY with occasional fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	
					2.50	27.55	Soft to firm dark grey silty CLAY with rare gravel. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	
		3.00-3.45	D				Firm to stiff grey to reddish brown gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	
					4.45	25.60	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS80

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353134E, 426345N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.40m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	30.00	Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		1.20-1.65	D				Firm to stiff greyish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of sandstone and mudstone.	
		3.00-3.45	D					
					4.45	25.95	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in sampler below 2.00m bgl and no recovery in SPT at 2.00m bgl. Recovery below 2.45m bgl from SPTs only.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS81

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353017E, 426320N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.18m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.20	26.98		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
					0.40	26.78			Firm dark grey mottled brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of sandstone and mudstone.
		1.20	SPT	N=19 (5,5/4,5,5,5)				Firm to stiff brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of quartzite, coal, sandstone and mudstone.	1.0
		1.50-1.70	D		1.50	25.68		Firm to stiff reddish brown mottled dark grey silty CLAY with rare gravel and fine rootlets. Gravel is fine subangular to subrounded of sandstone and mudstone.	
		2.00	SPT	N=14 (2,3/3,3,4,4)					2.0
		3.00	SPT	N=13 (2,3/3,3,4)	3.00	24.18		Stiff reddish brown slightly sandy gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of granite, limestone, sandstone and quartzite.	3.0
		4.00-4.45 4.00	D SPT	N=20 (2,3/4,5,5,6)					4.0
					4.45	22.73		End of Borehole at 4.45m	5.0
									6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 1.20m, 2.00m and 3.00m bgl.
4. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
5. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS82

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 352992E, 426344N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.20m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES					MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of ceramic, sandstone and mudstone.	
		0.20-0.50	ES		0.20	27.00		Light brown gravelly SAND. Sand is fine to medium. Gravel is fine to medium subrounded of sandstone.	
					0.50	26.70		Firm to stiff brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, quartz, quartzite and sandstone.	
		1.20-1.65	D						Stiff reddish brown mottled grey silty CLAY with rare gravel and fine rootlets. Gravel is fine, subangular to subrounded of sandstone and mudstone.
		1.20	SPT	N=13 (2,2/3,3,3,4)	1.30	25.90			
		2.00	SPT	N=14 (2,3/3,3,4,4)					Stiff reddish grey slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartzite, sandstone and mudstone.
		2.50-2.70	D		2.30	24.90			
3.00	SPT	N=18 (2,3/3,4,5,6)				Granite cobble encountered at 2.70m bgl.			
4.00	SPT	N=12 (2,2/2,3,3,4)							
				4.45	22.75		End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 2.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS83

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352922E, 426344N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.75m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	27.55		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets and low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone. Cobbles are rounded of quartzite (TOPSOIL).
		1.20-1.65	D		0.60	27.15		Firm brown slightly sandy slightly gravelly silty CLAY with rare fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartzite, sandstone and mudstone.
		1.20	SPT	N=10 (1,1/2,2,3,3)	1.40	26.35		Firm to stiff reddish brown mottled dark grey silty CLAY with rare gravel and fine rootlets. Gravel is fine subangular to subrounded of sandstone and mudstone.
		2.00	SPT	N=19 (2,2/3,5,5,6)				Firm to stiff reddish brown mottled dark grey slightly sandy silty CLAY with rare gravel and fine rootlets. Sand is fine to coarse. Gravel is fine subangular to subrounded of sandstone, coal and mudstone.
		3.00	SPT	N=17 (2,2/3,4,5,5)				
		4.00-4.45	D		4.45	23.30		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS84

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352944E, 426380N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.10m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	26.90		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=12 (2,2/2,3,3,4)	1.20	25.90		Firm dark greyish brown mottled light orange slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded of quartzite, sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=13 (2,2/3,3,3,4)				Firm to stiff reddish grey slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of quartzite, sandstone and mudstone.
		3.00	SPT	N=15 (2,2/3,4,4,4)				
		4.00	SPT	N=15 (2,2/3,4,4,4)				
					4.45	22.65		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe, 3.50m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS85

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352876E, 426390N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.52m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40 0.50	27.12 27.02		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.00	D					Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.20	SPT	N=10 (2,2/2,2,3,3)				Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
		2.00	D SPT	N=14 (2,2/3,3,4,4)	1.53	25.99		Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
		3.00	D SPT	N=21 (3,3/4,5,6,6)				
	4.00	SPT	N=21 (3,3/4,5,6,6)		4.45	23.07		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS86

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352851E, 426344N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.48m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.43	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.43	28.04		Grey gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Stiff to very stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone and quartz.	
				0.60	27.88			
		1.00	D					
		1.20	SPT	N=10 (1,2/2,2,3,3)				
		2.00	D SPT	N=14 (2,2/2,4,4,4)				
		3.00	D SPT	N=14 (2,2/3,3,4,4)				
		4.00	SPT	N=16 (2,3/3,4,4,5)				
				4.45	24.02		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS87

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352815E, 426340N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.10m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.	
		0.30-1.29	ES		0.30	27.80	MADE GROUND: Stiff to very stiff slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of brick and ceramic fragments.	
		1.00	D					
		1.20	SPT	N=3 (2,0/1,0,1,1)	1.29	26.81	Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to rounded of mudstone.	
		2.00 2.00-2.50 2.00	D ES SPT	N=14 (2,3/3,3,4,4)				
		3.00	D SPT	N=9 (2,2/2,2,2,3)				
	4.00	SPT	N=9 (1,2/2,2,2,3)					
				4.45	23.65		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS88

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352778E, 426378N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.91m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.20	27.71		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	1.0
					0.50	27.41		Firm to stiff dark greyish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.	
		1.20	SPT	N=9 (1,2/2,2,2,3)	1.50	26.41		Firm reddish brown mottled brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and quartz.	
		2.00-2.45 2.00	D SPT	N=10 (2,2/2,2,3,3)	3.00	24.91		Firm reddish grey silty CLAY with rare gravel. Gravel is fine, subangular to rounded of limestone, quartzite, sandstone and quartz.	
		3.00-3.45 3.00	D SPT	N=14 (2,2/3,3,4,4)	4.00	23.46		Firm reddish brown gravelly silty CLAY. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and quartz.	
		4.45					End of Borehole at 4.45m	5.0	
								6.0	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS89

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352745E, 426426N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.72m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.20	27.52		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	1.0
					0.50	27.22		Firm dark greyish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=11 (1,2/2,3,3,3)	1.30	26.42		Firm reddish brown mottled brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and quartz.	
		2.00	SPT	N=11 (2,2/2,3,3,3)				Firm reddish grey silty CLAY with rare gravel. Gravel is fine, subangular to rounded of limestone, quartzite, sandstone and quartz.	
		3.00-3.45 3.00	D SPT	N=16 (2,3/3,4,4,5)	3.20	24.52		Firm reddish brown slightly gravelly silty CLAY. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and quartz.	
	4.00	SPT	N=14 (2,2/3,3,4,4)						4.0
					4.45	23.27		End of Borehole at 4.45m	5.0
									6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 2.00m.
4. Hole installed to 4.00m bgl; 1.50m plain pipe, 2.50m slotted pipe.
5. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS90

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352770E, 426450N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.42m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	27.22		MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.
		0.20-0.50	ES					Firm dark grey mottled brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of sandstone and mudstone.
		1.20	SPT	N=9 (1,2/2,2,2,3)	1.50	25.92		Firm reddish grey silty CLAY with rare gravel. Gravel is fine, subangular to rounded of limestone, quartzite, sandstone and quartz.
		2.00-2.45	D SPT	N=14 (2,2/3,3,4,4)	2.80	24.62		Firm reddish brown slightly gravelly silty CLAY. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and quartz.
		2.00	SPT					3.00
4.00	SPT	N=16 (2,2/3,4,4,5)	4.45	22.97		End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS91

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352840E, 426450N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.34m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.20	ES		0.25	27.10	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL). Soft dark greyish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone, quartzite and sandstone.		
		1.20	SPT	N=9 (2,3/2,2,2,3)	1.40	25.94	Loose greyish brown SAND. Sand is fine to coarse. Soft dark greyish brown slightly sandy silty CLAY. Sand is fine to coarse.	1.0	
		1.40-1.50	D		1.50	25.84		2.0	
		2.00-2.45	D		1.90	25.44	Dark grey SAND. Sand is fine to coarse. Soft dark reddish brown mottled grey silty CLAY with rare gravel. Gravel is fine, subangular to subrounded of limestone, quartzite and sandstone.		
		2.00	SPT	N=12 (2,3/3,3,3,3)	2.10	25.24		3.0	
		3.00	SPT	N=15 (2,2/3,3,4,5)	3.50	23.84	Soft to firm reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, quartzite, sandstone and mudstone		
		4.00	SPT	N=22 (3,4/5,5,6,6)	4.45	22.90		4.0	
		End of Borehole at 4.45m							5.0
									6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS92

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352886E, 426417N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.21m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.28	ES		0.28	26.93		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.</p> <p>Stiff to very stiff dark brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone. Cobbles are subangular to rounded of mudstone.</p>
					0.39	26.82		
		1.00	D					
		1.20	SPT	N=10 (2,2/2,2,3,3)				
		2.00	D SPT	N=14 (2,3/3,3,4,4)				
		3.00	D SPT	N=17 (2,3/4,4,4,5)				
		4.00	SPT	N=21 (2,3/4,5,6,6)				
					4.45	22.76		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS93

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352912E, 426450N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.08m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.29	ES		0.24	26.84		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.00	D		1.03	26.04		Stiff to very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.20	SPT	N=13 (2,3/3,3,3,4)				Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
		2.00	D SPT	N=14 (2,3/3,3,4,4)				
		3.00	D SPT	N=17 (2,3/4,4,4,5)				
		4.00	SPT	N=21 (2,3/4,5,6,6)	4.45	22.62		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS94

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352958E, 42642N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.70m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.33	ES		0.30 0.36	26.40 26.34		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.00	D					Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.20	SPT	N=13 (3,3/3,3,3,4)				Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
		2.00	D SPT	N=10 (1,2/2,3,2,3)				
		3.00	D SPT	N=13 (2,3/3,3,3,4)				
		4.00	D SPT	N=17 (2,3/3,4,4,6)				
					4.45	22.24		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS95

Sheet 1 of 1

Hole Type

WS

Scale

1:30

PROJECT NO: C4259

CO-ORDS: 352982E, 426450N

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.81m OD

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.33	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.30	26.51			
				0.33	26.48			
				0.59	26.22		Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
				0.78	26.03		Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.	
		1.00	D					
		1.20	SPT	N=10 (2,2/3,2,3,2)			Firm dark brownish black slightly sandy spongy fibrous PEAT. Sand is fine to coarse.	
							Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.	
		2.00	D SPT	N=10 (1,2/2,2,3,3)				
		3.00	D SPT	N=10 (2,2/2,2,3,3)				
		4.00	SPT	N=16 (3,3/3,4,4,5)				
				4.45	22.36		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS96

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353026E, 426434N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.78m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.30-1.50	ES		0.30	26.48	Stiff to very stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone and quartz.	
		1.00	D			0.63	Firm dark brownish black slightly sandy spongy fibrous PEAT. Sand is fine to coarse.	
		1.20	SPT	N=5 (1,1/1,1,1,2)				
		2.00	D SPT	N=13 (2,2/2,3,4,4)	1.54	25.24	Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.	
		3.00	D SPT	N=15 (2,3/4,3,4,4)				
		4.00	SPT	N=16 (3,3/4,4,4,4)				
				4.45	22.33	End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 1.50m bgl; 0.50m plain pipe, 1.00m slotted pipe.
4. Hole backfilled with arisings from 1.50m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS97

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352876E, 426320N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.74m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.34	ES		0.34	28.40		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.60	28.14		Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.00	D					Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
		1.20	SPT	N=12 (2,2/3,3,3,3)				
		2.00	D SPT	N=8 (1,2/1,2,2,3)				
		3.00	D SPT	N=11 (2,2/2,2,3,4)				
		4.00	SPT	N=10 (2,2/3,2,2,3)				
					4.45	24.28		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
4. Hole backfilled with arisings from 4.00m bgl to base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS98

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352957E, 426287N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.87m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).		
					0.60	27.27			
					0.90	26.97	Firm dark brownish black slightly sandy spongy fibrous PEAT. Sand is fine to coarse.		
		1.00	D				Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.	1.00	
		1.20	SPT	N=12 (2,2/3,3,3,3)					
		2.00	D SPT	N=12 (2,3/3,3,3,3)				2.00	
		3.00	D SPT	N=11 (2,2/2,3,3,3)				3.00	
		4.00	SPT	N=17 (2,3/4,4,4,5)				4.00	
					4.45	23.42			
		End of Borehole at 4.45m							
								5.00	
								6.00	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS99

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352700E, 426379N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.91m OD

Scale

1:30





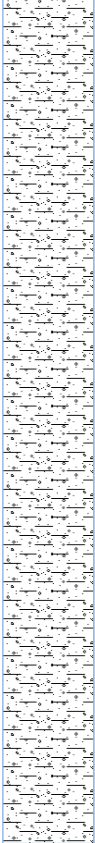
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged
Checked

NS

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.60	ES				Grass over black gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine, subangular of coal and sandstone (TOPSOIL).	
		0.60-0.90	ES		0.60	27.31		Black plastic fibrous silty PEAT.
		0.90				27.01		Light brown fine to medium SAND.
		1.20-1.65 1.20	D SPT	N=15 (2,2/3,4,4,4)	1.10	26.81		Stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is fine, subangular to subrounded of coal and sandstone.
		2.00	D SPT	N=12 (3,2/3,3,3,3)				
		3.00	SPT	N=15 (2,3/3,4,4,4)				
		4.00	SPT	N=15 (2,3/3,4,4,4)				
					4.45	23.46	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Slight groundwater seepage encountered at 1.00m bgl.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS100

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352703E, 426449N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.62m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND






DATES: 08/06/20

Logged

NS

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	27.32		Grass over black gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine, subangular of coal and sandstone (TOPSOIL).
		0.30-0.60	ES					0.80
		0.80-1.00	D		1.20	26.42		
		1.20	SPT	N=3 (1,1/0,1,1,1)				1.60 1.65
		2.00	SPT	N=19 (2,3/4,4,5,6)	3.00-3.45 3.00	D SPT		
		3.00-3.45 3.00	D SPT	N=13 (3,2/3,3,4,3)				4.00
		4.00	SPT	N=15 (2,3/3,4,4,4)	4.45	23.17	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Slight groundwater seepage encountered at 0.80m bgl and 1.60m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS101

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352676E, 426222N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.55m OD

Scale

1:30


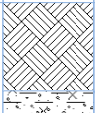
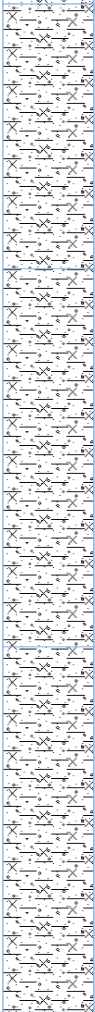
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES		0.35	27.20		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.50-1.00	ES		0.45	27.10		Stiff dark greyish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		1.20	SPT	N=12 (3,3/3,3,3,3)	1.50	26.05		Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=12 (3,2/2,3,3,4)				Stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		3.00	SPT	N=33 (6,6/9,9,8,7)	3.00	24.55		Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	4.00-4.45 4.00	D SPT	N=13 (3,3/3,4,3,3)	4.45	23.10		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 3.00m bgl.
4. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and the base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS102

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352628E, 426164N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.42m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES		0.35	27.07	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
					0.60	26.82	Stiff dark greyish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=13 (2,2/3,3,3,4)	1.70	25.72	Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		2.00	SPT	N=11 (3,2/2,3,3,3)			Stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		3.00	SPT	N=9 (2,2/2,2,3,2)				
		4.00	SPT	N=12 (2,2/3,3,3,3)	3.50	23.92	Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
					4.45	22.97	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 2.00m and 3.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS103

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352666E, 426135N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.30m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES		0.35	26.95		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL). Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		0.40-0.80	ES					
		1.20	SPT	N=15 (3,3/3,4,4,4)	1.70	25.60		Stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		2.00	SPT	N=11 (3,3/2,2,3,4)				
		3.00-3.45 3.00	D SPT	N=15 (3,3/3,4,4,4)	2.50	24.80		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		4.00	SPT	N≥50 (4,4/50 for 285mm)				
				4.44	22.86		End of Borehole at 4.43m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 2.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS104

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352771E, 426026N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.17m OD

Scale

1:30

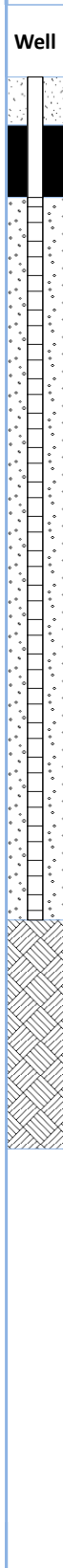
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.30-1.00	ES		0.25	26.92	Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		1.20	SPT	N=12 (2,2/2,3,3,4)	1.00	26.17	Firm to stiff brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.	
	▼	2.00-2.45 2.00	D SPT	N=14 (4,5/5,3,3,3)	2.20	24.97	Medium dense brown SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
					2.40	24.77		
	▼	3.00-3.45 3.00	D SPT	N=10 (2,3/2,2,3,3)	2.80	24.37	Firm brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subrounded of quartz, quartzite, limestone, sandstone and mudstone.	
					3.80	23.37	Medium dense very gravelly SAND. Sand is medium to coarse. Gravel is fine to medium, subangular to rounded of sandstone and mudstone.	
				4.00		Firm brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subrounded of quartz, quartzite, limestone, sandstone and mudstone.		
				4.45	22.72	End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage encountered at 2.20m and 2.80m bgl.
3. No recovery within SPT at 4.00m bgl.
4. Hole installed to 3.50m bgl; 0.50m plain pipe and 3.00m slotted pipe.
5. Hole backfilled with arisings between 3.50m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS105

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352810E, 426111N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.05m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.10	ES		0.10	26.95		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL). Firm to stiff light brown grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Firm to stiff light brown grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Stiff to very stiff brown mottled orange and grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		0.10-0.30	ES					
		0.30-0.45	ES		0.30	26.75		
					0.45	26.60		
		1.20-1.65	D					
		1.20	SPT	N=15 (2,2/3,4,4,4)				
		2.00-2.45	D					
		2.00	SPT	N=15 (2,3/4,3,4,4)				
		3.00-3.45	D					
		3.00	SPT	N=14 (3,3/4,3,4,3)				
		4.00	SPT	N=14 (2,3/3,3,4,4)				
					4.45	22.60		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS106

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352755E, 426125N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.92m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.30-0.60	ES		0.30	26.62	Stiff dark greyish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
					0.60	26.32	Stiff reddish brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		1.20	SPT	N=8 (2,2/2,2,2,2)				
		2.00-2.45 2.00	D SPT	N=11 (2,2/2,3,3,3)	1.80	25.12		Stiff reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite and limestone.
	3.00	SPT	N=14 (3,3/3,3,4,4)					
	4.00-4.45 4.00	D SPT	N=13 (2,3/3,3,3,4)	4.45	22.47		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS107

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352700E, 426167N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.80m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.25	ES		0.25	26.55		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
					0.45	26.35		Stiff dark greyish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=11 (3,2/3,2,3,3)	1.50	25.30		Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	1.0
		2.00	SPT	N=12 (3,2/3,3,3,3)				Stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	2.0
		3.00	SPT	N=17 (3,4/3,4,5,5)	2.50	24.30		Stiff reddish brown slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	3.0
		4.00	SPT	N=20 (3,4/4,5,5,6)					4.0
					4.45	22.35		End of Borehole at 4.45m	5.0
									6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS108

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352791E, 426186N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.46m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.27	ES					<p>MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of brick, sandstone and mudstone.</p> <p>Stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.</p> <p>Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.</p>
		0.27			27.19			
		0.40	HSV	120kPa	0.47	26.99		
		0.50	HSV	120kPa				
				1.20	26.26			End of Borehole at 1.20m



Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Window sample hole could not be progressed due to proximity to horses.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS109

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352947E, 426037N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.82m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.38	ES		0.10	27.72		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.38	27.44		Firm to stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
					0.63	27.18		Stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
		1.20-1.65 1.20	D SPT	N=10 (2,2/2,2,3,3)				Stiff to very stiff brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is angular to subangular of sandstone and mudstone. Cobbles are subangular to subrounded of mudstone.
		2.00-2.45 2.00	D SPT	N=16 (2,3/3,4,4,5)				
		3.00-3.45 3.00	D SPT	N=8 (1,2/2,2,2,2)				
		4.00	SPT	N=9 (1,2/2,2,3,2)				
					4.45	23.36		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS110

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352851E, 426062N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.12m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.23	ES		0.23	26.89		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		0.52-0.62	ES		0.52 0.62	26.60 26.50		Stiff to very stiff greyish brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=12 (2,2/3,3,3,3)				Dark brown spongy fibrous PEAT.
		2.00-2.45 2.00	D SPT	N=8 (2,2/2,2,2,2)				Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		3.00-3.45 3.00	D SPT	N=10 (2,2/2,3,2,3)				
		4.00	SPT	N=10 (2,2/2,2,3,3)				
					4.45	22.67		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS111

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352876E, 426037N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.54m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.28	ES		0.10	27.44		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Firm to stiff light brown grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p> <p>Firm to stiff light grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.</p> <p>Stiff to very stiff light brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.</p>
					0.28	27.26		
					0.38	27.16		
		1.20-1.65	D	N=17				
		1.20	SPT	(2,3/3,4,5,5)				
		2.00-2.45	D	N=14				
		2.00	SPT	(2,3/3,4,4,3)				
		3.00-3.45	D	N=9				
		3.00	SPT	(2,1/2,3,2,2)				
		4.00	SPT	N=10				
				(2,2/2,2,3,3)	4.45	23.09		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS112

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352872E, 425969N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.12m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	26.92		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=15 (2,3/3,4,4,4)	1.50	25.62		Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		2.00	SPT	N=12 (2,3/3,3,3,3)	2.90	24.22		Stiff reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		3.00-3.45 3.00	D SPT	N=15 (2,3/3,4,4,4)	4.00	22.68		Firm to stiff brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of quartz, limestone and mudstone.
		4.00	SPT	N=13 (2,3/3,3,4,3)	End of Borehole at 4.45m			

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 2.00m bgl.
4. Hole installed to 4.00m bgl; 1.50m plain pipe and 2.50m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS113

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352981E, 425960N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.02m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.46	ES		0.46	27.56	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=13 (2,2/3,3,4,3)	1.20	26.82	Stiff to very stiff brown mottled orange and grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=13 (2,3/3,3,3,4)			Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		3.00	SPT	N=8 (1,2/2,1,2,3)				
		4.00-4.45 4.00	D SPT	N=14 (2,2/2,4,4,4)	4.45	23.57	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 3.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS114

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352851E, 425920N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.03m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	27.83		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL). Light grey clayey SAND. Sand is fine to coarse.
		0.20-0.60	ES					
		1.20-1.65	D		0.80	27.23		Firm brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, limestone and mudstone.
		1.20	SPT	N=12 (2,2/2,3,3,4)				
		2.00-2.45	D					
2.00	SPT	N=14 (4,5/5,3,3,3)						
		3.00	SPT	N=10 (2,3/2,2,3,3)				
		4.00	SPT	N=22 (3,3/5,5,6,6)	3.90	24.13		Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
					4.45	23.58		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS115

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352881E, 425896N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.54m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	28.34		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=6 (1,0/0,1,2,3)	1.30	27.24		
		2.00	SPT	N=12 (2,2/2,3,3,4)				Firm to stiff brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of quartz, limestone, sandstone and mudstone.
		3.00	SPT	N=13 (2,2/3,3,3,4)				
		4.00-4.45 4.00	D SPT	N=22 (3,4/5,5,6,6)	3.60	24.94		Firm reddish brown slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
				4.45	24.09		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 2.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS116

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352911E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.93m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES		0.25	27.68	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=18 (2,3/4,4,5,5)	1.30	26.63	Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		2.00	SPT	N=16 (2,3/3,4,4,5)	2.00	25.93	Firm to stiff reddish brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.	
		3.00-3.45 3.00	D SPT	N=10 (2,2/2,2,3,3)	3.00	24.93	Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		4.00	SPT	N=21 (3,3/4,5,6,6)	4.45	23.48	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS117

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352936E, 425727N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.11m OD

Scale

1:30


CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES		0.25	27.86	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.30-1.00	ES				Brown gravelly SAND with pockets of clay. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=5 (1,1/0,0,2,3)	1.30	26.81	Firm reddish brown slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=17 (2,3/3,4,5,5)			<i>Gravelly sand band between 2.00m and 2.10m bgl.</i>	
		3.00	SPT	N=17 (2,3/3,4,5,5)				
		4.00	SPT	N=21 (3,3/4,5,6,6)	3.60	24.51	Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
					4.45	23.66	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 3.00m and 4.00m bgl.
4. Hole installed to 1.30m bgl; 0.50m plain pipe and 0.80m slotted pipe.
5. Hole backfilled with arisings between 1.30m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS118

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352982E, 425744N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.15m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES		0.25	27.90		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=14 (2,2/3,3,4,4)				Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		2.00	SPT	N=15 (2,3/3,4,4,4)	2.20	25.95	Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	
		3.00-3.45 3.00	D SPT	N=13 (2,2/3,3,3,4)				
		4.00	SPT	N=14 (2,3/3,3,4,4)				
				4.45	23.70		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS119

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352957E, 425791N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.16m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.38	ES		0.38	27.78		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.56	27.60		Very stiff greyish dark brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
					0.62	27.54		Orange brown slightly gravelly clayey SAND. Sand is fine to medium. Gravel is fine, angular to subangular of mudstone.
		1.20-1.65	D		1.20	26.96		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20	SPT	N=15 (2,3/3,3,4,5)				Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45	D					
		2.00	SPT	N=14 (3,3/3,3,4,4)				
		3.00-3.45	D					
		3.00	SPT	N=11 (2,2/2,3,3,3)				
		4.00	SPT	N=15 (3,2/3,4,4,4)				
					4.45	23.71		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS120

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352982E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.16m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	27.96		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.37	27.80		
		1.20-1.65 1.20	D SPT	N=15 (2,3/3,4,3,5)	1.20	26.96		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=14 (3,3/3,4,4,3)				Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		3.00-3.45 3.00	D SPT	N=9 (2,2/2,2,3)				Stiff to very stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	4.00	SPT	N=10 (2,2/2,2,3,3)				Stiff to very stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
					4.45	23.72		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS121

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352992E, 425850N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.17m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.50	27.67			
				0.68	27.49		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=11 (2,2/2,3,3,3)			Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
				1.60	26.57			
		2.00-2.45 2.00	D SPT	N=14 (2,2/3,3,4,4)			Stiff to very stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
				3.00				
			SPT	N=11 (2,2/3,3,2,3)				
				4.00-4.45 4.00				
			D SPT	N=8 (1,2/1,2,2,3)				
				4.45	23.72		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 3.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS122

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352947E, 425896N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.18m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.28	ES		0.27	27.91		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=11 (2,2/3,3,3,2)	1.20	26.98		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=10 (2,2/2,2,3,3)				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		3.00-3.45 3.00	D SPT	N=7 (2,1/1,2,2,2)				
		4.00	SPT	N=10 (2,2/3,2,3,2)	4.45	23.73		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS123

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 425720N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.19m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.32	27.87		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=9 (1,2/3,2,2,2)	1.36	26.83		Soft brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=22 (2,3/4,6,6,6)	1.74	26.45		Medium dense brown fine to coarse SAND.
		3.00-3.45 3.00	D SPT	N=11 (2,2/2,3,3,3)				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		4.00	SPT	N=6 (2,1/2,1,2,1)	4.45	23.74		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Very small groundwater seepage encountered at 1.36m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS124

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353060E, 425777N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.20m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.35	27.84	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).	
		0.80	D				Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20	D SPT	N=14 (2,4/3,3,4,4)	1.26	26.94	Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00	SPT	N=16 (2,2/4,4,4,4)				
		2.50	D					
		3.00	SPT	N=9 (2,2/2,2,3,2)			Clay becoming firm from 3.10m to 4.45m bgl.	
		4.00	SPT	N=9 (2,2/2,2,2,3)				
					4.45	23.74	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS125

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 425791N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.20m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.27	27.93		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).
					0.62	27.58		Firm greyish brown very sandy CLAY. Sand is fine to coarse.
		0.80	D		0.80	27.40		Greyish brown fine to coarse SAND.
		1.20	SPT	N=5 (1,1/0,1,2,2)	1.20	27.00		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00	SPT	N=13 (1,2/3,3,4,3)				
		2.50	D					
		3.00	SPT	N=13 (2,3/2,3,4,4)				
		4.00	SPT	N=18 (3,3/3,4,5,6)				
		4.45			4.45	23.75		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Small groundwater seepage encountered at 1.15m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS126

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353087E, 425874N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.21m OD

Scale

1:30


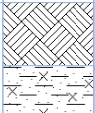
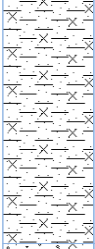
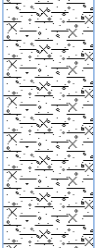
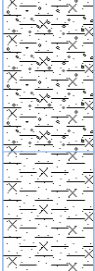
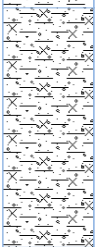
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES		0.25	27.96	 Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=12 (1,2/2,3,3,4)	1.40	26.81	 Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel and rootlets. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.	
		2.00	SPT	N=18 (3,4/4,4,5,5)			 Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, limestone, sandstone and mudstone.	
		3.00-3.45 3.00	D SPT	N=26 (4,5/6,6,6,8)	3.00	25.21	 Firm reddish brown slightly sandy silty CLAY. Sand is fine to coarse.	
		4.00	SPT	N=20 (4,4/4,5,5,6)	3.50	24.71	 Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	
				4.45	23.76	End of Borehole at 4.45m		

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS127

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353134E, 425920N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.22m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 19/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Overgrown vegetation over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, sandstone and mudstone (TOPSOIL).	
		0.80 0.80-1.00	D ES		0.55 27.67		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=13 (2,2/3,3,4,3)	1.42 26.80		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=17 (2,2/2,4,5,6)				
		3.00	SPT	N=15 (2,3/3,4,4,4)				
	4.00	SPT	N=12 (2,2/3,3,3,3)					
				4.45	23.77		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain, 3.00m slotted.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS128

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353028E, 425720N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.23m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.25			27.98		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
		1.20	SPT	N=12 (2,2/3,3,3,3)	26.23		Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel and rootlets. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.	
		2.00	SPT	N=17 (3,3/4,4,5)	23.78		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, limestone, sandstone and mudstone.	
		3.00	SPT	N=17 (3,3/4,4,5)	4.45		Clay becoming very sandy below 3.80m bgl.	
		4.00	SPT	N=11 (2,1/2,3,3,3)			End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 3.80m bgl, rising to 3.00m bgl after 5 minutes.
3. Hole installed to 4.00m bgl; 2.00m plain pipe and 2.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS129

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353028E, 425791N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.12m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	27.92		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=8 (2,1/2,2,2,2)				
		2.00-2.45 2.00	D SPT	N=8 (2,2/2,2,2,2)	1.80	26.32		
		3.00	SPT	N=29 (6,6/6,7,8,8)				
		4.00	SPT	N=15 (3,3/3,4,4,4)				
					4.45	23.68		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS130

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353053E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.10m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
		0.40-1.00	D		0.40		Brown mottled orange and grey slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.	
		1.20	SPT	N=9 (2,1/2,2,2,3)	1.10		Stiff mottled brown orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=12 (2,2/3,3,3,3)	2.00		Firm brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.	
		3.00	SPT	N=7 (2,1/1,2,2,2)				
		4.00	SPT	N=9 (1,2/2,2,2,3)				
					4.45		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS131

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353028E, 425932N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.03m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.30	27.73		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=12 (2,3/3,3,3,3)				Stiff brown mottled orange and grey slightly sandy silty CLAY with rare gravel and rootlets. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=11 (2,2/3,2,3,3)	1.90	26.13		Firm to stiff brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.
		3.00	SPT	N=9 (1,1/2,2,2,3)	2.50	25.53		Firm reddish brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.
		4.00	SPT	N=13 (2,2/3,3,3,4)	4.45	23.58		
								End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS132

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353053E, 425956N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.97m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
		0.30-1.00	ES		0.25	27.72	Firm to stiff greyish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of limestone, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=10 (1,1/2,2,3,3)	1.10	26.87	Firm brown mottled orange and grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.	
		2.00	SPT	N=11 (2,2/2,3,3)	2.00	25.97	Firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, mudstone and sandstone.	
		3.00-3.45 3.00	D SPT	N=11 (3,2/2,3,3)				
		4.00	SPT	N=11 (2,2/2,3,3)				
					4.50	23.47	Firm reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone.	
		5.00-5.45 5.00	D SPT	N=13 (2,3/3,3,3,4)				
					5.45	22.52	End of Borehole at 5.45m	

Remarks

- Hand dug inspection pit to 1.20m bgl.
- Groundwater encountered at 4.70m bgl.
- Hole installed to 5.00m bgl; 3.00m plain pipe and 2.00m slotted pipe.
- Hole backfilled with arisings between 5.00m bgl and the base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS133

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352978E, 426128N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.90m OD

Scale

1:30


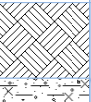
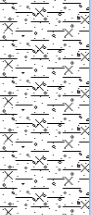
CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	27.60		Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).
		0.40-0.60	ES					Firm to stiff reddish brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, limestone, sandstone and mudstone. Cobbles are subrounded of sandstone.
		1.20	SPT	N=22 (3,4/5,6,6,5)	1.30	26.60		Medium dense brown clayey very gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse, subrounded to rounded of quartz, quartzite, limestone and sandstone.
		1.30-1.50	D		1.50	26.40		Firm to stiff reddish brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, limestone, sandstone and mudstone. Cobbles are subrounded of sandstone.
		2.00-2.45	D		1.80	26.10		Firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of quartz, limestone, sandstone and mudstone. <i>Clay becoming soft below 2.40m bgl.</i>
		2.00	SPT	N=12 (2,3/3,3,3,3)				
		3.00	SPT	N=8 (1,2/2,2,2,2)				
	4.00	SPT	N=10 (2,2/2,2,3,3)					
				4.45	23.46		End of Borehole at 4.45m	

Remarks

- Hand dug inspection pit to 1.20m bgl.
- No groundwater encountered.
- No recovery within SPT at 1.20m, 3.00m and 4.00m bgl.
- Hole installed to 1.80m bgl; 0.80m plain pipe, 1.00m slotted pipe.
- Hole backfilled with bentonite between 1.80m and 4.45m bgl.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS134

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352947E, 426108N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.84m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
					0.40	27.44		
					0.60	27.24	Very stiff dark brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
					1.00	26.84	Stiff to very stiff lightly brown to brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=12 (2,2/2,3,3,4)			Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=11 (1,2/2,3,3,3)				
		3.00-3.45 3.00	D SPT	N=9 (1,2/2,2,2,3)				
					3.39	24.45	Soft to firm grey slightly sandy clayey SILT. Sand is fine to coarse.	
		4.00	SPT	N=10 (2,2/2,2,3,3)	3.89	23.95	Stiff to very stiff lightly brown to brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
					4.45	23.39	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings between ground level and 0.40m bgl, postcrete between 0.40m and 0.90m bgl (to prevent settlement), and arisings between 0.90m and the base of the hole.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS135

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352917E, 426164N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.78m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
					0.40	27.38		Very stiff grey to dark grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
					0.60	27.18		
		1.20-1.65 1.20	D SPT	N=9 (1,2/2,2,2,3)				
		2.00-2.45 2.00	D SPT	N=11 (2,2/2,3,3,3)				
	3.00-3.45 3.00	D SPT	N=11 (2,2/2,3,3,3)					
		4.00	SPT	N=9 (1,1/2,2,2,3)				
					4.45	23.33		End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 3.50m bgl.
3. Hole installed to 4.00m bgl; 0.50m plain pipe, 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m and base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS136

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352876E, 426108N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.72m OD

Scale

1:30


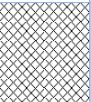










CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged
Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.40	ES		0.40 0.45	27.32 27.27		MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly slightly sandy clay with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, subangular to angular of mudstone and brick.	
								Greyish brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.	
								Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
			1.20-1.65 1.20	D SPT	N=7 (2,2/2,1,2,2)	1.42	26.92 26.82		Greyish brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.
									Firm to stiff brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
			2.00-2.45 2.00	D SPT	N=14 (3,3/3,3,4,4)				Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
									
			3.00-3.45 3.00	D SPT	N=14 (2,3/3,3,4,4)				
									
			4.00	SPT	N=14 (3,3/3,4,3,4)				
					4.45	23.27		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 0.50m plain pipe, 3.50m slotted pipe.
4. Hole backfilled with arisings between 4.00m and base.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS137

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352858E, 426169N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.66m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

NS

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.35	27.31		Grass over dark brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
					1.20	26.46		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
								End of Borehole at 1.20m

Remarks

- Hand dug inspection pit to 1.20m bgl. Window sample borehole could not be progressed due to proximity to horses.
- Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS138

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352807E, 426139N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.60m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	27.30		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
		1.20-1.65 1.20	D SPT	N=13 (2,3/3,3,3,4)				Stiff reddish brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		2.00	SPT	N=12 (2,2/3,3,3,3)	2.10	25.50		Firm reddish brown mottled grey sandy silty CLAY with rare gravel. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
		3.00	SPT	N=5 (2,2/1,1,2,1)				
		4.00	SPT	N=14 (2,2/3,3,4,4)				
				4.45	23.15		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS139

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352816E, 426214N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.54m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.30			27.24		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
		0.50	HSV	122kPa			Stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	
		0.75	HSV	124kPa				
		1.00			26.54			
		1.15	D		26.34		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.	
							End of Borehole at 1.20m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Window sample hole could not be progressed due to proximity to horses.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS140

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352771E, 426225N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.47m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.35-1.20	ES	120kPa	0.35	27.12		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
		0.45	HSV					
		0.80	HSV	120kPa	1.20	26.27		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.
End of Borehole at 1.20m								

1.0

2.0

3.0

4.0

5.0

6.0

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Window sample hole could not be progressed due to proximity to horses.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS141

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352788E, 426257N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.41m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.04-0.34	ES		0.04	27.37		MADE GROUND: Paving Slabs. Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
		0.34-0.54	ES					
		0.54-1.00	ES		0.54	26.87		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.
		1.00-1.45	ES		1.00	26.41		
		1.20-1.65 1.20	D SPT	N=13 (2,3/3,4,3,3)	1.45	25.96		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of siltstone, sandstone and mudstone.
		2.00-2.45 2.00	D SPT	N=15 (3,3/3,4,4,4)				Stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.
	3.00-3.45 3.00	D SPT	N=19 (4,4/4,4,5,6)					
	4.00	SPT	N=13 (4,3/3,3,3,4)					
				4.45	22.96		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Suspected asbestos cement roof sheeting noted to be present on the hardstanding in vicinity to WS141.
3. No groundwater encountered.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS142

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352957E, 426214N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.46m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES				Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone (TOPSOIL).	
					0.38	29.08		Firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
					0.75	28.71		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
			1.20	D SPT	N=8 (1,2/2,2,2,2)			
			2.00	D SPT	N=8 (2,2/2,2,2,2)			
		3.00	D SPT	N=8 (1,1/2,2,2,2)	2.80	26.66		Firm grey very sandy CLAY. Sand is fine to coarse.
		4.00	SPT	N=10 (2,2/2,2,3,3)	4.45	25.01		
		End of Borehole at 4.45m						

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS143

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352990E, 426272N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.10m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.15	27.95	<p>MADE GROUND TOPSOIL: Grass over dark brown gravelly slightly clayey sand. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded, of limestone, brick, and rare glass/plastic.</p> <p>MADE GROUND: Brick cobbles of 5-15mm in diameter, aligned and mortared (former greenhouse base layer).</p>	
					0.70	27.40		
		1.20	D SPT	N=6 (1,1/1,1,2,2)			<p>Firm greyish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular fine to coarse of mudstone.</p> <p>Clay becoming stiff from 2.10m bgl.</p>	
		2.00	D SPT	N=9 (1,1/2,2,2,3)				
		3.00	D SPT	N=13 (2,2/3,3,3,4)				
		4.00	SPT	N=11 (2,2/2,3,3,3)				
					4.45	23.65	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery obtained from sampler between 3.00m and 4.00m bgl.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS144

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353009E, 426251N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.72m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.35	27.36		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone (TOPSOIL).	
					0.75	26.96		Firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
					1.20				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
			D SPT	N=10 (2,2/2,2,3,3)					
			D SPT	N=12 (2,2/3,3,3,3)					
			D SPT	N=6 (1,1/1,1,2,2)					
		4.00	SPT	N=12 (2,2/2,3,3,4)	4.45	23.26			
End of Borehole at 4.45m									

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. Groundwater encountered at 3.50m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS145

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353698E, 426414N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 32.57m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	32.27	MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=11 (2,2/2,3,3,3)	1.20	31.37	Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=14 (3,2/3,3,3,5)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=15 (3,4/4,3,4,4)				
		4.00	SPT	N=18 (4,3/3,4,6,5)	4.45	28.12	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS146

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353733E, 426425N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 32.94m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES		0.35	32.59	Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		1.20-1.65 1.20	D SPT	N=10 (2,2/2,3,3,2)	1.00	31.94	Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=23 (3,5/5,5,7,6)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subangular to subrounded of sandstone.	
		3.00-3.45 3.00	D SPT	N=14 (4,3/3,4,3,4)				
		4.00-4.45 4.00	D SPT	N=18 (3,3/4,5,5,4)	4.45	28.49	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS147

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353733E, 426355N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.54m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES		0.40	31.14		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.60	30.94		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
					1.00	30.54		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=13 (2,2/3,3,3,4)				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=16 (3,4/4,4,4,4)				
	3.00-3.45 3.00	D SPT	N=15 (3,3/4,4,3,4)					
	4.00-4.45 4.00	D SPT	N=13 (4,2/3,3,4,3)					
				4.45	27.09			End of Borehole at 4.45m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS148

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353663E, 426355N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.00m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.38	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.50-1.00	ES		0.38 0.65		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=15 (1,2/3,4,4,4)	1.00		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=13 (2,2/3,3,3,4)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subangular to subrounded of sandstone.	
		3.00-3.45 3.00	D SPT	N=16 (2,3/3,4,4,5)				
		4.00	SPT	N=17 (2,3/3,4,5,5)				
					4.45	26.54	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS149

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353688E, 426379N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.25m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.50-1.00	ES		0.40 0.48		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT		1.00		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		3.00-3.45 3.00	D SPT					
		4.00	SPT					
					4.45	26.80	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS15

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353560E, 425924N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.94m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.50	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
					0.50	28.44		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=6 (1,1/1,1,2,2)	1.20	27.74		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=11 (3,3/3,2,3,3)				
		3.00-3.45 3.00	D SPT	N=9 (2,2/2,2,3)				
	4.00-4.45 4.00	D SPT	N=11 (2,3/2,3,3,3)	4.45	24.49		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS150

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353617E, 426379N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.82m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
		0.40-0.50	ES		0.40 0.50		31.42 31.32	Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=13 (2,2/3,3,3,4)	1.20		30.62	Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		2.00-2.45 2.00	D SPT	N=17 (2,3/3,4,5,5)				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		3.00	SPT	N=15 (2,3/3,4,4,4)				
		4.00-4.45 4.00	D SPT	N=14 (2,2/2,3,4,5)	4.45	27.37	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery in SPT at 3.00m bgl.
4. Hole installed to 4.00m bgl; 0.50m plain pipe and 3.50m slotted pipe.
5. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS151

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352988E, 426163N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.95m OD

Scale

1:30


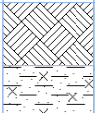
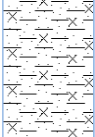
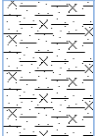
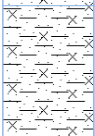

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.25	ES		0.25	30.70		Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).
		1.00	HSV	140kPa				Stiff dark reddish brown mottled grey and orange slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone, quartz, limestone and quartzite.
		1.20-1.65	D					
		1.20	SPT	N=14 (3,3/3,3,4,4)				
	▼	2.00	SPT	N=10 (1,2/2,2,3,3)				
	▼	2.40			2.40	28.55		Soft dark reddish brown slightly sandy silty CLAY. Sand is fine to coarse.
	3.00	SPT	N=5 (1,1/2,1,1,1)					
	3.40			3.40	27.55		Soft to firm reddish brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.	
	4.00	SPT	N=11 (1,1/2,3,3,3)					
				4.45	26.50		End of Borehole at 4.45m	

Remarks

- Hand dug inspection pit to 1.20m bgl.
- Slight groundwater seepage encountered at 2.10m and 2.90m bgl.
- Hole installed to 4.00m bgl; 1.00m plain pipe, 3.00m slotted pipe.
- Hole backfilled with arisings between 4.00m and base.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS152

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352947E, 426167N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.04m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND


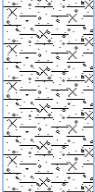
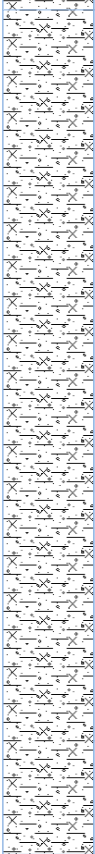
DATES: 11/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	30.74	 Grass dark brown gravelly clayey SAND. Sand is fine to coarse. Gravel is fine, subangular to subrounded of sanstone and mudstone (TOPSOIL).	
		0.40-1.00	ES					
		1.20	SPT	N=13 (2,3/3,3,4,3)	1.10	29.94	 Firm dark grey mottled orange brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of siltstone, sandstone, limestone and quartzite.	
		2.00-2.45 2.00	D SPT	N=14 (2,3/3,3,4,4)				
		3.00	SPT	N=10 (2,2/2,2,3,3)			 Firm reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of quartz, limestone, sandstone and mudstone.	
		4.00-4.45 4.00	D SPT	N=12 (2,2/3,3,3,3)	4.45	26.58		
							Clay becoming soft below 4.00m bgl.	
							End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings between ground level and 0.30m bgl, postcrete between 0.30m and 1.00m bgl (to prevent settlement), bentonite between 1.00m and 2.00m bgl, and arisings between 2.00m and the base of the hole.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane

Borehole Log

Window Sampler No.

WS153

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352950E, 426138N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.88m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged
Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	30.58	Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).	
		1.20-1.65 1.20	D SPT HSV	N=12 (2,2/2,3,4,3) 140kPa	1.50	29.38	Firm to stiff reddish brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of quartz, limestone, sandstone and mudstone. Cobbles are subrounded of sandstone.	
		2.00	SPT	N=15 (2,3/3,4,4,4)			Firm dark reddish brown mottled grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to subrounded of quartz, limestone, sandstone and mudstone.	
		3.00-3.45 3.00	D SPT	N=8 (2,2/2,2,2,2)				
		4.00	SPT	N=11 (2,2/3,2,3,3)	4.45	26.43		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings between ground level and 0.30m bgl, postcrete between 0.30m and 0.80m bgl (to prevent settlement), bentonite between 0.80m and 1.80m bgl, and arisings between 1.80m and the base of the hole.

 ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS154

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352913E, 426099N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.73m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).	
				0.36	30.37			
				0.46	30.27		Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.	
				1.00	29.73		Stiff to very stiff orangish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=15 (2,2/3,3,4,5)			Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=18 (3,3/4,4,5,5)				
		3.00-3.45 3.00	D SPT	N=18 (3,4/4,5,4,5)				
		4.00	SPT	N=14 (3,3/3,3,4,4)				
				4.45	26.28		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings between ground level and 0.36m bgl, postcrete between 0.36m and 0.90m bgl (to prevent settlement), and arisings between 0.90m and the base of the hole.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS155

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352907E, 426132N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.58m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).	
				0.40	30.18			
				0.50	30.08		Very stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.	
				1.00	29.58		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=7 (2,1/2,2,1,2)			Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=13 (2,2/3,3,3,4)				
		3.00-3.45 3.00	D SPT	N=9 (1,2/2,2,3,2)				
		4.00	SPT	N=13 (2,3/3,3,4,3)				
				4.45	26.13		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings between ground level and 0.40m bgl, postcrete between 0.40m and 0.90m bgl (to prevent settlement), and arisings between 0.90m and the base of the hole.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS156

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352882E, 426155N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.43m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

PG

Checked

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).	
					0.40	30.03		
					0.68	29.75	Stiff to very stiff grey to dark grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.	
							Soft to firm light brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.	
		1.20	SPT	N=7 (1,1/1,2,2,2)				
					1.45	28.98	Stiff to very stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=10 (1,1/2,2,3,3)				
		3.00-3.45 3.00	D SPT	N=11 (2,2/2,3,3,3)				
		4.00	SPT	N=15 (3,3/3,4,4,4)				
					4.45	25.98	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. No recovery within SPT at 1.20m bgl.
4. Hole backfilled with arisings between ground level and 0.40m bgl, postcrete between 0.40m and 0.90m bgl (to prevent settlement), and arisings between 0.90m and the base of the hole.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS157

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352851E, 426132N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.28m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown gravelly clayey SAND with frequent fine rootlets. Sand is fine to medium. Gravel is fine to medium, subangular to rounded of sandstone, quartz, limestone and quartzite (TOPSOIL).	
		0.40-1.00	ES		0.40	29.88	Reddish brown gravelly SAND. Sand is fine to medium. Gravel is fine to medium, angular to subangular of sandstone and mudstone.	
		1.20-1.65 1.20	D SPT	N=12 (1,2/2,3,3,4)	1.00	29.28	Stiff to very stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.	
		2.00-2.45 2.00	D SPT	N=17 (3,3/3,5,4,5)				
		3.00-3.45 3.00	D SPT	N=14 (3,3/2,3,4,5)				
		4.00	SPT	N=15 (3,3/3,4,4,4)				
					4.45	25.83	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings between ground level and 0.40m bgl, postcrete between 0.40m and 0.90m bgl (to prevent settlement), and arisings between 0.90m and the base of the hole.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS158

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353627E, 426414N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.13m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.38	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.37	29.76			
				0.47	29.66		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
							Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65	D SPT	N=11 (1,1/2,3,3,3)	1.00	29.13	Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20						
		2.00-2.45	D SPT	N=12 (2,3/3,3,3,3)				
		2.00						
		3.00-3.45	D SPT	N=12 (2,2/3,3,3,3)				
		3.00						
		4.00-4.45	D SPT	N=14 (2,2/3,3,4,4)				
		4.00						
				4.45	25.68		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS159

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353644E, 426372N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.98m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.	
				0.40 0.48	29.58 29.50		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=14 (2,2/3,3,4,4)	1.00	28.98	Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=17 (3,3/4,4,4,5)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		3.00-3.45 3.00	D SPT	N=20 (2,3/4,5,5,6)				
		4.00-4.45 4.00	D SPT	N=17 (2,3/3,4,5,5)	4.45	25.52		
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS16

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353476E, 425815N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.80m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

GRP

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00-0.30	ES		0.30	28.50		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	1.0 2.0 3.0 4.0 5.0 6.0
		0.40-0.70	ES						
		0.90-1.00	D		0.90 1.00	27.90 27.80			
		1.20-1.65 1.20	D SPT	N=11 (1,2/2,3,3,3)					
		2.00	SPT	N=12 (2,2/2,3,3,4)	1.90	26.90			
		3.00-3.45 3.00	D SPT	N=20 (2,3/4,5,5,6)	3.10 3.20	25.70 25.60			
		4.00	SPT	N=18 (3,3/4,4,5,5)					
				4.45	24.36			End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole installed to 4.00m bgl; 1.00m plain pipe and 3.00m slotted pipe.
4. Hole backfilled with arisings between 4.00m bgl and the base.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS160

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353627E, 426344N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.83m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.40	ES				Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.40 0.48	29.43 29.35		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
				1.00	28.83		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=12 (2,2/2,3,3,4)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of siltstone, mudstone.	
		1.50-2.00	ES					
		2.00-2.45 2.00	D SPT	N=15 (2,3/3,4,4,4)				
		3.00-3.45 3.00	D SPT	N=15 (2,3/3,3,4,5)				
		4.00	SPT	N=16 (2,3/3,4,4,5)				
				4.45	25.38		End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS161

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353652E, 426320N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.67m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.20	ES		0.20	29.47	MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of ceramic, sandstone and mudstone.	
					0.40	29.27		
		1.00-1.50	ES				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=13 (2,3/3,3,3,4)	1.20	28.47	Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		2.00-2.45 2.00	D SPT	N=24 (3,4/5,6,6,7)			Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of siltstone, mudstone.	
		3.00-3.45 3.00	D SPT	N=22 (3,4/4,5,6,7)				
		4.00	SPT	N=15 (2,3/3,4,4,4)				
					4.45	25.22	End of Borehole at 4.45m	

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS162

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353687E, 426310N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.52m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.30	ES		0.30	29.22		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
					0.53	28.99		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.00-1.50	ES		1.00	28.52		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
		1.20-1.65 1.20	D SPT	N=15 (2,3/3,4,4,4)				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of siltstone, mudstone.
		2.00-2.45 2.00	D SPT	N≥50 (5,6/50 for 275mm)	2.00	27.52		Very dense dark grey / black slightly gravelly SAND. Sand is fine to coarse. Gravel is fine, angular of siltstone.
					2.43	27.10		End of Borehole at 2.42m

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Borehole Log

Window Sampler No.

WS163

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353725E, 426390N

Hole Type

WS

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.37m OD

Scale

1:30

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

PG

JMC

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00-0.35	ES				MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, glass, coal, sandstone and mudstone.	
		0.35-0.62	ES		0.35	29.02	Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
					0.62	28.75	Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
		1.20-1.65 1.20	D SPT	N=14 (2,2/3,3,4,4)	1.00	28.37	Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of siltstone, mudstone.	
		2.00-2.45 2.00	D SPT	N=26 (6,6/5,7,7,7)				
		3.00-3.45 3.00	D SPT	N=14 (4,4/4,3,4,3)				
	4.00-4.45 4.00	D SPT	N=14 (3,3/3,4,3,4)	4.45	24.92			
End of Borehole at 4.45m								

Remarks

1. Hand dug inspection pit to 1.20m bgl.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP01

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353758E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.48m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.13		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.60	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	119kPa	1.05	27.43		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	143kPa				
	3.00	HSV	126kPa	3.00	25.48		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP02

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353733E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
				0.40	27.54		Firm light brown slightly sandy CLAY. Sand is fine to coarse.	
	1.00	D HSV	70kPa		27.19		Stiff reddish brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	2.00	D HSV	108kPa					2.0
	3.00	HSV	139kPa	3.00	24.94		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP03

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353723E, 425967N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.82m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.47		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	100kPa	1.10	27.72		
	1.50	D					Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	146kPa				
	2.50	D					
	3.00	HSV	109kPa	3.00	25.82		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP04

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353662E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.46m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.40	28.06		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
				0.75	27.71		Firm greyish brown slightly sandy silty CLAY. Sand is fine to coarse.
	0.80	D					Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	129kPa				
	2.00	D HSV	144kPa				
	3.00	HSV	107kPa	3.05	25.41		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP05

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353688E, 425956N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.15m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.80		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	119kPa	1.05	27.10		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	142kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	123kPa	3.00	25.15		Clay becoming reddish brown mottled grey from 2.30m bgl.
	End of Trial Pit at 3.00m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP06

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353617E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.74m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.40	28.34		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.80	D					Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	76kPa	1.10	27.64		
	2.00	D HSV	91kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	136kPa	3.00	25.74		
							End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP07

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353592E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.59		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	113kPa				
	1.50	D		1.30	27.64		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	138kPa				
	2.50	D					
	3.00	HSV	143kPa	3.05	25.89		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP08

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353617E, 425956N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.48m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.13		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	88kPa	1.05	27.43		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	118kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	101kPa	3.00	25.48		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP09

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353600E, 425919N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.06m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.76		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	83kPa	1.15	25.91		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	128kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	3.00	HSV	134kPa	3.00	24.06		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP10

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353758E, 425956N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.32m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.02		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	119kPa	1.30	27.02		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	148kPa				
	3.00	HSV	103kPa	3.00	25.32		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP11

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353668E, 425925N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.20		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	137kPa	1.20	27.35		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	150kPa				Very stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	3.00	HSV	139kPa	3.00	25.55		Clay becoming stiff below 2.60m bgl.
							End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP12

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353733E, 425932N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.24m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.89		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	88kPa	1.40	26.84		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	133kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	3.00	HSV	111kPa	3.05	25.19		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP13

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353719E, 425892N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.00m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.65		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	83kPa				
	1.50	D		1.30	26.70		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	132kPa				
	2.50	D					
	3.00	HSV	131kPa	3.00	25.00		
End of Trial Pit at 3.00m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP14

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353652E, 425826N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.03m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.68		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	113kPa				
	1.50	D		1.45	26.58		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	136kPa				
	2.50	D					
	3.00	HSV	124kPa	3.05	24.98		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP15

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353662E, 425861N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.16m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).	
				0.40	27.76		Firm greyish brown sandy CLAY. Sand is fine to coarse.	
				0.65	27.51		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.00	D HSV	81kPa					
				1.45	26.71		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	
	2.00	D HSV	129kPa					2.0
	3.00	HSV	142kPa	3.00	25.16		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP16

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353652E, 425896N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.11m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description		
	Depth (m)	Type	Results						
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).		
				0.40	27.71		Firm grey sandy CLAY. Sand is fine to coarse.		
				0.60	27.51		Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0	
	1.00	D HSV	71kPa	1.25	26.86		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.		
	2.00	D HSV	97kPa					2.0	
	3.00	HSV	82kPa	3.10	25.01			3.0	
	End of Trial Pit at 3.10m								4.0
								5.0	

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP17

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353592E, 425861N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.93m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.58		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.70	D					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	75kPa				
	1.50	D		1.50	26.43		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	134kPa				
	3.00	HSV	97kPa	3.00	24.93		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP18

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353582E, 425896N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.56m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.26		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	0.80	D					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	95kPa	1.15	27.41		
	1.20	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	103kPa				
	3.00	HSV	138kPa	3.05	25.51		
	End of Trial Pit at 3.05m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP19

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353546E, 425885N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.24		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	115kPa	1.10	27.44		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	142kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	3.00	HSV	143kPa	3.00	25.54		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP20

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353486E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.22m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.92		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	92kPa	1.35	26.86		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	129kPa	2.20	26.02		Stiff reddish brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subrounded up to 100mm of sandstone and mudstone.
	3.00	HSV	143kPa	3.00	25.22		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP21

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353441E, 425826N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.47m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.17		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.70	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	80kPa				
	1.50	D		1.40	27.07		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	129kPa	2.10	26.37		Stiff reddish brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subrounded up to 120mm of sandstone and mudstone.
	3.00	HSV	141kPa	3.00	25.47		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP22

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353416E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.18		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	143kPa	1.15	27.38		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	149kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	147kPa	3.05	25.48		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP23

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353380E, 425755N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.60m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

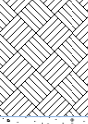
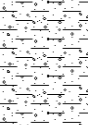
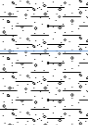
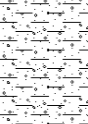
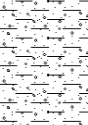
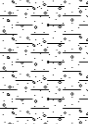
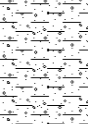
DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.40	28.20		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80	D					
	1.00	HSV	90kPa	1.00	27.60		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					
	2.00	HSV	137kPa				
				3.00	25.60		
							End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP24

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353345E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.66m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

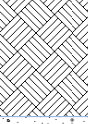
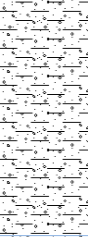
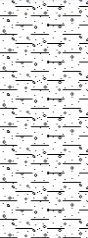
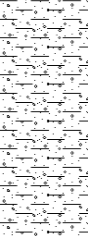
DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	109kPa	1.20	27.46		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	123kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	124kPa	3.00	25.66		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP25

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353310E, 425755N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.72m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.42		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	D		0.45	28.27		Firm light greyish brown very sandy CLAY. Sand is fine to coarse.
	0.80-1.00	ES					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	95kPa	1.25	27.47		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	146kPa				
	2.50	D					
	3.00	HSV	145kPa	3.10	25.62		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP26

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353204E, 425708N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.79m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.35	ES		0.35	28.44		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	D					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	99kPa	1.25	27.54		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	117kPa				
	3.00	HSV	145kPa	3.05	25.74		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP27

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353135E, 425709N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.85m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.50		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	82kPa	1.30	27.55		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	141kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	144kPa	3.00	25.85		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP28

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353229E, 425755N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.91m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.56		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	133kPa	1.10	27.81		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	138kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	150kPa	3.05	25.86		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP29

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353275E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.98m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.30	28.68		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	1.00	D HSV	141kPa	0.90	28.08		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	2.00	D HSV	149kPa	2.20	26.78		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subrounded up to 200mm of sandstone.	2.0
	3.00	HSV	150kPa	3.00	25.98		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP30

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353204E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.04m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.74		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	73kPa	1.10	27.94		Firm to stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	137kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	145kPa	3.00	26.04		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP31

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353229E, 425826N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.10m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.30	28.80		
				0.45	28.65		Light brown gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
	0.70	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	82kPa	1.00	28.10		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					
	2.00	HSV	140kPa				
	2.50	HSV	133kPa	2.55	26.55		
End of Trial Pit at 2.55m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP32

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353168E, 425826N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.16m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.81		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	93kPa	1.05	28.11		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	136kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.80	HSV	93kPa	2.75	26.41		End of Trial Pit at 2.75m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP33

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353204E, 425850N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.23m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.35	28.88		Grey very gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
				0.55	28.68		Stiff brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80-1.00	ES					
	1.00	HSV	89kPa				
	1.50	D		1.55	27.68		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	143kPa				
	2.50	D HSV	145kPa	2.50	26.73		End of Trial Pit at 2.50m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP34

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353194E, 425885N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.29m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.99		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	D		0.75	28.54		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	83kPa	0.88	28.41		Soft dark brown spongy fibrous PEAT.
				1.15	28.14		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	123kPa	2.20	27.09		Stiff reddish brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subrounded up to 200mm of sandstone.
				2.80	26.49		End of Trial Pit at 2.80m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP35

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 425885N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.35m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.00		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	119kPa	1.40	27.95		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	127kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.80	HSV	129kPa	2.85	26.50		End of Trial Pit at 2.85m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP36

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353275E, 425850N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.42m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	29.12		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	D					Firm to stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	133kPa	1.35	28.06		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	145kPa				
				3.00	26.42		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP37

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353300E, 425896N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.48m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	29.18		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	92kPa	1.10	28.38		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	145kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	146kPa	3.00	26.48		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP38

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353310E, 425932N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.19		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	71kPa				
	1.50	D		1.65	27.89		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	115kPa				
	2.50	D					
	3.00	HSV	143kPa	3.00	26.54		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP39

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353356E, 425850N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.60m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

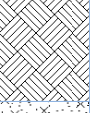
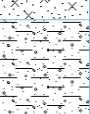
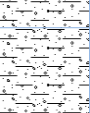
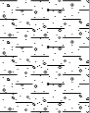
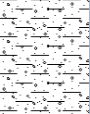
DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.50	D		0.35 0.45	29.25 29.15		Light grey silty SAND. Sand is fine to coarse.	
	1.00	HSV	72kPa	0.85	28.75		Firm brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	2.00	HSV	141kPa				End of Trial Pit at 3.05m	2.0
	3.00	HSV	106kPa	3.05	26.55			3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP40

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353380E, 425826N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.66m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.32		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	137kPa	1.05	28.62		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	135kPa				Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	3.00	HSV	132kPa	3.00	26.66		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP41

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353405E, 425991N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.73m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.38		Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	92kPa	1.35	28.38		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	150kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	3.00	HSV	147kPa	3.00	26.73		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP42

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353380E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.79m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.35	29.44		
				0.45	29.34		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				0.60	29.19		Soft dark brown / black slightly sandy clayey spongy fibrous PEAT. Sand is fine to coarse.
	0.80	D					
	1.00	HSV	137kPa				Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				1.40	28.39		
	2.00	D HSV	145kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	3.00	HSV	132kPa	3.00	26.79		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP43

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 425947N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.86m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.30	29.56		Firm grey slightly sandy silty CLAY. Sand is fine to coarse.
				0.50	29.36		Firm brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80-1.00	ES					
	1.00	HSV	70kPa				
				1.10	28.76		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	1.50	D					
	2.00	HSV	130kPa				
	2.50	D					
	3.00	HSV	135kPa				
				3.05	26.80		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP44

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353239E, 425932N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.35	29.57		Firm grey slightly sandy silty CLAY. Sand is fine to coarse.
				0.55	29.37		Firm brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	63kPa	1.20	28.72		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D HSV	133kPa				
	3.00	HSV	141kPa	3.05	26.87		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP45

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353206E, 425922N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.99m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.64		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	D					Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	92kPa	1.20	27.79		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D HSV	135kPa				
	3.00	HSV	122kPa	3.05	25.94		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP46

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353169E, 425932N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.45m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.10		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.65	27.80		Firm grey slightly sandy silty CLAY. Sand is fine to coarse.
	0.70	D					Firm brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	76kPa	1.20	27.25		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D HSV	129kPa				
	3.00	HSV	135kPa	3.00	25.45		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP47

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353194E, 425956N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.35	27.57		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.80-1.00	ES					Firm grey slightly sandy silty CLAY. Sand is fine to coarse.	
	1.00	HSV	65kPa	1.05	26.87		Firm brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.50	D		1.40	26.52		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.	
	2.00	HSV	133kPa					2.0
	2.50	D						
	3.00	HSV	142kPa	3.00	24.92		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP48

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353169E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.39m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.09		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	82kPa	1.25	26.14		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	125kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	3.00	HSV	115kPa	3.10	24.29		End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP49

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353123E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.74m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.30	28.44		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.50	HSV	99kPa				Stiff dark grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, sandstone and mudstone.	
▼	0.60-0.70	ES						
	1.00	HSV	91kPa	0.90	27.84		Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.20-1.30	D						
				1.60	27.14		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	
	1.80	HSV	104kPa					2.0
	2.50-2.60	D						
				3.00	25.74		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. Small groundwater seepage encountered at 0.90m bgl.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP50

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353088E, 426037N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.32m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.02		Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	HSV	107kPa				Stiff brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00-1.10	D					
	1.60	HSV	120kPa	1.50	26.82		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
	1.70-1.80	ES					
	2.90	HSV	103kPa	3.10	25.22		End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP51

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353100E, 426066N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.79m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.30	28.49		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.50	HSV	120kPa				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of limestone, quartz, sandstone and mudstone.	
	0.80-0.90	D		0.90	27.89			
	1.00	HSV	120kPa				Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.	1.0
	1.50-1.60	D		1.80	26.99			
	2.00	HSV	120kPa				Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.	2.0
				3.00	25.79		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP52

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353194E, 426097N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.40-0.50	ES		0.30	27.62		Stiff dark brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite and granite.
	0.80	HSV	105kPa	0.62	27.30		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
	1.50-1.60	D					
	2.40	HSV	120kPa				
	2.80-2.90	D					
				3.00	24.92		End of Trial Pit at 3.00m

Remarks

1. Small groundwater seepage encountered at 2.90m bgl.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP53

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353230E, 426107N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.84m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.45	27.40		
				0.65	27.20		Stiff greyish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone.
	1.00	D HSV	94kPa				Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				1.35	26.50		
	2.00	D HSV	123kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	3.00	HSV	111kPa	3.05	24.80		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP54

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353239E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.24m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.40	26.84		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.70	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	85kPa	1.15	26.09		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D HSV	131kPa				
	3.00	HSV	111kPa	3.05	24.19		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP55

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353275E, 425991N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.77m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	26.42		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.70	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subangular to subrounded up to 250mm of sandstone.
	1.00	HSV	97kPa	1.25	25.52		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D HSV	148kPa				
	3.00	HSV	133kPa	3.05	23.72		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP56

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.20		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	109kPa	1.30	27.25		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	114kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	3.00	HSV	139kPa	3.00	25.55		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP57

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353310E, 426073N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.02m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.72		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	HSV	112kPa	1.35	27.67		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	HSV	78kPa				
	2.50	D		2.50	26.52		Firm reddish brown slightly sandy CLAY. Sand is fine to coarse.
	3.00	HSV	62kPa	3.20	25.82		
End of Trial Pit at 3.20m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP58

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353380E, 426073N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.60		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	D					Stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				1.25	27.70		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D		3.00	25.94		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP59

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353335E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.19		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	D					Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	107kPa	1.05	27.49		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	1.50	D					
	2.00	HSV	126kPa				
	3.00	HSV	68kPa	3.20	25.34		
	End of Trial Pit at 3.20m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP60

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353310E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND







DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.30	28.24		
				0.50	28.04		Stiff grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							Stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	105kPa	1.15	27.39		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, quartzite, sandstone and mudstone.
	2.00	D HSV	146kPa				
	3.00	HSV	147kPa	3.05	25.49		
							End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP61

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353420E, 426343N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.15m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.20	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.40	27.75		Light brown very clayey SAND. Sand is fine to coarse.	
	1.00	D HSV	59kPa	0.85	27.30		Firm brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.	1.0
				1.55	26.60		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	2.00	D HSV	116kPa					2.0
	3.00	HSV	132kPa	3.10	25.05			3.0
							End of Trial Pit at 3.10m	
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP62

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353416E, 426303N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.48m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.35	ES		0.35	29.13		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	82kPa	1.30	28.18		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	D HSV	104kPa				Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	128kPa	3.00	26.48		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP63

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353406E, 426275N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.28m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.45	ES		0.45	28.83		MADE GROUND: Grass over dark brown gravelly clayey sand. Sand is fine to coarse of ash. Gravel is fine to coarse, subangular of brick, limestone and sandstone with rare slag, plastic and textile cloth.
	1.00	D HSV	86kPa	1.25	28.03		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse angular to subangular of sandstone and mudstone.
	2.00	D HSV	118kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	126kPa	3.05	26.23		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP64

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353441E, 426249N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.08m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30 0.40	28.78 28.68		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	120kPa	1.20	27.88		Stiff brownish grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.00	D HSV	120kPa				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.90 3.00	D HSV	120kPa	3.00	26.08		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP65

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353441E, 426182N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.88m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.58		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.45	28.43		Stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	1.00	D HSV	120kPa	1.20	27.68		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.00	D HSV	120kPa				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.90	D HSV	120kPa	3.00	25.88		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP66

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353486E, 426203N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.64		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	D		0.45	28.49		Stiff brownish grey slightly gravelly slightly sandy CLAY with occasional fine rootlets and a low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	1.00	HSV	125kPa	1.20	27.74		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.50	D					Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel and low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	2.00	HSV	140kPa				
	2.50	D					
	3.00	D HSV	140kPa	3.10	25.84		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP67

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353521E, 426214N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.13m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30 0.40	27.83 27.73		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	90kPa	1.20	26.93		Very stiff brownish grey slightly gravelly slightly sandy CLAY with occasional fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	2.00	D HSV	120kPa				Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	3.00	D HSV	140kPa	3.00	25.13		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
End of Trial Pit at 3.00m							

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP68

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353496E, 426273N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.09m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	D		0.30 0.40	27.79 27.69		Very stiff brownish grey slightly gravelly slightly sandy CLAY with occasional fine rootlets and low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	1.00	HSV	120kPa	1.20	26.89		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
	1.50	D					Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.00	HSV	140kPa				
	2.50	D					
	3.00	HSV	140kPa				
				3.30	24.79		End of Trial Pit at 3.30m

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP69

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353277E, 426264N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.33m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 05/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.03		Grass over dark brown slightly gravelly slightly sandy CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
				0.50	27.83		Stiff to very stiff brownish grey mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.00	D HSV	120kPa				Very stiff dark brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone. Cobbles are subangular to subrounded of mudstone.
	2.00 2.00-3.00 2.00	D ES HSV	120kPa				
	3.00	HSV	93kPa	3.10	25.23		End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP70

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353303E, 426246N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.98m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone (TOPSOIL).
				0.35	28.63		
				0.50	28.48		Stiff grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone.
							Stiff orange brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	104kPa				
				1.25	27.73		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	134kPa				
	3.00	HSV	129kPa	3.00	25.98		
							End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP71

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353328E, 426228N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.25m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.90		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone (TOPSOIL).
	1.00	D HSV	94kPa	1.65	27.60		Stiff orange brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	114kPa	3.05	26.20		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	114kPa				End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP72

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353368E, 426237N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.20m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.85		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff orange brown slightly sandy gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are subrounded of sandstone.
	1.00	HSV	122kPa	1.15	29.05		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					
	2.00	HSV	140kPa				
	2.50	D					
	3.00	HSV	140kPa	3.05	27.15		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP73

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353289E, 426306N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 03/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.10	ES		0.35	27.59		Grass over brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).	
				0.60	27.34		Firm to stiff grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of mudstone.	
	1.00	D HSV	120kPa				Very stiff brown to dark brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.	1.0
	2.00	D						2.0
				3.00	24.94		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP74

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353227E, 426283N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.27m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 03/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.30	ES		0.44	26.83		Grass over brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).	
	0.60	ES					Very stiff brownish grey mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
	0.80	HSV	120kPa	0.90	26.37		Very stiff brown to dark brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.	1.0
	1.00	D ES						
	1.20	HSV	120kPa					
	2.00	D						2.0
	3.00	HSV	120kPa	3.10	24.17		End of Trial Pit at 3.10m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP75

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353259E, 426234N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.96m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 05/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
	0.30-0.50	ES		0.30 0.50	27.66 27.46		Stiff to very stiff brownish grey mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.
	1.00	D HSV	120kPa				Very stiff brown to dark brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	2.00	D HSV	120kPa				
				3.15	24.82		End of Trial Pit at 3.15m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP76

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353235E, 426206N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.71m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 03/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
				0.40	27.31		Firm to stiff grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of mudstone.
				0.60	27.11		Very stiff brown to dark brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content and occasional sand lenses. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	1.00	D HSV	115kPa				
	2.00	HSV	120kPa				
	2.50	D					
				2.90	24.81		End of Trial Pit at 2.90m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP77

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353194E, 426167N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.95m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

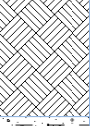
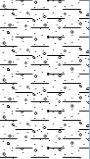
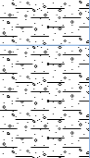
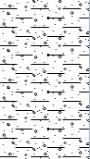
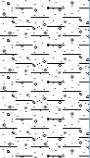
DATES: 03/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone (TOPSOIL).
				0.40	27.55		Very stiff brownish grey mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.00	D HSV	120kPa	1.10	26.85		Very stiff brown to dark brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	2.00	D HSV	120kPa				
	3.30	HSV	120kPa	3.30	24.65		
	End of Trial Pit at 3.30m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP78

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353169E, 426284N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.85m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 05/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.55		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.80	26.05		Very stiff grey slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, angular to subangular of sandstone and mudstone.
	1.00	D					Very stiff brown to dark brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone. Cobbles are subangular to rounded of mudstone.
	2.00	D					
				2.50	24.35		End of Trial Pit at 2.50m

Remarks

1. No groundwater encountered.
2. Land drain encountered at 0.50m bgl running north to south through pit. Land drain reinstated prior to completion.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP79

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353260E, 426234N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.65m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 05/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
	0.30-0.90	ES		0.30	26.35		Very stiff grey slightly gravelly slightly sandy CLAY. Sand is fine to medium. Gravel is fine, angular to subangular of sandstone and mudstone.	
	0.80	HSV	120kPa					
	1.00	D		0.90	25.75		Very stiff brown to dark brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone. Cobbles are subangular to rounded of mudstone.	1.0
	2.00	D HSV	120kPa					2.0
				3.00	23.65		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP80

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353123E, 426238N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.72m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.40	26.32		Light brown very clayey SAND. Sand is fine to coarse.
	1.00	D HSV	86kPa	0.75	25.97		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	95kPa				
	3.00	HSV	109kPa	3.05	23.67		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP81

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353194E, 426238N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.87m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.35	26.52		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
				0.55	26.32		Stiff grey slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone	
	1.00	HSV	84kPa				Stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
				1.30	25.57		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone	
	2.00	HSV	122kPa					2.0
				3.05	23.82			
	3.00	HSV	124kPa					3.0
							End of Trial Pit at 3.05m	4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP82

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353169E, 426143N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.17m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	26.82		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
	1.00	D HSV	100kPa	1.25	25.92		Stiff orange brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	138kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	140kPa	3.00	24.17		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP83

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353239E, 426143N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.06m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.40	27.66		Firm orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	1.00	D HSV	62kPa	1.05	27.02		Firm reddish brown slightly sandy CLAY. Sand is fine to coarse.
	2.00	D HSV	71kPa				Clay becoming stiff from 2.50m bgl.
	3.00	HSV	80kPa	3.20	24.86		End of Trial Pit at 3.20m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP84

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 426167N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.72m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
				0.40	28.32		Firm to stiff orange brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00	D HSV	84kPa	0.95	27.77		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	2.00	D HSV	111kPa					2.0
	3.00	HSV	140kPa	3.00	25.72		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP85

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353310E, 426143N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.18m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
	0.50	HSV	140kPa	0.35 0.55	28.83 28.63		Very stiff to hard grey slightly sandy silty CLAY. Sand is fine to coarse.
	1.00	D					Stiff orange brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	HSV	123kPa	1.45	27.73		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D					
	2.50	HSV	125kPa				
				3.05	26.13		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP86

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353345E, 426132N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.73m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
				0.35	29.38		Stiff grey slightly sandy silty CLAY. Sand is fine to coarse.	
				0.55	29.18		Stiff orange brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00	D HSV	116kPa					1.0
				1.45	28.28		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	2.00	D HSV	132kPa					2.0
	3.00	HSV	140kPa	3.00	26.73		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP87

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353264E, 426097N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.85m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND


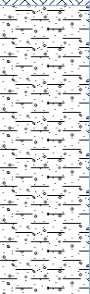
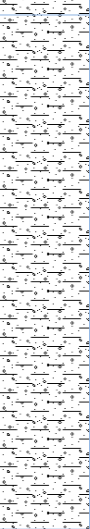
DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.50		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
	0.80-1.00	ES					Stiff orange brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	81kPa	1.35	27.50		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	96kPa				
	3.00	HSV	85kPa	3.05	25.80		
	End of Trial Pit at 3.05m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP88

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353123E, 426097N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.62		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.65	27.28		Stiff grey slightly sandy silty CLAY. Sand is fine to coarse.
	1.00	D HSV	139kPa	1.55	26.38		Stiff orange brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	110kPa	3.00	24.92		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	126kPa	End of Trial Pit at 3.00m			

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP89

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353123E, 426167N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.14m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.35	26.79		Firm orange brown very sandy CLAY. Sand is fine to coarse.
				0.60	26.54		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	86kPa				
	1.60	D HSV	97kPa				
				1.75	25.39		End of Trial Pit at 1.75m

Remarks

1. No groundwater encountered.
2. 6 inch red drain encountered at 1.70m bgl associated with the adjacent dairy. Trial pit terminated and drain reinstated.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP90

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353053E, 426167N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.78m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.43		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
	1.00	D HSV	93kPa	1.15	26.63		Firm to stiff orange brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	117kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	120kPa	3.00	24.78		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Land drain encountered at 1.30m bgl, trial pit extended to avoid damage.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP91

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 426214N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.22m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

JM

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
				0.35	26.87		Firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse of mudstone.	
				0.50	26.72		Stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00	D HSV	108kPa					1.0
				1.75	25.47			
	2.00	D HSV	120kPa				Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	2.0
	3.00	HSV	120kPa	3.00	24.22		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP92

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353036E, 426210N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.56m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.26		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.65	27.91		Firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse of mudstone.
	1.00	D HSV	99kPa	1.35	27.21		Stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	120kPa				Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	120kPa	3.05	25.51		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP93

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353053E, 426238N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.30	27.62		Firm grey very sandy CLAY with rare organic wood. Sand is fine to coarse.
				0.55	27.37		Stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	103kPa				
				1.45	26.47		Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	120kPa				
	3.00	HSV	120kPa	3.05	24.87		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP94

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 426280N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.09m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.79		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
				0.60	28.49		Firm grey slightly sandy CLAY. Sand is fine to coarse.
	0.80-1.00	ES					Stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.20	D		1.35	27.74		Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.20	D		3.00	26.09		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP95

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353177E, 426356N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.57m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 03/09/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					Grass over dark brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.45	HSV	120kPa	0.45	26.12		Stiff to very stiff brownish grey mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone.
	1.00	D HSV	110kPa	1.10	25.47		Very stiff dark brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subrounded of sandstone.
	2.00	D HSV	110kPa				
	3.00	HSV	110kPa	3.05	23.52		End of Trial Pit at 3.05m

Remarks

1. Trial pit sides stable throughout.
2. No groundwater encountered.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP96

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353235E, 426440N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.19m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 05/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.89		Grass over dark brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone (TOPSOIL).
				0.60	26.59		Stiff to very stiff brownish grey mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone.
	1.00	D HSV	120kPa				Very stiff dark brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subrounded of mudstone.
	2.00	D HSV	120kPa				
				3.15	24.04		End of Trial Pit at 3.15m

Remarks

1. Trial pit sides stable throughout.
2. No groundwater encountered.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP97

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353198E, 426440N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.18m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 05/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.88		Grass over dark brown slightly sandy gravelly CLAY with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of sandstone and mudstone (TOPSOIL).
				0.60	26.58		Stiff to very stiff brownish grey mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine, angular to subangular of sandstone and mudstone.
	1.00	D HSV	120kPa				Very stiff dark brown slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subrounded of mudstone.
	2.00	D HSV	120kPa				
	3.00	HSV	120kPa	3.10	24.08		End of Trial Pit at 3.10m

Remarks

1. Trial pit sides stable throughout.
2. No groundwater encountered.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP98

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353112E, 426314N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.25m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.30	28.95		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. (TOPSOIL)	
	1.00	D HSV	101kPa	0.95	28.30		Firm to stiff orangish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	2.00	D HSV	116kPa					
	3.00	HSV	125kPa	3.05	26.20			2.0
							Stiff greyish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	3.0
							End of Trial Pit at 3.05m	4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP99

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353050E, 426382N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.88m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Dark brown gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mixed lithologies. (TOPSOIL)
	0.30-0.70	D		0.30	26.58		Firm dark grey slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of mixed lithologies.
	0.70-1.00	D		0.70	26.18		Firm brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to medium, subangular to subrounded of mixed lithologies.
	1.00-1.20	HSV	99kPa				
	1.00	HSV	99kPa				
	1.20	HSV	99kPa	1.20	25.68		End of Trial Pit at 1.20m

Remarks

1. Hand dug trial pit undertaken due to access restriction through stables.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP100

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353059E, 426415N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Dark brown gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mixed lithologies. (TOPSOIL)
	0.30-1.20	D		0.30	26.64		
	0.80	HSV	63kPa				Soft to firm dark grey mottled orangish brown slightly sandy silty CLAY with occasional organic matter and rootlets. Sand is fine to medium.
	1.20	HSV	49kPa	1.20	25.74		
End of Trial Pit at 1.20m							

1.0
2.0
3.0
4.0
5.0

Remarks

1. Hand dug trial pit undertaken due to access restriction through stables.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP101

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353050E, 426449N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.82m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.25	ES					Dark brown gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of sandstone, mudstone and coal. (TOPSOIL) Firm dark grey mottled orange brown slightly sandy silty CLAY with rare gravel. Sand is fine. Gravel is fine to medium, subangular to subrounded of sandstone, mudstone, limestone and quartzite.
	0.30-0.90	D		0.25	26.57		
	0.50	HSV	109kPa				
	0.70	HSV	76kPa				
	0.90-1.00	D		0.90	25.92		
				1.00	25.82		Dark brown spongy fibrous PEAT. Wood fragments visible.
				1.20	25.62		Grey and brown silty fine SAND.
							End of Trial Pit at 1.20m

Remarks

1. Hand dug trial pit undertaken due to access restriction through stables.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP102

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 426355N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.31m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.35	28.96		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. (TOPSOIL)	
				0.85	28.46		Firm orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00	HSV	89kPa				Stiff brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.50	D						
	2.00	HSV	110kPa					2.0
	2.50	D						
	2.90	HSV	113kPa					3.0
				3.10	26.21		End of Trial Pit at 3.10m	
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP103

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353123E, 426379N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	25.59		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. (TOPSOIL)
	1.00	D HSV	96kPa				Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	112kPa				
	3.00	HSV	127kPa	2.95	22.99		End of Trial Pit at 2.95m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP104

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 426432N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.17m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

JM

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.87		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. (TOPSOIL)
	1.00	HSV	86kPa	1.10	27.07		Firm orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.10-1.25	D		1.25	26.92		Dark brown spongy fibrous PEAT.
	1.50	D					Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	D HSV	92kPa				
	3.00	HSV	110kPa	3.00	25.17		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP105

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353100E, 426460N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.30m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.25	ES		0.25	27.05		Grass over dark brown gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of sandstone and mudstone. (TOPSOIL)
	0.80-1.00	D		0.80	26.50		Firm dark grey mottled orange brown slightly sandy silty CLAY with rare gravel. Sand is fine. Gravel is fine to medium, subangular to subrounded of sandstone, mudstone, limestone and quartzite.
	1.20	HSV	116kPa	1.10 1.20	26.20 26.10		Dark brown spongy fibrous PEAT.
							Firm brown mottled grey slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of sandstone, mudstone, limestone and quartzite.
							End of Trial Pit at 1.20m

Remarks

1. Hand dug trial pit undertaken due to easement restrictions associated with adjacent gas main.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP106

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353126E, 426438N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.44m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.35	27.10		Grass over dark brown slightly gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mudstone. (TOPSOIL)	
				0.95	26.50		Firm orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00-1.20	ES						
	1.00	HSV	96kPa					1.0
	1.20	D						
	2.00	HSV	104kPa					2.0
	2.20	D						
	3.00	HSV	107kPa	3.05	24.40			3.0
							End of Trial Pit at 3.05m	
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP107

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353159E, 426438N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

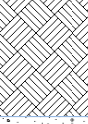
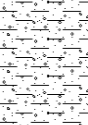
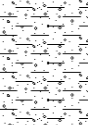
DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.40	28.15		Grass over dark brown slightly gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mudstone. (TOPSOIL)
	1.50	D					Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.50	D		3.10	25.45		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP108

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353159E, 426478N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.96m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	28.61		Grass over dark brown slightly gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mudstone. (TOPSOIL)
	1.00	D HSV	77kPa	1.25	27.71		Firm orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	83kPa				Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	115kPa	3.00	25.96		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP109

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353195E, 426483N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.28m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.93		Grass over dark brown slightly gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mudstone. (TOPSOIL)
	1.00	HSV	87kPa				Firm to stiff orangish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D		1.40	26.88		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	115kPa				
	2.50	D					
	3.00	HSV	120kPa	3.00	25.28		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP110

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353134E, 426321N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.96m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with rootlets. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of mudstone. (TOPSOIL)
				0.35	26.61		Firm to stiff orangish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00-1.20 1.00	ES HSV	98kPa	1.10	25.86		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					
	2.00	HSV	121kPa				
	2.50	D					
	3.00	HSV	122kPa	3.00	23.96		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP111

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352982E, 426308N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.37m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.35	27.02		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	1.00-1.20	ES		0.95	26.42		Firm brown mottled orange very sandy CLAY with sand bands. Sand is fine to coarse.	
	1.00	HSV	74kPa				Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.50	D						
	2.00	HSV	77kPa					2.0
	2.50	D						
	3.00	HSV	97kPa	3.00	24.37		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP112

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352946E, 426320N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.62		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	91kPa	0.90	27.02		Firm brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	118kPa				Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	123kPa	2.90	25.02		End of Trial Pit at 2.90m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP113

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352912E, 426308N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.90m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.40	28.50		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	63kPa	1.15	27.76		Firm brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	68kPa				Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	89kPa	2.95	25.96		End of Trial Pit at 2.95m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP114

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352886E, 426284N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.51m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.16		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	HSV	99kPa	1.35	28.16		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	121kPa				
	2.50	D					
	2.90	HSV	140kPa	2.95	26.56		End of Trial Pit at 2.95m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP115

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352851E, 426273N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.46m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	29.11		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	101kPa	1.40	28.06		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	122kPa				Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	3.00	HSV	127kPa	3.05	26.41		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP116

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352841E, 426308N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.96m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	28.66		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.60	28.36		Firm grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	92kPa	1.35	27.61		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	132kPa				Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	140kPa	3.00	25.96		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP117

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352816E, 426355N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.28m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					MADE GROUND: Grass over grey brown gravelly clayey sand. Sand is fine to coarse with ash. Gravel is fine to coarse, subangular of brick and mudstone (TOPSOIL).
				0.40	27.88		Firm brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	1.00	D HSV	71kPa	1.10	27.18		Stiff brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	109kPa				
	3.00	HSV	122kPa	3.00	25.28		
	End of Trial Pit at 3.00m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP118

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352806E, 426390N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.76m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.41		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	HSV	113kPa				Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.20	D		1.30	26.46		
	2.00	HSV	117kPa				
	2.20	D					
	3.00	HSV	137kPa	3.05	24.71		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP119

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352781E, 426414N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.57m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.22		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	103kPa	1.05	26.52		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	135kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	140kPa	3.05	24.52		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP120

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352816E, 426424N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.20		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	85kPa				Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	103kPa				
	2.50	D					
	3.00	HSV	115kPa	3.10	24.44		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP121

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352817E, 426466N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.27m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.97		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	HSV	74kPa	1.15	26.12		Firm brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	1.50	D					Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	93kPa				
	2.50	D					
	3.00	HSV	140kPa	3.00	24.27		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP122

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352876E, 426461N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.24m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

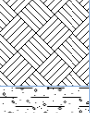
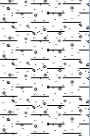
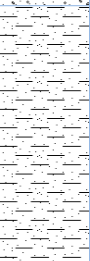
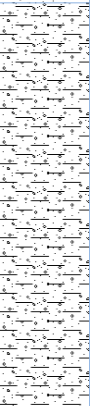
DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.94		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	HSV	52kPa	0.85	26.39		Firm brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D		1.70	25.54		Soft to firm grey very sandy CLAY. Sand is fine to coarse.
	1.50	HSV	54kPa	2.00	24.19		Stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	91kPa	3.05	24.19		End of Trial Pit at 3.05m
	2.50	HSV	107kPa				
	3.00	HSV	115kPa				

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP123

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352947E, 426461N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.61m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	26.26		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	73kPa	1.05	25.56		Firm brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	100kPa				Stiff brownish grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	106kPa	3.00	23.61		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP124

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353016E, 426446N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.84m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.35	26.49		Firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00	HSV	49kPa	0.85	25.99		Stiff grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
				1.10	25.74		Dark brown spongy fibrous PEAT.	
	1.50	D		1.30	25.54		Stiff grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	2.00	HSV	72kPa					2.0
	2.50	D						
	3.00	HSV	109kPa	3.10	23.74			3.0
End of Trial Pit at 3.10m								

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP125

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352992E, 426414N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.01m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.71		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	79kPa	1.10	25.91		Firm brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
				1.25	25.76		Dark brown spongy fibrous PEAT.
	2.00	D HSV	55kPa				Firm greyish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							Clay becoming stiff from 2.50m bgl.
	3.00	HSV	103kPa	3.00	24.01		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP126

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352922E, 426414N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.22m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	84kPa	1.05	26.17		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	103kPa				Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	122kPa	3.05	24.17		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP127

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352851E, 426414N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.40m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.05		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00-1.20 1.00	ES HSV	79kPa	1.30	26.10		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	119kPa				
	2.50	D					
	2.90	HSV	116kPa	2.95	24.45		
	End of Trial Pit at 2.95m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP128

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352886E, 426355N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.27m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.92		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00-1.20	ES		1.25	27.02		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	98kPa				
	1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D					
	2.00	HSV	113kPa				
	3.00	HSV	140kPa	3.00	25.27		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP129

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352912E, 426379N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.40m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.10		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	85kPa	1.30	26.10		Firm to stiff brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	92kPa				
	3.00	HSV	103kPa	3.05	24.35		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP130

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352982E, 426379N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.01m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.35	26.66		Firm brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				0.80	26.21		Dark brown spongy fibrous PEAT.
	1.00	HSV	83kPa	1.00	26.01		Firm greyish brown very sandy CLAY. Sand is fine to coarse.
	1.50	D		1.40	25.61		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	2.00	HSV	113kPa				
	2.50	D					
	3.00	HSV	127kPa	3.10	23.91		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP131

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353018E, 426390N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.00m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 09/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.70		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00-1.20	ES		1.25	25.75		Firm to stiff brownish grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	1.00	HSV	85kPa				
	1.50	D					Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	93kPa				
	2.50	D					
	3.00	HSV	116kPa	3.10	23.90		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP132

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352736E, 426461N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND







DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over black gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine, subangular of coal and sandstone (TOPSOIL).
				0.30	27.25		Firm grey slightly sandy CLAY. Sand is fine to coarse.
				0.55	27.00		Stiff orange brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	79kPa	1.25	26.30		Very stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	115kPa				
	3.00	HSV	124kPa	3.10	24.45		
							End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP133

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352700E, 426238N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.84m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.30-0.45	ES		0.30	26.54		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.50	D		0.45	26.40		
	1.00	HSV	150kPa				Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.20			1.20	25.64		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.50	D					
	2.00	HSV	125kPa				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.50	D					
	3.00	HSV	125kPa	3.00	23.84		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP134

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352671E, 426190N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.12m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.28	ES		0.28	25.84		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.40	25.72		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.70	D					
	1.00	HSV	150kPa	1.20	24.92		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.70	D					
	2.00	HSV	150kPa				
	2.70	D					
	3.00	HSV	150kPa	3.00	23.12		
End of Trial Pit at 3.00m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP135

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352664E, 426108N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.46m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.50	ES		0.30 0.40	26.16 26.06		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	150kPa	1.20	25.26		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	2.00 2.10	B HSV D	100kPa				Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.80 2.90	D B HSV	125kPa	2.90	23.56		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
							End of Trial Pit at 2.90m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP136

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352693E, 426112N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.84m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.54		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50-0.70	ES		0.40	26.44		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.80	D					Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.00	HSV	120kPa	1.20	25.64		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.80	D					
	1.90	B					
	2.00	HSV	120kPa				
	2.80	D					
	2.90	B HSV	120kPa	3.00	23.84		
End of Trial Pit at 3.00m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP137

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352682E, 426075N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.65m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.35		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.45	26.20		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.90	D					
	1.00	B HSV	115kPa	1.20	25.45		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy clayey SILT. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.90	D					
	2.00	B HSV	123kPa				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.90	D HSV	120kPa	3.00	23.65		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP138

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352710E, 426094N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.68m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.35	D		0.30 0.40	26.38 26.28		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	1.00	HSV	125kPa				Stiff to very stiff brown mottled orange slightly gravelly slightly sandy clayey SILT. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.10	B		1.20	25.48		
	1.30	D					Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
				1.70	24.98		Firm to stiff grey to dark grey slightly sandy silty CLAY. Sand is fine to coarse.
	2.00	HSV	115kPa				
	2.10	B					
	2.30	D					
	3.00	HSV	140kPa	3.00	23.68		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP139

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352745E, 426073N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.71m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	B		0.30	26.41		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.80	D		0.45	26.26		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.00	HSV	118kPa	1.20	25.51		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.50	B		1.30	25.41		Firm to stiff grey to dark grey slightly sandy silty CLAY. Sand is fine to coarse.
	1.80	D		1.80	24.91		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.00	HSV	122kPa				
	2.80	D					
	3.00	HSV	110kPa	3.00	23.71		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP140

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352735E, 426037N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.74m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.44		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.45	26.29		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.90 1.00	D B HSV	140kPa	1.20	25.54		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.90 2.00	D B HSV	120kPa				Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.90 3.00	D HSV	130kPa	3.00	23.74		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP141

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352803E, 426027N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.78m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.30-0.45	ES		0.30 0.45	26.48 26.32		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	0.90 1.00	D B HSV	117kPa	1.20	25.58		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.90 2.00	D B HSV	118kPa	2.50	24.28		Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.90 3.00	D HSV	100kPa	3.00	23.78		Firm to stiff grey to dark grey slightly sandy silty CLAY. Sand is fine to coarse.
							End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP142

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352845E, 425993N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.81m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.40	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.40	26.41		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
				0.60	26.21		
	1.00	B		0.90	25.91		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.10	D		1.00	25.81		
		HSV	118kPa	1.20	25.61		Yellowish brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
							Stiff to very stiff brown mottled orange slightly gravelly slightly sandy clayey SILT. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	2.00	B					Stiff to very stiff brown mottled grey slightly sandy CLAY with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.10	HSV	110kPa				
		D					
	2.90	D					
	3.00	HSV	107kPa	3.00	23.81		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP143

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352825E, 426071N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.84m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	26.49		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.80	D					Stiff to very stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.00	HSV	138kPa	1.20	25.64		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	131kPa				
				3.00	23.84		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP144

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352778E, 426106N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.87m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.33	ES		0.33 0.40	26.54 26.47		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.75	D					Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	1.00	HSV	117kPa	1.20	25.67		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.75	D					Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	125kPa				
	2.75	D					
	2.90	HSV	115kPa	3.00	23.87		
End of Trial Pit at 3.00m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP145

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352731E, 426144N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.90m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.28	ES		0.28	26.62		MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
	0.50	D		0.40	26.50		MADE GROUND: Very stiff reworked brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	1.00	HSV	120kPa	1.20	25.70		MADE GROUND: Stiff to very stiff reworked brown mottled orange slightly gravelly slightly sandy clay. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone.
	1.50	D					MADE GROUND: Stiff reworked reddish brown mottled grey slightly gravelly slightly sandy clay. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	B HSV	88kPa	2.20	24.70		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				3.00	23.90		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. 9 inch internal diameter clay pipe (drain) encountered at 2.20m bgl orientated NNE to SSW.
3. Drain reinstated prior to backfilling.
4. Trial pit stayed open for 24 hours and trial pit sides stable throughout.
5. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP146

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352735E, 426179N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.35	HSV	150kPa	0.35 0.45	26.58 26.48		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	1.00	D HSV	130kPa	1.20	25.74		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.00	D HSV	130kPa				Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.90	D HSV	130kPa	3.00	23.94		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP147

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352771E, 426167N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.97m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 18/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.32	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.32	26.65		
				0.45	26.52		Very stiff brownish grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are angular to subangular of mudstone.
	1.00	HSV	147kPa				Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.20	D		1.20	25.77		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	125kPa				
	2.20	D					
	2.90	D					
	3.00	HSV	115kPa	3.00	23.97		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP148

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352781E, 426132N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.82m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

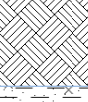
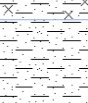
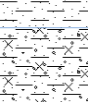
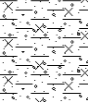
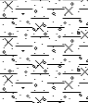
DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
				0.30	27.52			
				0.45	27.37		Firm grey slightly sandy silty CLAY. Sand is fine to coarse. Stiff brown mottled orange very sandy CLAY. Sand is fine to coarse.	
	1.00	D HSV	83kPa	0.85	26.97		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.	1.0
	2.00	D HSV	125kPa					2.0
	3.00	HSV	143kPa	3.00	24.82		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP149

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352838E, 426097N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.31m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.01		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	97kPa	1.05	26.26		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	143kPa				Very stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	3.00	HSV	141kPa	3.00	24.31		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP150

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352887E, 426073N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.98m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND



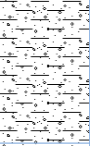
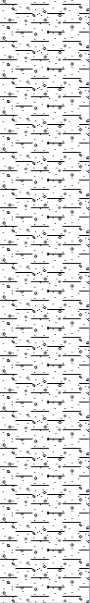
DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.30	26.68		
				0.45	26.52		Firm greyish brown slightly sandy CLAY. Sand is fine to coarse.
							Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	107kPa	1.05	25.92		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							
	2.00	D HSV	139kPa				
	3.00	HSV	131kPa	3.05	23.92		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP151

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352957E, 426073N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.74m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES		0.30	27.44		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.60	D					Firm brown mottled grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00	HSV	128kPa	0.95	26.79		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Cobbles are rounded up to 40mm of sandstone.	1.0
	1.60	D						
	2.00	HSV	139kPa					2.0
	3.00	HSV	131kPa	3.00	24.74		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP152

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352912E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.22m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	27.86		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	128kPa	1.00	27.22		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	1.50	D					
	2.00	HSV	113kPa				
	2.50	D					
	3.00	HSV	79kPa	3.00	25.22		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP153

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352901E, 426009N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.25m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	26.90		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	128kPa	1.40	25.85		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	145kPa				Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	3.00	HSV	147kPa	3.00	24.25		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP154

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352922E, 425993N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.98m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.68		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	105kPa	1.25	25.72		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	85kPa				Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	3.00	HSV	63kPa	3.10	23.88		End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP155

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352954E, 426004N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

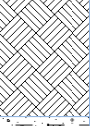
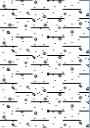
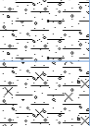
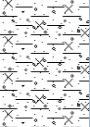
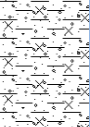
DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.70	D		0.40	26.15		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	HSV	119kPa	1.05	25.50		Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	2.00	D HSV	146kPa				
	2.90	HSV	146kPa	2.95	23.60		Clay becoming firm from 2.50m to 3.10m bgl.
							End of Trial Pit at 2.95m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP156

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352950E, 425970N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.51m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	26.16		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	93kPa	1.15	25.36		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	107kPa				Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	3.00	HSV	110kPa	3.00	23.51		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP157

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353001E, 425930N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.91m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND





DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.30	26.61		
				0.45	26.46		Stiff grey silty sandy CLAY. Sand is fine to coarse.
	0.80-1.00	ES					Firm to stiff brown mottled orange slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	1.00	HSV	125kPa	1.05	25.86		
	1.20	D					Stiff reddish brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of quartz, quartzite, limestone, sandstone and mudstone.
	2.00	HSV	139kPa				
	2.50	D					
	3.00	HSV	136kPa	3.05	23.86		
	End of Trial Pit at 3.05m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP158

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352933E, 425914N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.68m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.38		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.40	26.28		Stiff brownish grey slightly sandy silty CLAY. Sand is fine to coarse.
	1.00	D HSV	141kPa	1.20	25.48		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	B					Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	147kPa				
	2.50	B					
				3.00	23.68		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP159

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352906E, 425945N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.66m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

JM

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.36		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80-1.00	ES					
	1.00	B HSV	100kPa	1.15	25.51		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D					
	2.00	B HSV	135kPa				
	3.00	HSV	131kPa	3.05	23.61		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP160

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352841E, 425956N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.64m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.34		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.50	26.14		Light brown silty SAND. Sand is fine to coarse.
	1.00	D HSV	118kPa	1.25	25.39		Firm to stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	B					
	2.00	D HSV	131kPa				
	3.00	B HSV	89kPa	3.10	23.54		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP161

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352806E, 425967N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.62m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.32		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.45	26.17		Light brown silty SAND. Sand is fine to coarse.
	1.00	D		1.35	25.27		Firm to stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	B					
	2.00	D					
	2.50	B					
				3.10	23.52		End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP162

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352784E, 425984N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.59m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	HSV	83kPa	0.35	26.24		Firm to stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D		1.05	25.54		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	B HSV	99kPa				
	2.00	D					
	2.50	B HSV	130kPa				
				3.00	23.59		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP163

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352912E, 425885N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.57m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.27		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D HSV	91kPa	1.35	25.22		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	B HSV	120kPa				
	2.00	D HSV	139kPa				
	3.00	B HSV	131kPa	3.00	23.57		
							End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP164

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352886E, 425861N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.25		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	B D HSV	129kPa	1.25	25.30		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	B D HSV	139kPa				
	2.10	HSV	120kPa				
	2.50	HSV	90kPa				
	3.00	HSV	148kPa	3.05	23.50		
End of Trial Pit at 3.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP165

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352947E, 425826N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.53m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	HSV	117kPa	0.40	26.13		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.60	D HSV	120kPa				
	1.00	B					
	1.20	HSV	120kPa				
	1.60			1.60	24.93		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.80	D HSV	120kPa				
	2.00	B					
	2.50	HSV	118kPa				
	3.00	HSV	120kPa				
	3.20			3.20	23.33		End of Trial Pit at 3.20m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP166

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352922E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.65m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.50	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.50	B					Light brown silty SAND. Sand is fine to coarse.	
	0.60	HSV	90kPa	0.60	26.05			
	1.00	D HSV	120kPa				Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.50	B HSV	120kPa					
	1.60	HSV	108kPa					
	2.00	HSV	120kPa	2.00	24.65		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	2.0
	2.50	D HSV	120kPa					
	3.00	HSV	120kPa					3.0
				3.30	23.35		End of Trial Pit at 3.30m	4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP167

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352982E, 425709N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.77m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

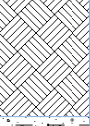
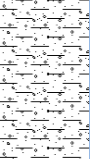
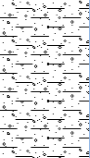
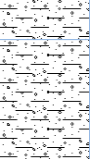
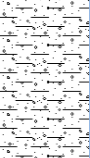
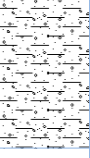




DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.20	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).	
	0.50	D		0.40	26.37		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	0.80	HSV	119kPa					
	1.00	B HSV	110kPa					1.0
	1.20	HSV	120kPa					
	1.50	ES		1.60	25.17			
	1.80	HSV	120kPa					
	2.00	D					Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	2.0
	2.50	B HSV	120kPa					
	3.00	HSV	120kPa	3.00	23.77		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Clay land drain encountered at 0.50m bgl, reinstated prior to backfilling.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP168

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352992E, 425779N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.90m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

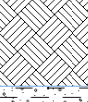
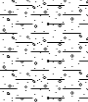
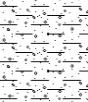
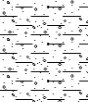
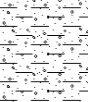
DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.60		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.60	D					Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80	B HSV	93kPa				
	1.50	B D		1.80	25.10		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				3.00	23.90		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP169

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352982E, 425885N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.02m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.40	26.62		MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.
	0.50	B HSV	110kPa				Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80	D HSV	68kPa				
	1.50	HSV	73kPa	1.50	25.52		Stiff reddish brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	120kPa				
	2.50	B HSV	91kPa				End of Trial Pit at 3.10m
	3.00	HSV	120kPa	3.10	23.92		

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP170

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353063E, 425709N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.46m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

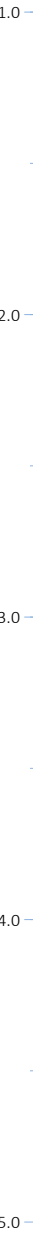
Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼	0.00-0.52	ES	95kPa	0.52	27.94		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).
	0.40	HSV					Firm dark brown to dark grey slightly gravelly slightly sandy spongy fibrous PEAT. Sand is fine to coarse. Gravel is fine to medium, angular to subangular of mudstone.
	0.52-0.75	ES	0.75	27.71		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
	1.00-1.10	D	1.20	27.26		End of Trial Pit at 1.20m	



Remarks

1. Hand dug inspection pit to 1.20m bgl due to access restrictions.
2. Groundwater encountered at 1.00m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP171

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353088E, 425755N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.35m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼	0.00-0.60	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).
	0.20	HSV	80kPa				
	0.60-0.70	D		0.60 0.70	27.75 27.65		
							Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. End of Trial Pit at 0.70m

1.0
2.0
3.0
4.0
5.0

Remarks

1. Hand dug inspection pit to 0.70m bgl due to access restrictions.
2. Groundwater encountered at 0.18m bgl.
3. Hole terminated at 0.70m bgl due to water ingress.
4. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP172

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353119E, 425839N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.12m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

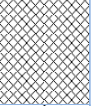
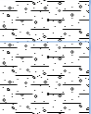
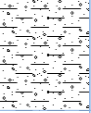
DATES: 29/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.36	ES					MADE GROUND: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of brick, concrete, sandstone and mudstone (TOPSOIL).
	0.50	HSV	120kPa	0.36 0.50	27.76 27.62		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00-1.10	D		1.10	27.02		Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
End of Trial Pit at 1.10m							

Remarks

1. Hand dug inspection pit to 1.10m bgl due to access restrictions.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP173

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353130E, 425769N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.39m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

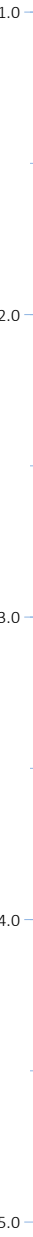
Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.19	ES		0.19	28.20		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).
	0.50	HSV	120kPa				Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00-1.10	D		1.10	27.29		End of Trial Pit at 1.10m



Remarks

1. Hand dug inspection pit to 1.10m bgl due to access restrictions.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP174

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353146E, 425817N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.94m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

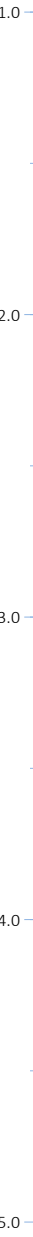
Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.20	ES		0.20	27.74		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).</p> <p>Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p>Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p>
	0.40	HSV	120kPa	0.30	27.64		
	1.00-1.10	D		1.10	26.84		
End of Trial Pit at 1.10m							



Remarks

1. Hand dug inspection pit to 1.10m bgl due to access restrictions.
2. No groundwater encountered.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP175

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353122E, 425885N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.52m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded fine to coarse of sandstone and mudstone (TOPSOIL).
	0.40	HSV	100kPa	0.30 0.40	27.22 27.12		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone. Firm to stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00-1.10	D		1.10	26.42		End of Trial Pit at 1.10m

Remarks

1. Hand dug inspection pit to 1.10m bgl due to access restrictions.
2. Groundwater encountered at 1.10m bgl.
3. Hole backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP176

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353050E, 425743N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.41m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.40	ES		0.40	26.01		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.80-1.00	ES					Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, granite, sandstone and mudstone.
	1.00-1.10 1.00	B HSV	147kPa				
	2.10-2.20 2.10	B HSV	144kPa				
	2.80-3.00	D		3.10	23.31		End of Trial Pit at 3.10m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP177

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353017E, 425755N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.88m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	25.58		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.80-0.90	D					Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, granite, sandstone and mudstone. Cobbles are subrounded of limestone and granite.
	0.90	HSV	117kPa				
	1.00-1.20	ES					
	2.50-2.60	D		2.40	23.48		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
	2.60-2.70	B					
	2.60	HSV	146kPa				
				3.00	22.88		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP178

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353014E, 425820N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.86m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	25.56		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.70-1.00	ES					Stiff reddish brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartz, sandstone and mudstone.
	1.00-1.10 1.00	B HSV	80kPa				
	1.80-1.90 1.80	B HSV	149kPa	1.70	24.16		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to subrounded of quartz, limestone, sandstone and mudstone.
	2.00-2.10	D		2.40	23.46		Stiff brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.
	2.50-2.60	D		3.20	22.66		End of Trial Pit at 3.20m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP179

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353023E, 425852N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.12m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	25.82		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.50-0.60 0.50 0.60-0.80	B HSV ES	108kPa				Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, granite, sandstone and mudstone.
	1.50-1.70	D		2.00	24.12		Stiff brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.
	2.20-2.30	B					
	2.50	HSV	134kPa	2.80	23.32		
	End of Trial Pit at 2.80m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP180

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 425896N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.79m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.40	ES		0.40	25.39		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.70-1.00	ES					Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, granite, sandstone and mudstone.
	0.90-1.00 0.90	B HSV	145kPa				
	1.70-1.80	D		1.80	23.99		Stiff brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse.
	2.00-2.10 2.00	B HSV	139kPa				
	2.40-2.50	D		2.90	22.89		End of Trial Pit at 2.90m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP181

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353063E, 425920N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.30m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.35	ES		0.35	25.95		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.50-0.70	ES		0.50	25.80		Stiff grey slightly sandy silty CLAY with rare gravel. Sand is fine to coarse. Gravel is fine, subangular to rounded of limestone, granite, sandstone and mudstone.
	1.00-1.10	B		1.40	24.90		Stiff brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, quartz, sandstone and mudstone. Cobbles are subrounded to rounded of quartz and limestone.
	2.00-2.10	D					
	2.50-2.60 2.50	B HSV	145kPa	3.00	23.30		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
	End of Trial Pit at 3.00m						

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP182

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353098E, 425932N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.32m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.25	ES		0.28	26.04		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.60-0.70 0.60	B HSV	143kPa				Stiff brown mottled orange and grey slightly gravelly sandy CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, quartzite, sandstone and mudstone. Cobbles are subrounded of limestone and sandstone.
	1.50-1.60	D		1.80	24.52		Stiff reddish brown slightly sandy silty CLAY. Sand is fine to coarse.
	2.00-2.10 2.10	B HSV	120kPa				Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
	2.50-2.60	D		2.50	23.82		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
				3.00	23.32		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP183

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353092E, 425959N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.56m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

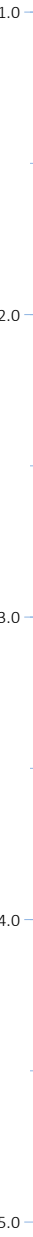
Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.26		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.60-0.70 0.60	D HSV	104kPa	0.70	25.86		Stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to medium, subangular to rounded of limestone, sandstone and mudstone.
							End of Trial Pit at 0.70m



Remarks

1. No groundwater encountered.
2. LV Cable struck at 0.50m bgl. ENW called to repair.
3. Trial pit sides stable throughout.
4. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

TP184

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353022E, 425967N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.20	ES		0.20	26.34		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
	0.50-0.70	ES					Stiff brown mottled grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and mudstone.
	1.30-1.40 1.30	B HSV	120kPa	1.50	25.04		Stiff brown slightly sandy silty CLAY. Sand is fine to coarse.
	2.00-2.10 2.00	B HSV	115kPa				
	2.50-2.70	D		3.00	23.54		End of Trial Pit at 3.00m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP185

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353053E, 426026N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.32m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

PG

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.02		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).
				0.50	25.82		Very stiff brownish grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	1.00	D		1.20	25.12		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.
	2.00	D		2.20	24.12		Stiff to very stiff brown mottled grey slightly sandy silty CLAY with rare gravel and low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
				2.40	23.92		Firm to stiff grey slightly sandy silty CLAY. Sand is fine to coarse.
	3.00	D		3.20	23.12		Stiff to very stiff brown mottled grey slightly sandy silty CLAY with rare gravel and low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.
							End of Trial Pit at 3.20m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP186

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353028E, 426002N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.12m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 16/06/20

Logged

PG

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.27	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
				0.27	25.85			
				0.40	25.72		Very stiff brownish grey slightly gravelly slightly sandy CLAY with frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	
	1.00	D HSV	120kPa				Stiff to very stiff brown mottled grey slightly sandy silty CLAY with rare gravel and low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone. Cobbles are subangular to rounded of mudstone.	1.0
				1.20	24.92			
	2.00	D HSV	120kPa					2.0
	3.00	D HSV	120kPa	3.00	23.12		End of Trial Pit at 3.00m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled within arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP187

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352742E, 426215N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.74m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 22/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	26.44		MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.
	1.00	D HSV	142kPa	1.10	25.64		Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D HSV	77kPa				Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							<i>Clay becoming sandy between 2.55m and 2.70m bgl.</i>
	3.00	HSV	79kPa	3.05	23.70		End of Trial Pit at 3.05m

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP194

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352883E, 426229N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.03m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 02/07/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone. (TOPSOIL)
				0.35	27.68		Firm grey slightly sandy CLAY. Sand is fine to coarse.
	0.70	D HSV	65kPa	0.55	27.48		Firm brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	1.30	HSV	82kPa	1.15	26.88		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				1.30	26.73		End of Trial Pit at 1.30m

1.0
2.0
3.0
4.0
5.0

Remarks

1. Hand dug trial pit due to access restrictions associated with horses / paddocks.
2. No groundwater encountered.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP195

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352938E, 426188N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.20m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 02/07/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.30	27.90		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone. (TOPSOIL)
	1.00	D HSV	68kPa	1.25	26.95		Firm brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
	End of Trial Pit at 1.25m						

Remarks

1. Hand dug trial pit due to access restrictions associated with horses / paddocks.
2. Small seepage of perched water at 0.30m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP205

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352818E, 426346N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.85m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND




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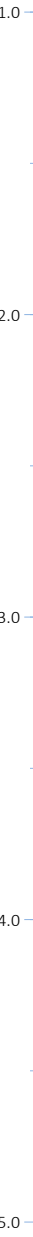
Logged

JM

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.50-1.00	ES		0.30	26.55		MADE GROUND TOPSOIL: Grass over dark brown gravelly clayey sand. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone, brick and rare glass.
				1.15	25.70		MADE GROUND: Brown slightly sandy gravelly clay. Sand is fine to coarse. Gravel is fine to coarse, subangular of brick, ceramic, plastic, and glass / glass bottle.
				1.30	25.55		Firm to stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
End of Trial Pit at 1.30m							



Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP206

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352804E, 426336N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.65m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
▼	0.40-0.80	ES		0.35	26.30		MADE GROUND TOPSOIL: Grass over dark brown gravelly clayey sand. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							MADE GROUND: Brown slightly sandy gravelly clay. Sand is fine to coarse. Gravel is fine to coarse, subangular of brick, ceramic, plastic, metal and glass / glass bottle.
						1.25	25.40
			1.50	25.15	End of Trial Pit at 1.50m		

1.0
2.0
3.0
4.0
5.0

Remarks

1. Small groundwater seepage at 1.20m bgl.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

TP207

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352825E, 426336N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.21m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 10/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.40-0.60	ES		0.30	25.91		MADE GROUND TOPSOIL: Grass over dark brown gravelly clayey sand. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
				0.95	25.26		MADE GROUND: Brown slightly sandy clayey gravel. Sand is fine to coarse. Gravel is fine to coarse, subangular of brick, ceramic, glass with rare plastic and metal. <i>High angular brick cobble content up to 150mm between 0.40m and 0.80m bgl.</i>	
				1.20	25.01		Firm reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone. End of Trial Pit at 1.20m	1.0
								2.0
								3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA01

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353729E, 426046N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 31.93m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 24/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.35	31.58		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
				0.65	31.28		Light brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone.
	1.00	HSV	104kPa				Firm to stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	78kPa	2.00	29.93		End of Trial Pit at 2.00m

Remarks

1. No groundwater encountered.
2. Machine excavated pit to 2.00m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA02

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353511E, 425916N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.52m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 29/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.50	HSV	120kPa	0.30	30.22		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
				1.20	29.32		Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	HSV	120kPa	2.05	28.46		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
							End of Trial Pit at 2.05m

Remarks

1. No groundwater encountered.
2. Machine excavated pit to 2.05m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA03

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353158E, 426060N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.31m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

GRP

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.20	ES		0.20	28.11		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
				0.30	28.01		Stiff grey mottled brown slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of limestone, sandstone and mudstone (POSSIBLY REWORKED).
	0.90-1.00	ES					Stiff dark brown mottled orange and grey slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine, subangular to subrounded of limestone, sandstone and mudstone (POSSIBLY REWORKED).
	1.00	HSV	120kPa				
				1.20	27.11		Stiff reddish brown mottled grey slightly gravelly slightly sandy silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, sandstone and mudstone. Cobbles are subrounded of limestone and quartzite.
	1.50-1.60	D					
	2.00	HSV	118kPa				
				2.90	25.41		End of Trial Pit at 2.90m

Remarks

1. No groundwater encountered.
2. Machine excavated pit to 2.90m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA04

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353337E, 426314N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.70m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.25	28.45		MADE GROUND: Grass over dark brown slightly gravelly clayey sand. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of mudstone, limestone and brick.
				0.70	28.00		MADE GROUND: Brown sandy clayey gravel with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of brick, concrete and limestone. Cobbles are angular of brick.
							Firm to stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	D		1.50	27.20		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
				3.60	25.10		End of Trial Pit at 3.60m

Remarks

1. No groundwater encountered.
2. Machine excavated pit to 3.60m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA05

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353169E, 426214N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.79m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)	
	0.50	HSV	80kPa	0.40	26.39		Stiff orange brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	
				0.85	25.94		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.50	D HSV	112kPa	1.80	24.99		End of Trial Pit at 1.80m	2.0
								3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Soakaway test undertaken between 0.80m and 1.80m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA06

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352638E, 426140N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.23m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.40	ES					MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone .
	0.40-0.50	ES		0.40	25.83		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.50	B D		0.50	25.73		
	1.00	B D		1.20	25.03		Stiff brown mottled orange slightly gravelly slightly sandy clayey SILT. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D		2.05	24.18		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
End of Trial Pit at 2.05m							

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA07

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352769E, 426053N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.30m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 17/06/20

Logged

Checked

PG

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.26	ES		0.26	27.04		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.40-1.20	ES		0.40	26.90		Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	B HSV	125kPa	1.20	26.10		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.30	D					Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	B HSV	90kPa				
	2.30	D					
	2.90	D					
	3.00	HSV	90kPa	3.10	24.20		
End of Trial Pit at 3.10m							

Remarks

1. No groundwater encountered.
2. Machine excavated pit to 3.10m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA08

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352885E, 425931N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.44m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

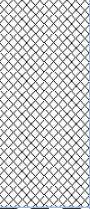
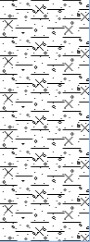
DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.50	ES					MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.
	0.90	D HSV	71kPa	0.70	26.74		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.50	HSV	77kPa	1.50	25.94		End of Trial Pit at 1.50m

Remarks

1. No groundwater encountered.
2. Clay land drain encountered at 0.70m bgl, reinstated prior to completion.
3. Machine excavated to 1.50m bgl.
4. Trial pit sides stable throughout.
5. Trial pit terminated due to presence of drain making it unsuitable for soakaway test.
6. Trial pit backfilled with arisings.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA08A

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352885E, 425931N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.44m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.80	ES					MADE GROUND TOPSOIL: Grass over dark brown slightly gravelly clayey sand with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone.	
	1.00	B HSV	107kPa	0.80	26.64		Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.	1.0
	1.20	D						
	1.50	HSV	120kPa					
	2.00	B D HSV	120kPa					
	2.30	HSV	89kPa					
	2.60	HSV	90kPa					
	3.00	HSV	91kPa	3.10	24.34			3.0
End of Trial Pit at 3.10m								
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Machine excavated to 3.10m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA09

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352957E, 425861N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.55m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.40	28.15		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	0.50	D					Stiff brown mottled orange slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	0.80	B HSV	120kPa				
	1.20	HSV	120kPa				
	1.50	D		1.60	26.95		
	1.80	HSV	119kPa				Stiff reddish brown mottled grey slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	B HSV	120kPa				
	2.20	HSV	120kPa				
	2.80	HSV	120kPa				
				3.20	25.35		End of Trial Pit at 3.20m

Remarks

1. No groundwater encountered.
2. Machine excavated to 3.20m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA10

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353063E, 425991N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.96m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 23/06/20

Logged

Checked

SM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description	
	Depth (m)	Type	Results					
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of sandstone and mudstone (TOPSOIL).	
	0.30-0.80	ES		0.30	28.66		Stiff brown mottled grey slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular to rounded of limestone, quartzite, sandstone and mudstone.	
	1.00	D		0.80	28.16		Stiff to very stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone.	1.0
	1.80	D						2.0
				3.10	25.86		End of Trial Pit at 3.10m	3.0
								4.0
								5.0

Remarks

1. No groundwater encountered.
2. Soakaway Test undertaken at 3.10m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA11

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353002E, 426194N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.28m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 11/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES					Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).
				0.35	27.93		Firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.
				0.50	27.78		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	1.00	D HSV	115kPa				
	1.50	HSV	120kPa				
				1.70	26.58		End of Trial Pit at 1.70m

Remarks

1. No groundwater encountered.
2. Trial pit stable throughout.
3. Soakaway test undertaken at 0.70m-1.70m bgl.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

SA12

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353705E, 426400N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 32.38m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 25/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00-0.30	ES		0.35	32.03		Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).
	1.00	D		1.15	31.23		Firm to stiff brown mottled orange slightly sandy gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
	2.00	D		2.50	29.88		Stiff reddish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							End of Trial Pit at 2.50m

Remarks

1. No groundwater encountered.
2. Soakaway Test undertaken at 2.50m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL01

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353599E, 425923N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 30.28m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.30 0.35	29.98 29.94		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone (TOPSOIL).</p> <p>Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p style="text-align: center;">End of Trial Pit at 0.35m</p>
							1.0
							2.0
							3.0
							4.0
							5.0

Remarks

1. No groundwater encountered.
2. Plate load test undertaken at 0.35m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL02

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353314E, 425817N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 28.72m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

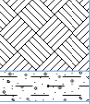
DATES: 25/06/20

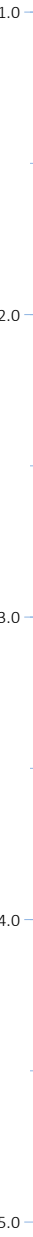
Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.35	HSV	113kPa	0.25 0.35	28.47 28.37		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Firm brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p>End of Trial Pit at 0.35m</p>



Remarks

1. No groundwater encountered.
2. Plate load test undertaken at 0.35m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL03

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353261E, 425972N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.92m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

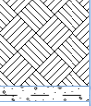
DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.35	HSV	82kPa	0.30 0.35	27.62 27.57		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p style="text-align: center;">End of Trial Pit at 0.35m</p>

1.0
2.0
3.0
4.0
5.0

Remarks

1. No groundwater encountered.
2. Plate Load Test undertaken at 0.35m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL04

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353144E, 426048N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.19m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 26/06/20

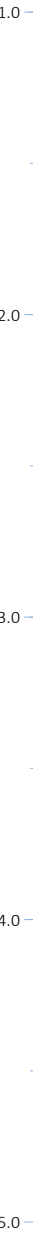
Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.40	HSV	79kPa	0.30 0.40	26.89 26.79		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of sandstone and mudstone (TOPSOIL).</p> <p>Stiff brown mottled orange slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of sandstone and mudstone.</p> <p>End of Trial Pit at 0.40m</p>



Remarks

1. No groundwater encountered.
2. Plate Load Test undertaken at 0.40m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL06

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353350E, 426255N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 29.86m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 15/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.35	D HSV	131kPa	0.25 0.35	29.61 29.51		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of mudstone (TOPSOIL).</p> <p>Stiff greyish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p style="text-align: center;">End of Trial Pit at 0.35m</p>



Remarks

1. No groundwater encountered.
2. Plate load test undertaken at 0.35m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL07

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353179E, 426222N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 26.70m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 12/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.35	26.35		Grass over dark brown slightly gravelly clayey SAND with fine rootlets. Sand is fine to coarse. Gravel is fine coarse, subangular of mudstone (TOPSOIL)
	0.60	D HSV	56kPa	0.60	26.10		Stiff greyish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
							End of Trial Pit at 0.60m

1.0
2.0
3.0
4.0
5.0

Remarks

1. No groundwater encountered.
2. Plate load test undertaken at 0.60m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
 D = Disturbed Sample
 B = Bulk Sample
 LB = Large Bulk Sample
 U = Undisturbed Sample
 UT = Undisturbed Thin Wall Sample
 SPT = Standard Penetration Test
 PID = Photoionization Detector (ppm)
 PPM = Part Per Million
 HSV = Hand Shear Vane



Trial Pit Log

No.

PL08

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 353153E, 426327N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 25.54m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND

DATES: 08/06/20

Logged

JM

Checked

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.40	25.14		Grass over dark brown slightly gravelly clayey SAND. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of mudstone. (TOPSOIL)
				0.60	24.94		Stiff orangish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.
End of Trial Pit at 0.60m							

1.0
2.0
3.0
4.0
5.0

Remarks

1. No groundwater encountered.
2. Trial pit sides stable throughout.
3. Trial pit backfilled with arisings upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane



Trial Pit Log

No.

PL09

Sheet 1 of 1

PROJECT NO: C4259

CO-ORDS: 352911E, 425883N

Hole Type

TP

PROJECT NAME: THE LANES, PENWORTHAM

LEVEL: 27.16m OD

Scale

1:25

CLIENT: TAYLOR WIMPEY / HOMES ENGLAND


DATES: 23/06/20

Logged

Checked

JM

JMC

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m OD)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.30	HSV	95kPa	0.25 0.30	26.91 26.86		<p>Grass over dark brown slightly gravelly clayey SAND with frequent fine rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded of brick, sandstone and mudstone (TOPSOIL).</p> <p>Stiff brown mottled orange slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse, subangular of mudstone.</p> <p>End of Trial Pit at 0.30m</p>

1.0
2.0
3.0
4.0
5.0

Remarks

1. No groundwater encountered.
2. Plate load test undertaken at 0.30m bgl.
3. Trial pit sides stable throughout.
4. Trial pit backfilled upon completion.

ES = Environmental Sample
D = Disturbed Sample
B = Bulk Sample
LB = Large Bulk Sample
U = Undisturbed Sample
UT = Undisturbed Thin Wall Sample
SPT = Standard Penetration Test
PID = Photoionization Detector (ppm)
PPM = Part Per Million
HSV = Hand Shear Vane

APPENDIX C

Geotechnical Testing Results



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 22/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

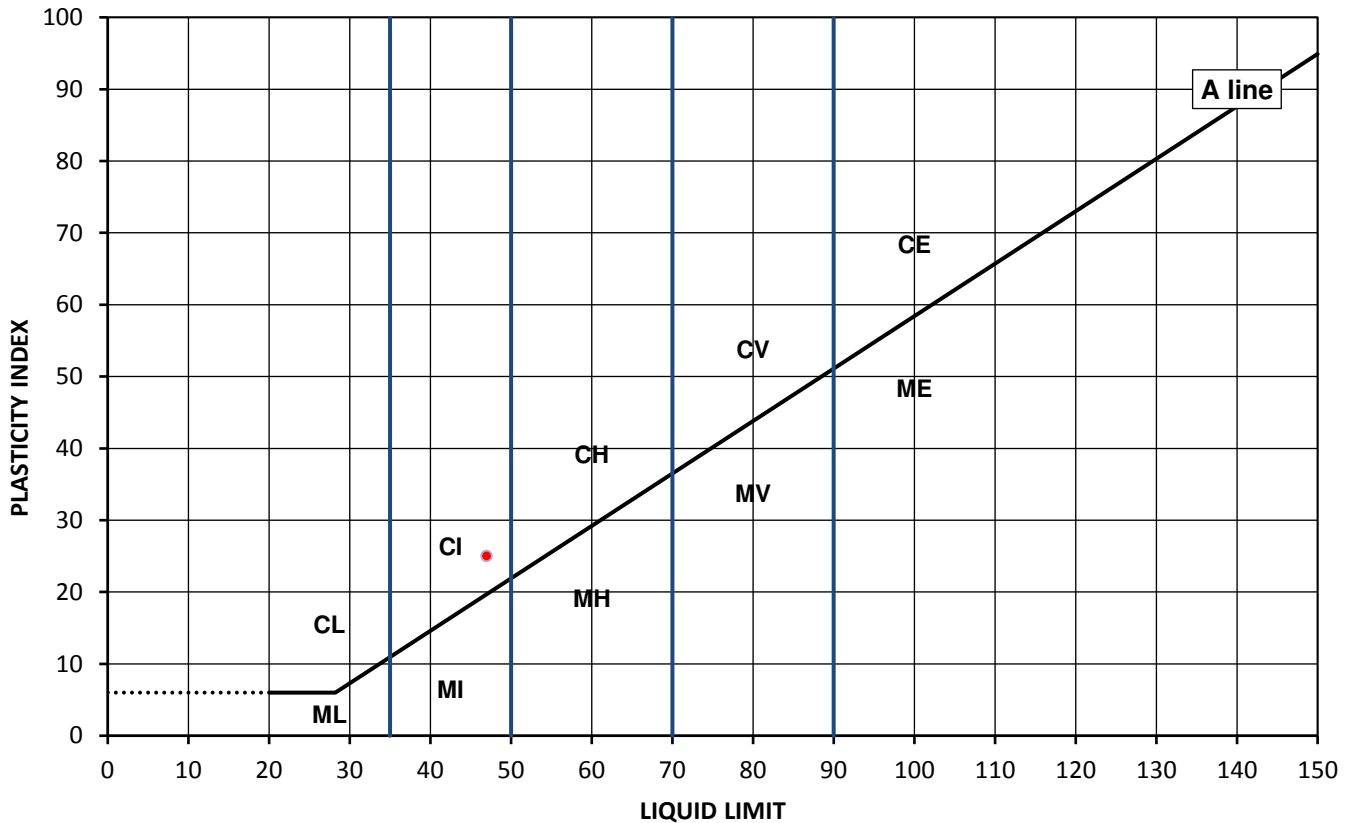
Test Results:

Laboratory Reference: 1555149
Hole No.: WS01
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
24	47	22	25	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 22/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

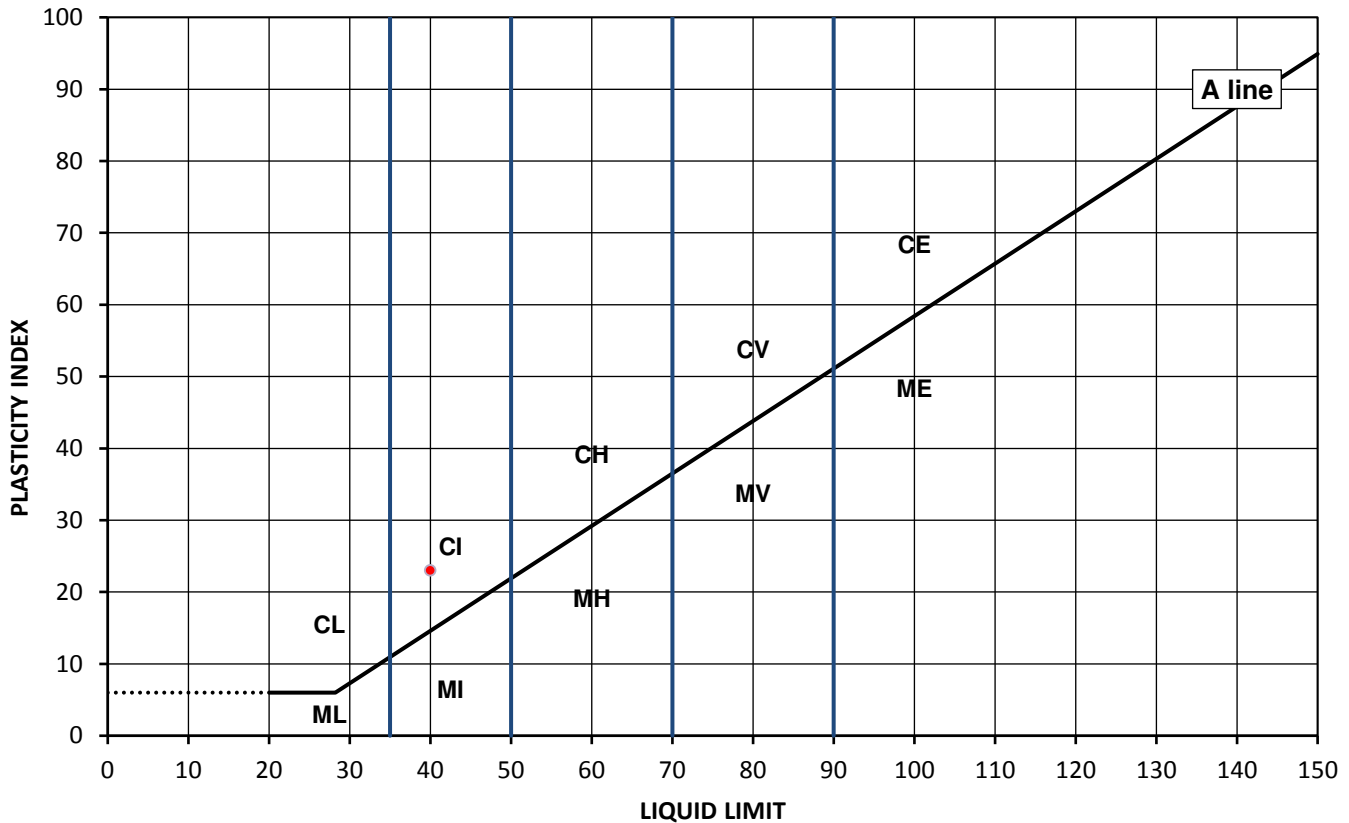
Test Results:

Laboratory Reference: 1555150
Hole No.: WS02
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.75
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	40	17	23	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 22/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

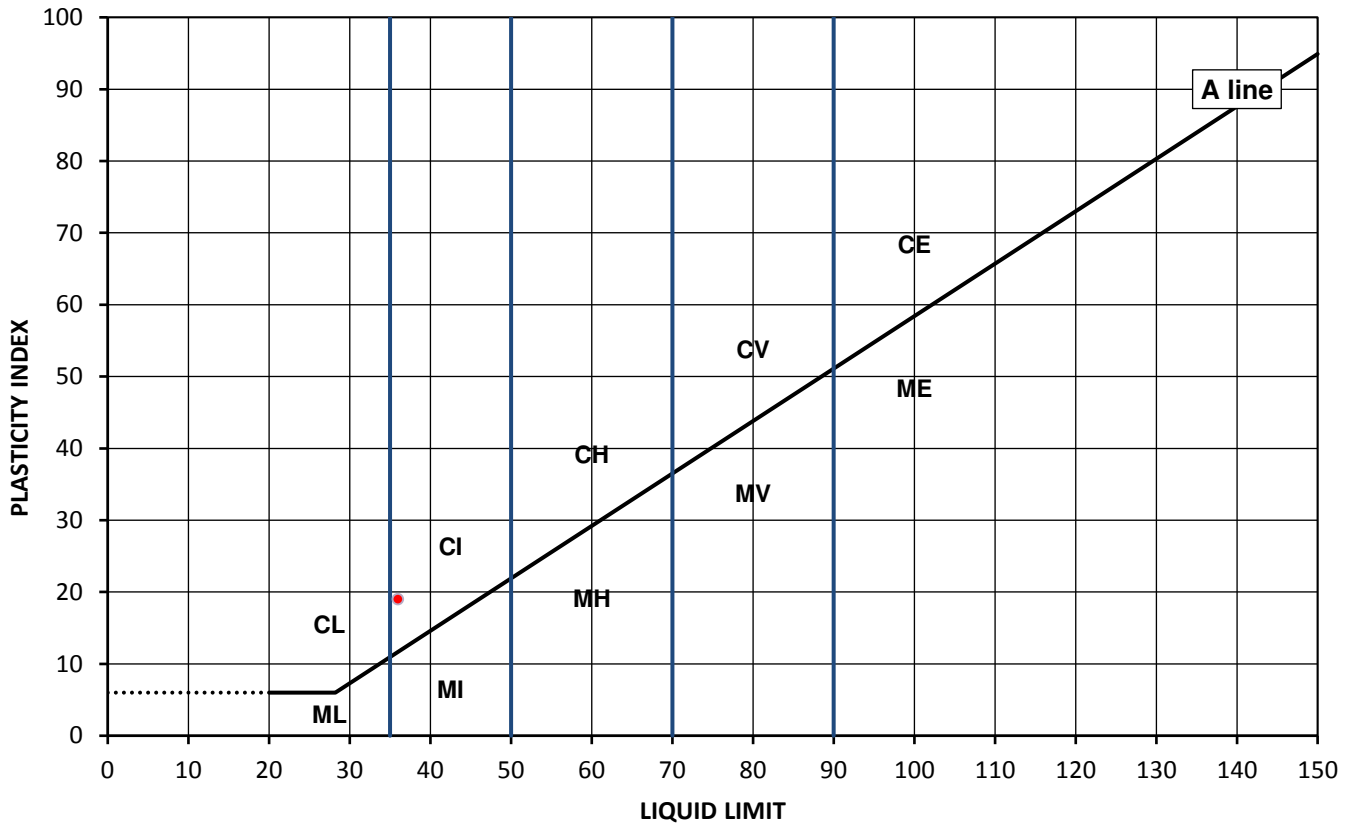
Test Results:

Laboratory Reference: 1555151
Hole No.: WS03
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	36	17	19	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 23/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

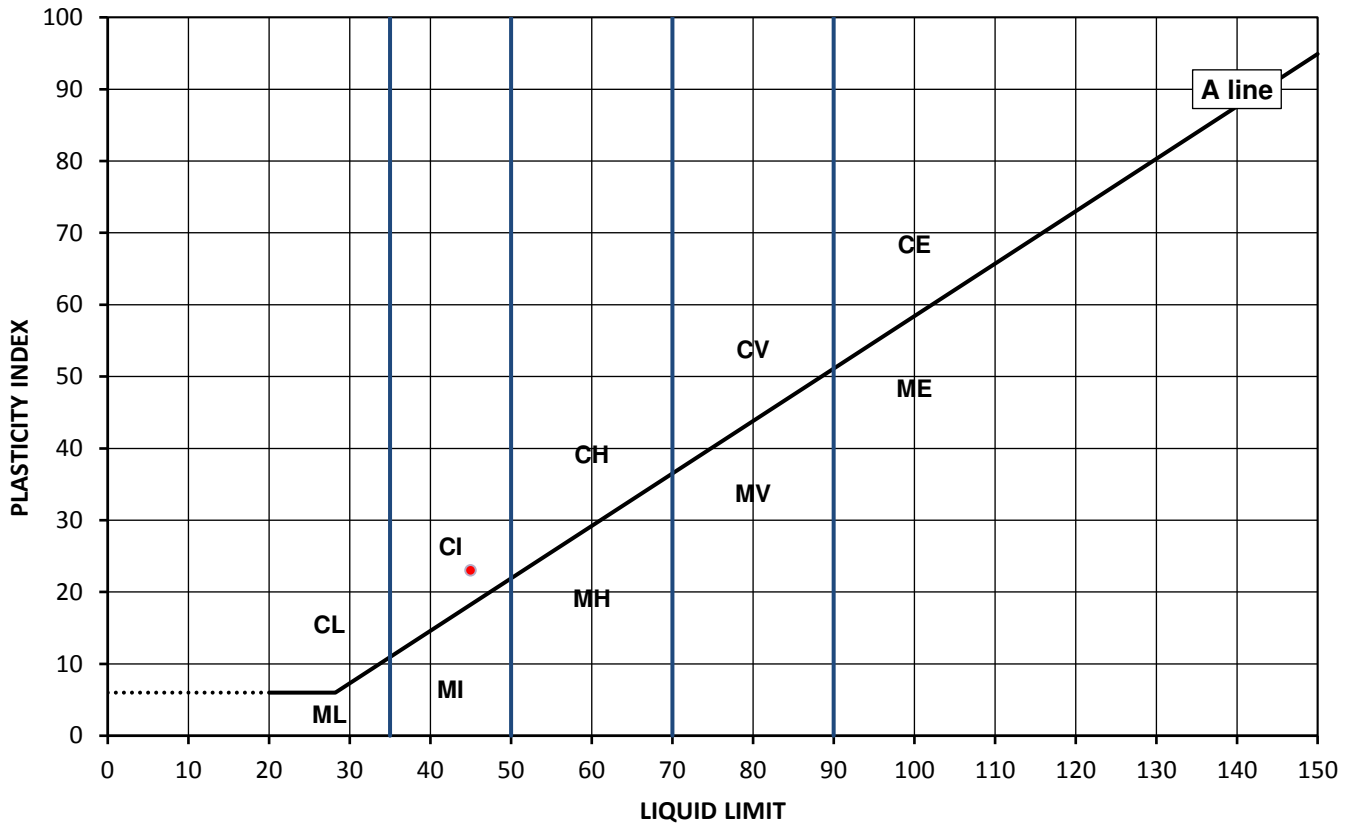
Test Results:

Laboratory Reference: 1555152
Hole No.: WS06
Sample Reference: Not Given
Soil Description: Brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 3.00
Depth Base [m]: 3.45
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	45	22	23	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 22/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

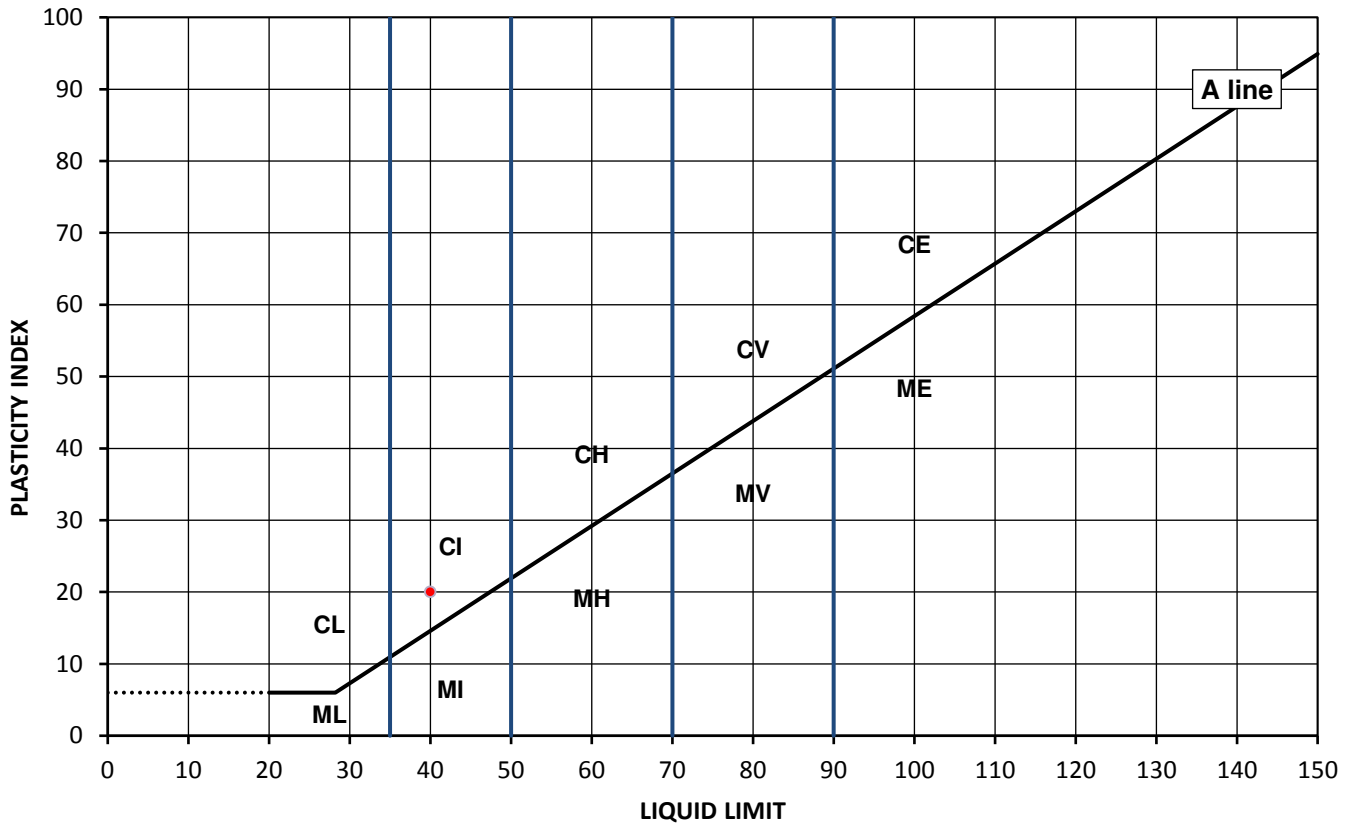
Test Results:

Laboratory Reference: 1555153
Hole No.: WS07
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	40	20	20	96



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 22/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

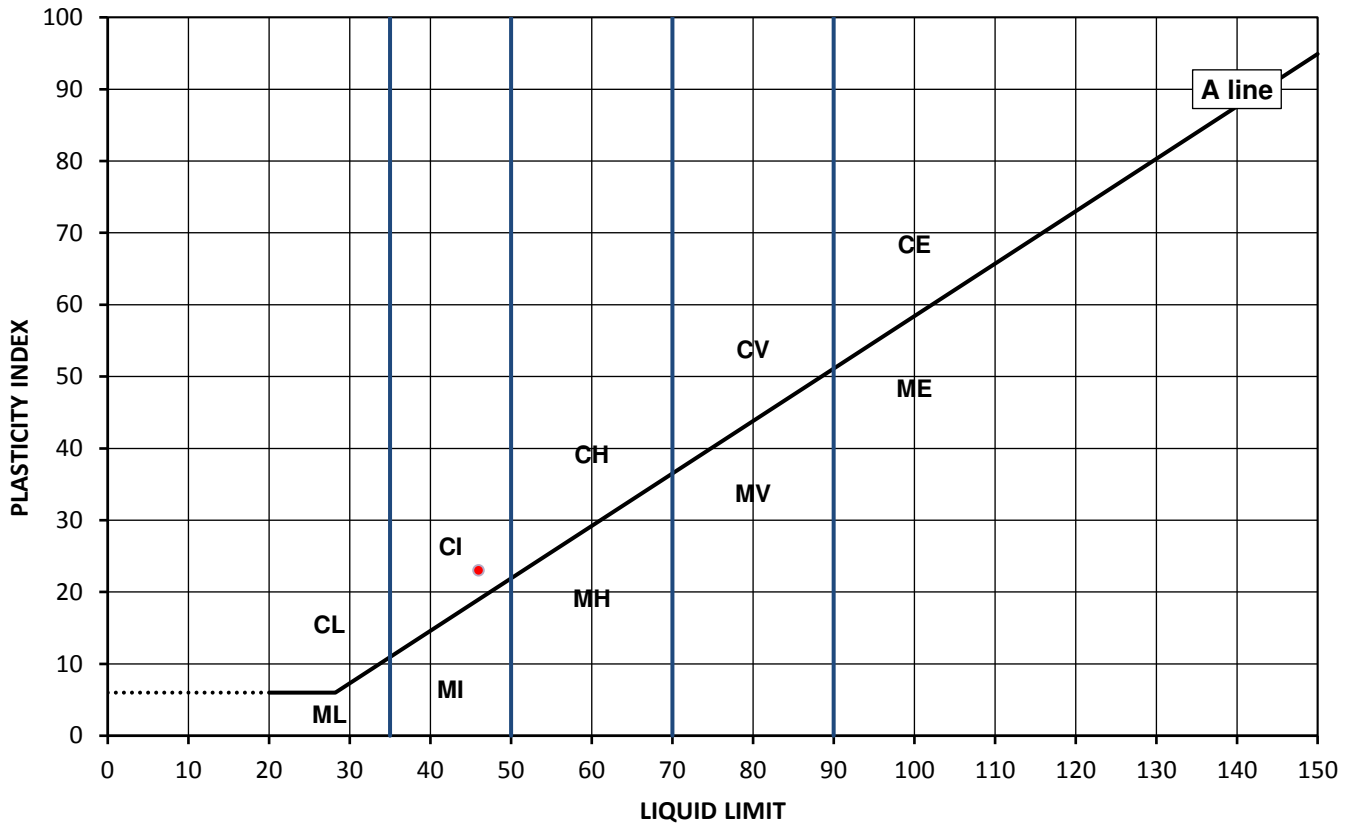
Test Results:

Laboratory Reference: 1555154
Hole No.: WS09
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	46	23	23	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 23/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

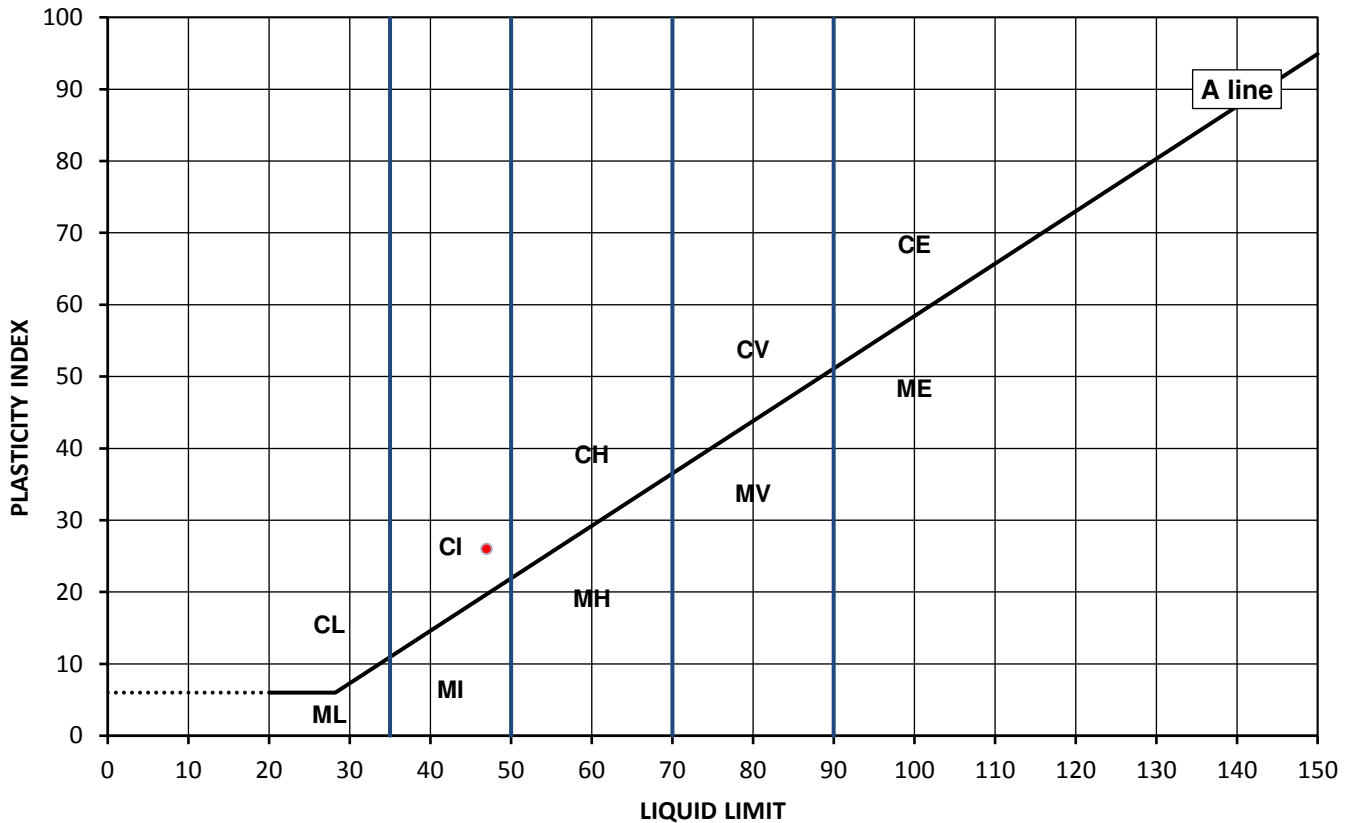
Test Results:

Laboratory Reference: 1555155
Hole No.: WS10
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	47	21	26	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 29/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

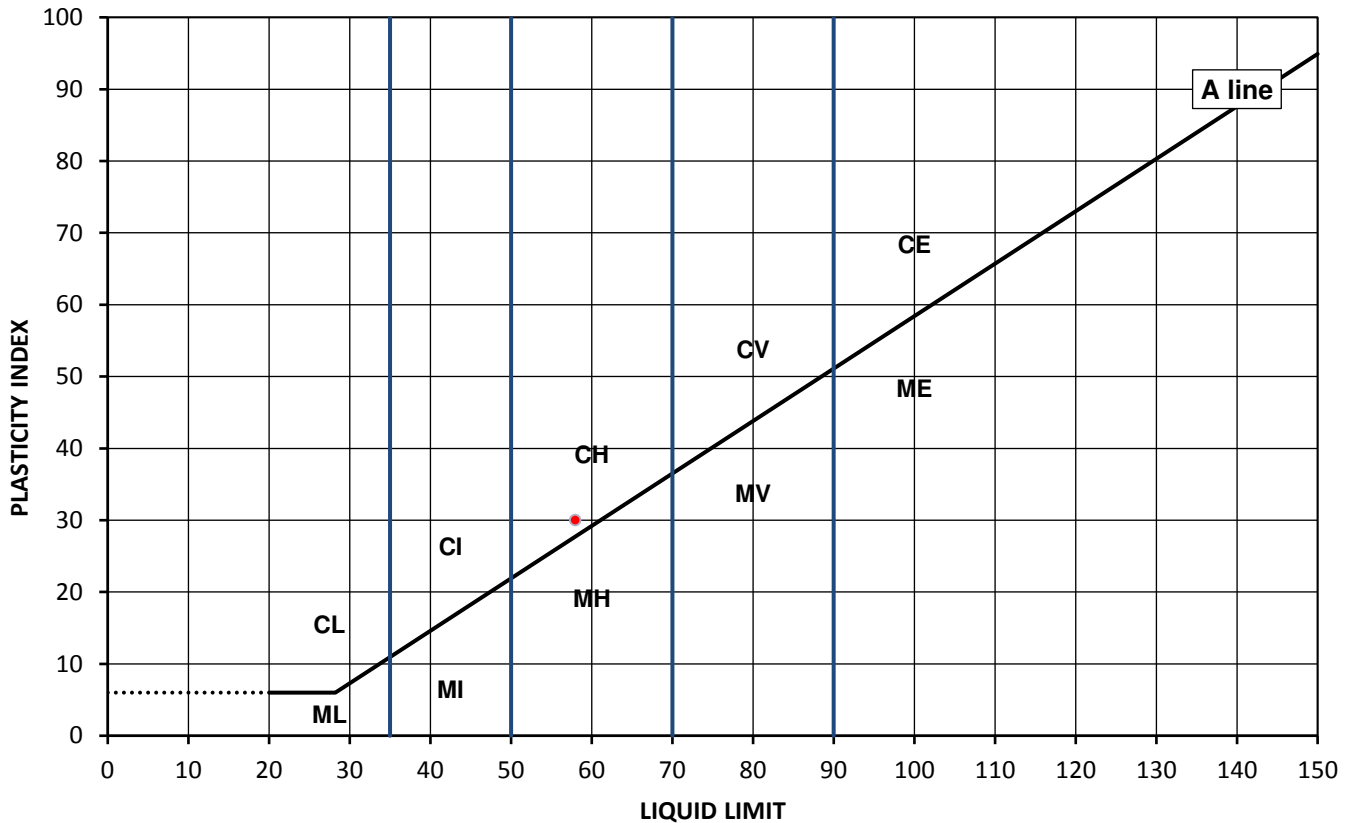
Test Results:

Laboratory Reference: 1555156
Hole No.: TP17
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
25	58	28	30	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 26/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

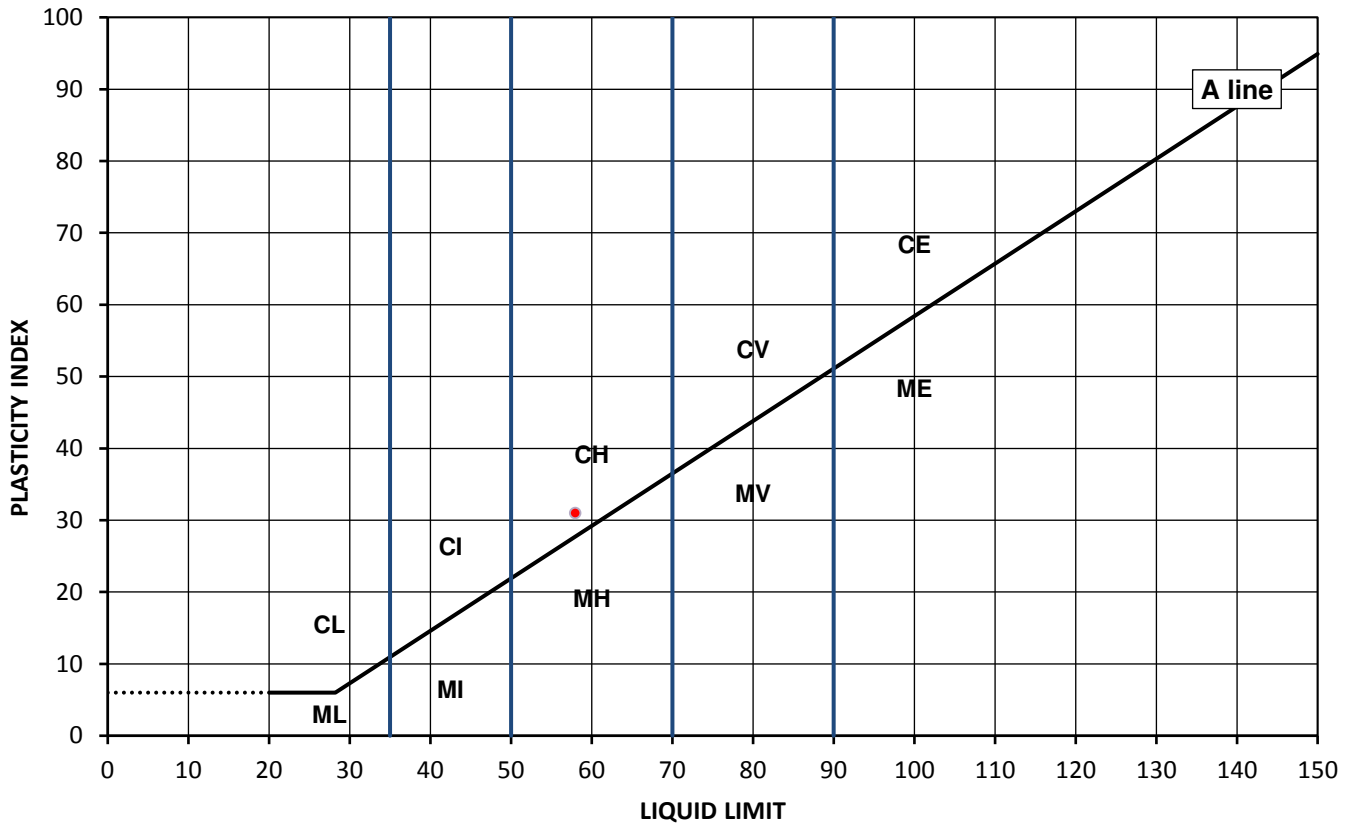
Test Results:

Laboratory Reference: 1555157
Hole No.: TP19
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
29	58	27	31	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 1, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client Reference: C4259
 Job Number: 20-18146
 Date Sampled: 22/06 - 29/06/2020
 Date Received: 06/07/2020
 Date Tested: 15/07/2020
 Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %	
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3		
			m	m														
1555156	TP17	Not Given	1.50	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	25		100	58	28	30					
1555157	TP19	Not Given	2.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	29		100	58	27	31					
1555149	WS01	Not Given	2.00	2.45	D	Brown slightly sandy CLAY	Atterberg 1 Point	24		100	47	22	25					
1555150	WS02	Not Given	1.20	1.75	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	17		99	40	17	23					
1555151	WS03	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		98	36	17	19					
1555152	WS06	Not Given	3.00	3.45	D	Brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	15		97	45	22	23					
1555153	WS07	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		96	40	20	20					
1555154	WS09	Not Given	2.00	2.45	D	Brown slightly sandy CLAY	Atterberg 1 Point	19		100	46	23	23					
1555155	WS10	Not Given	1.20	1.65	D	Brown slightly sandy CLAY	Atterberg 1 Point	18		100	47	21	26					

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
 PL Deputy Head of Geotechnical Section
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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 22/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

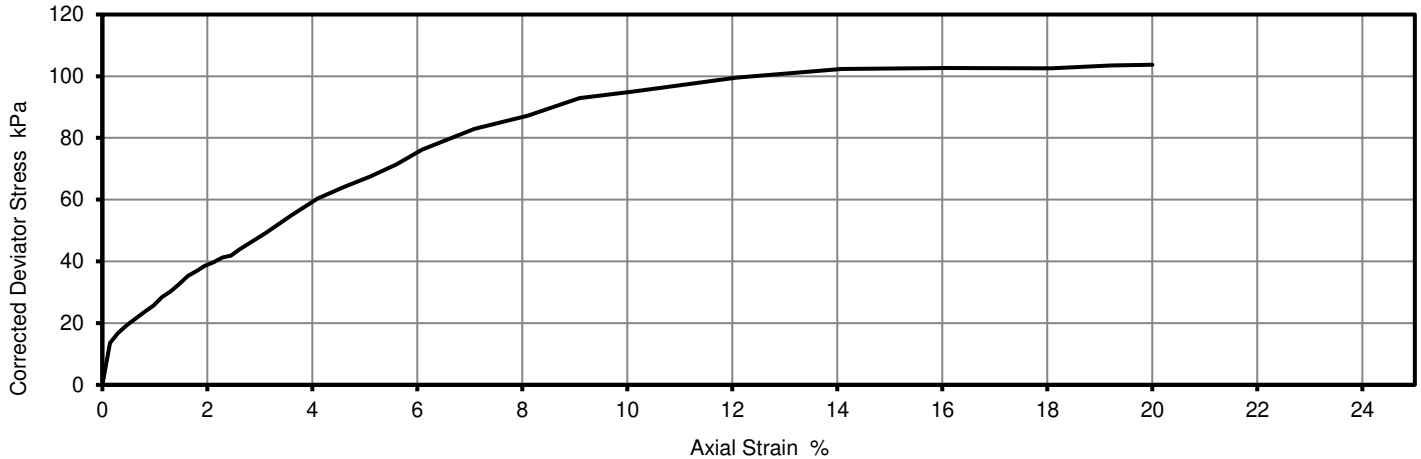
Laboratory Reference: 1555139
Hole No.: BH01
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.30
Depth Base [m]: 3.75
Sample Type: U

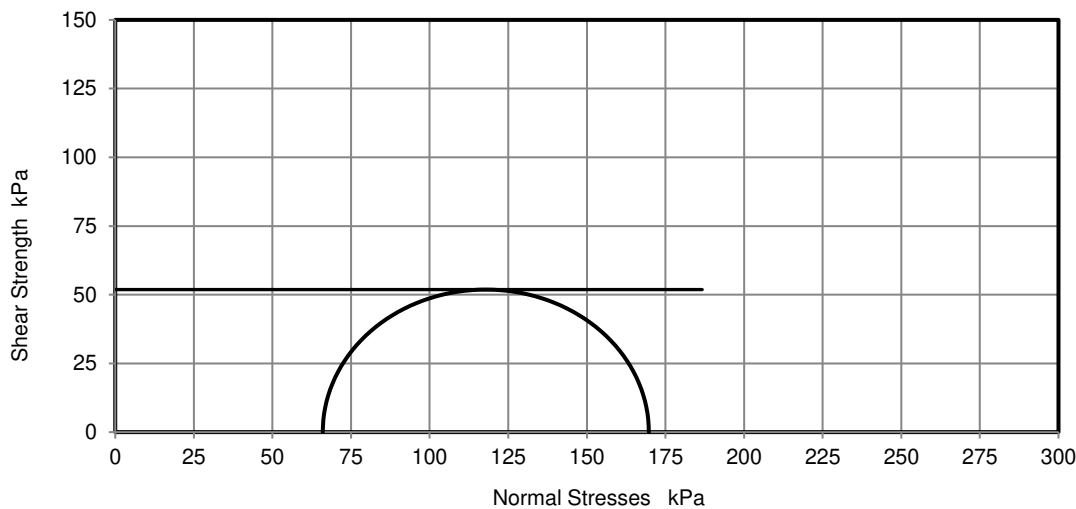
Test Number	1
Length	201.61 mm
Diameter	100.71 mm
Bulk Density	1.98 Mg/m ³
Moisture Content	30 %
Dry Density	1.52 Mg/m ³
Membrane Correction	0.98 kPa

Rate of Strain	1.98 %/min
Cell Pressure	66 kPa
Axial Strain at failure	19.8 %
Deviator Stress, (σ ₁ - σ ₃) _f	104 kPa
Undrained Shear Strength, c _u	52 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.26 mm

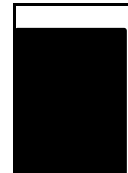
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377.
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Remarks:

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Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

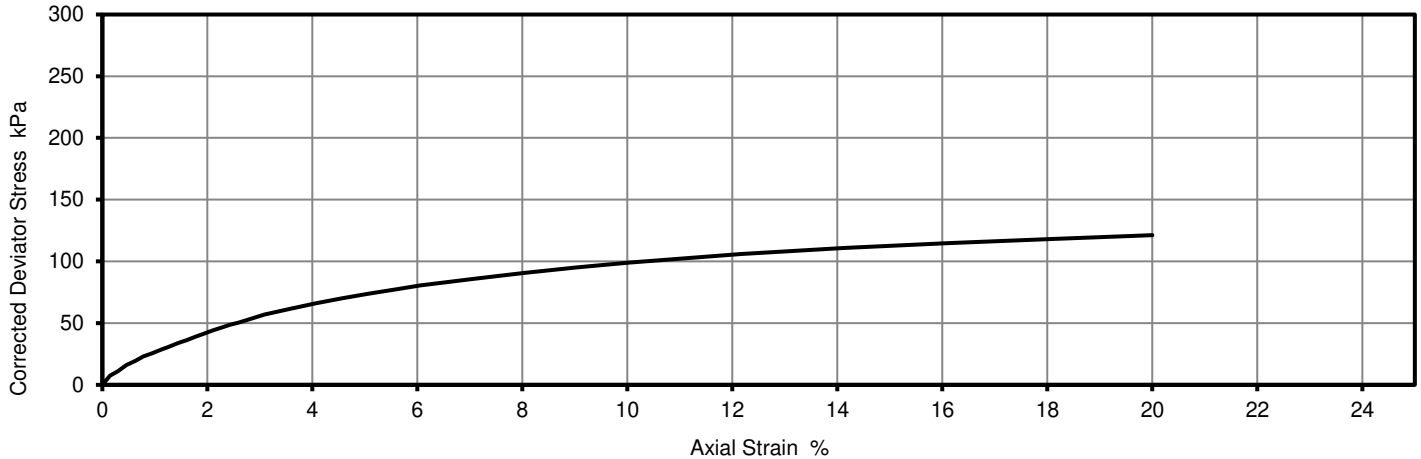
Laboratory Reference: 1555140
Hole No.: BH01
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 7.00
Depth Base [m]: 7.45
Sample Type: U

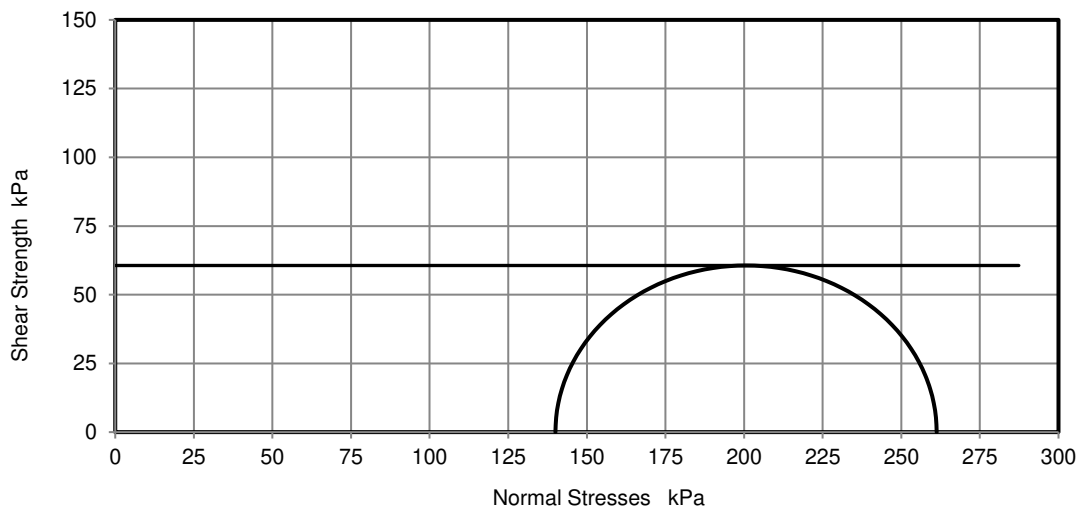
Test Number	1
Length	202.68 mm
Diameter	102.25 mm
Bulk Density	2.20 Mg/m ³
Moisture Content	17 %
Dry Density	1.88 Mg/m ³
Membrane Correction	1.04 kPa

Rate of Strain	1.97 %/min
Cell Pressure	140 kPa
Axial Strain at failure	19.6 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	121 kPa
Undrained Shear Strength, c_u	61 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.28 mm

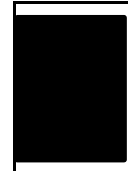
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

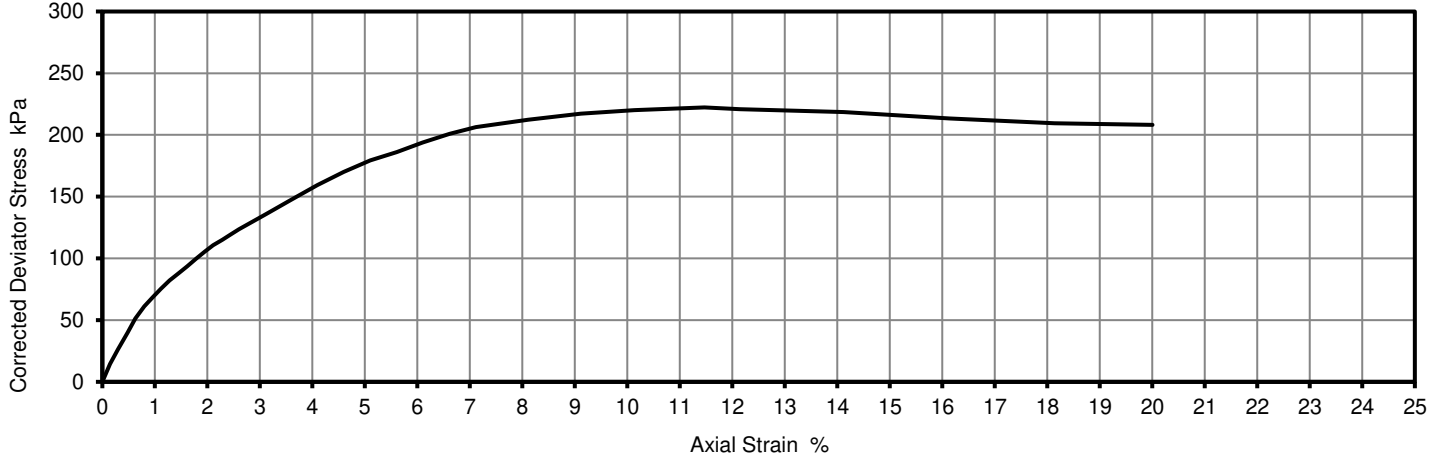
Laboratory Reference: 1555141
Hole No.: BH02
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: U

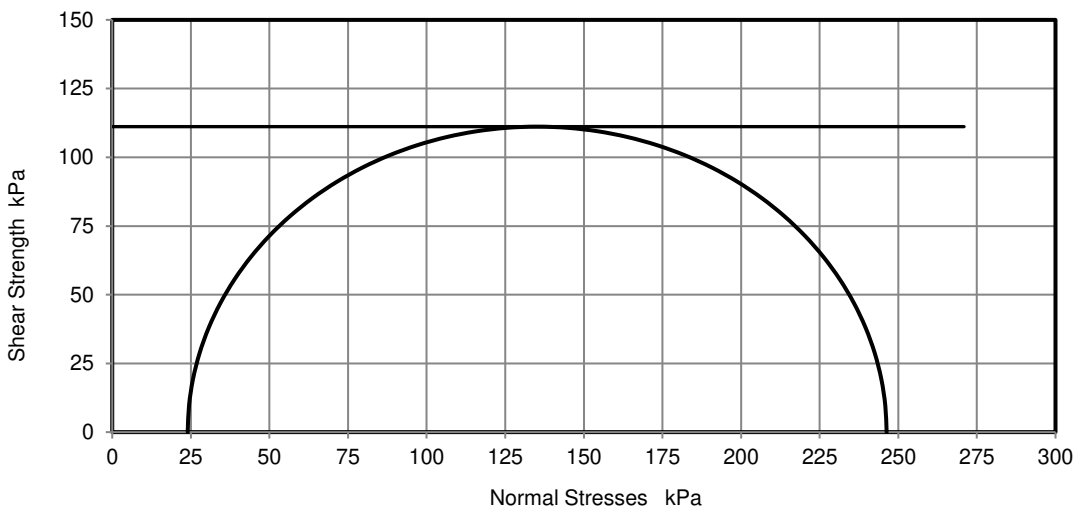
Test Number	1
Length	198.42 mm
Diameter	100.87 mm
Bulk Density	2.06 Mg/m ³
Moisture Content	26 %
Dry Density	1.63 Mg/m ³
Membrane Correction	0.71 kPa

Rate of Strain	2.00 %/min
Cell Pressure	24 kPa
Axial Strain at failure	11.5 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	222 kPa
Undrained Shear Strength, c_u	111 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.29 mm

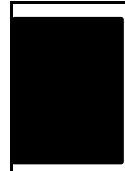
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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TEST CERTIFICATE

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Triaxial Compression

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Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

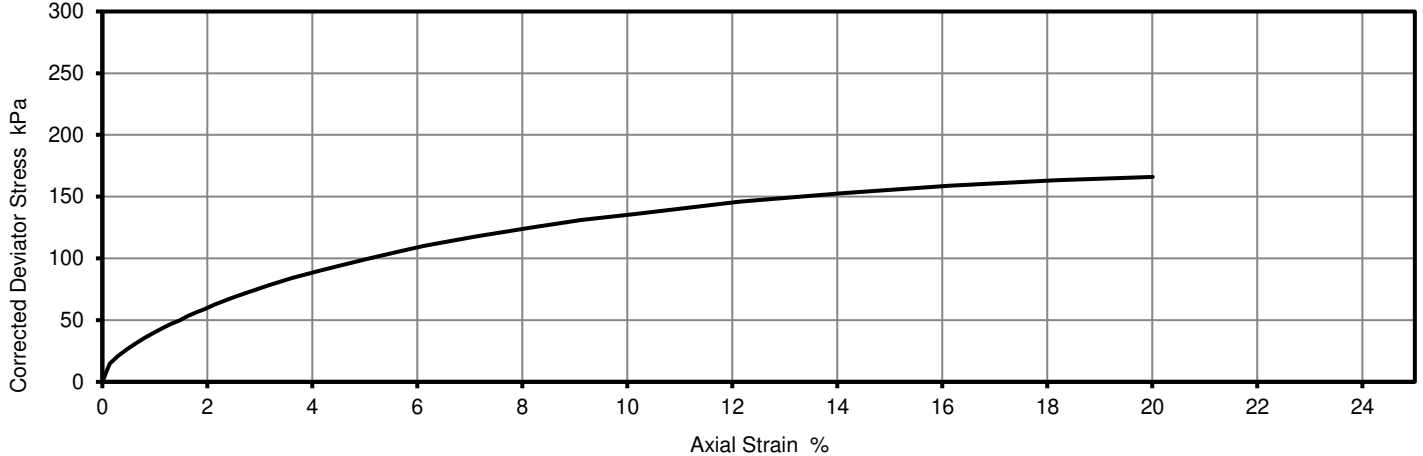
Laboratory Reference: 1555142
Hole No.: BH02
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 5.50
Depth Base [m]: 5.95
Sample Type: U

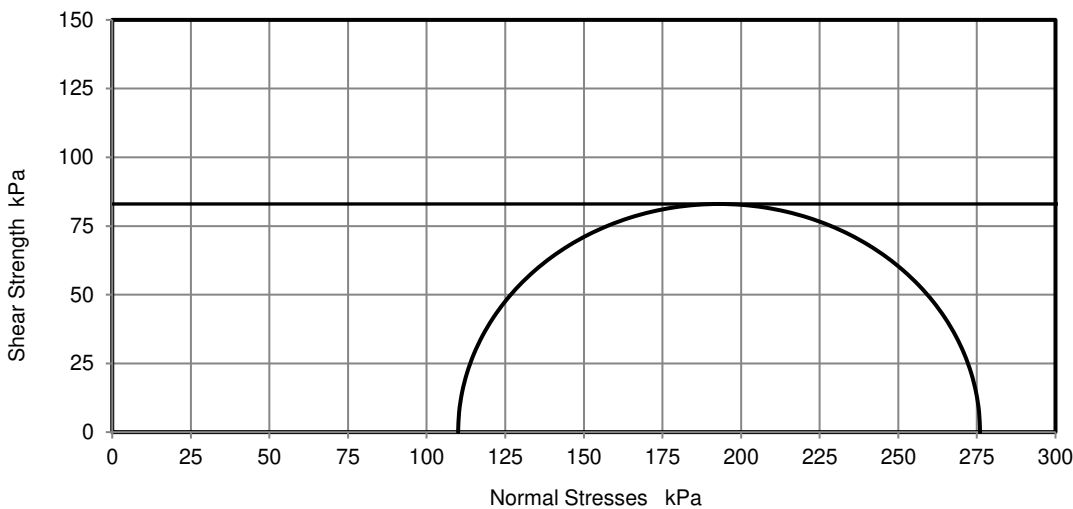
Test Number	1
Length	200.33 mm
Diameter	100.26 mm
Bulk Density	2.28 Mg/m ³
Moisture Content	16 %
Dry Density	1.97 Mg/m ³
Membrane Correction	1.19 kPa

Rate of Strain	2.00 %/min
Cell Pressure	110 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	166 kPa
Undrained Shear Strength, c_u	83 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.31 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



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Unconsolidated Undrained

Triaxial Compression

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Client Reference: C4259
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Test Results:

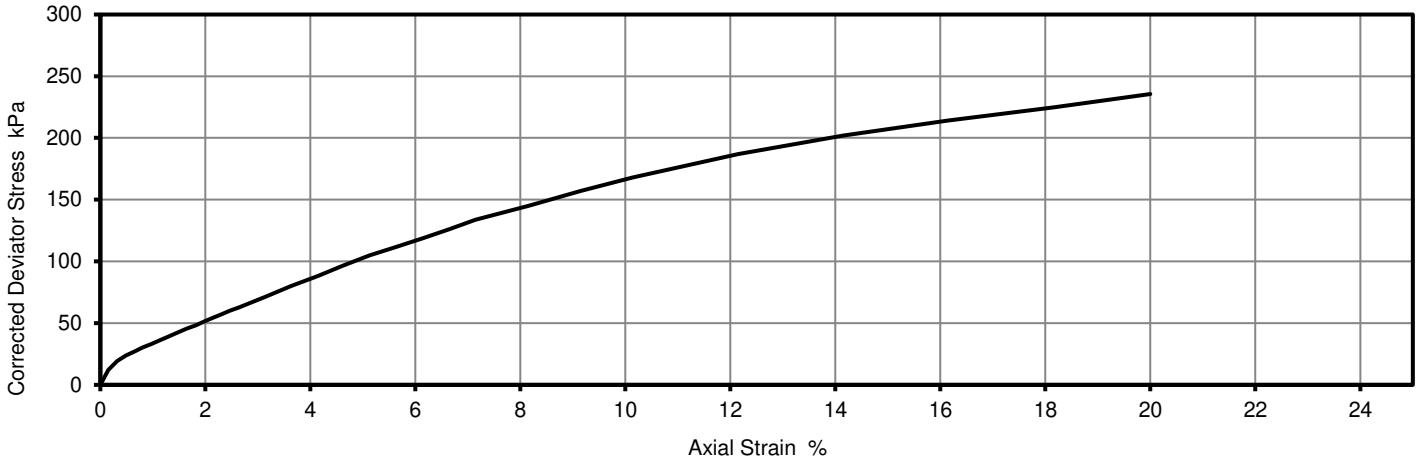
Laboratory Reference: 1555143
Hole No.: BH04
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.20
Depth Base [m]: 3.65
Sample Type: U

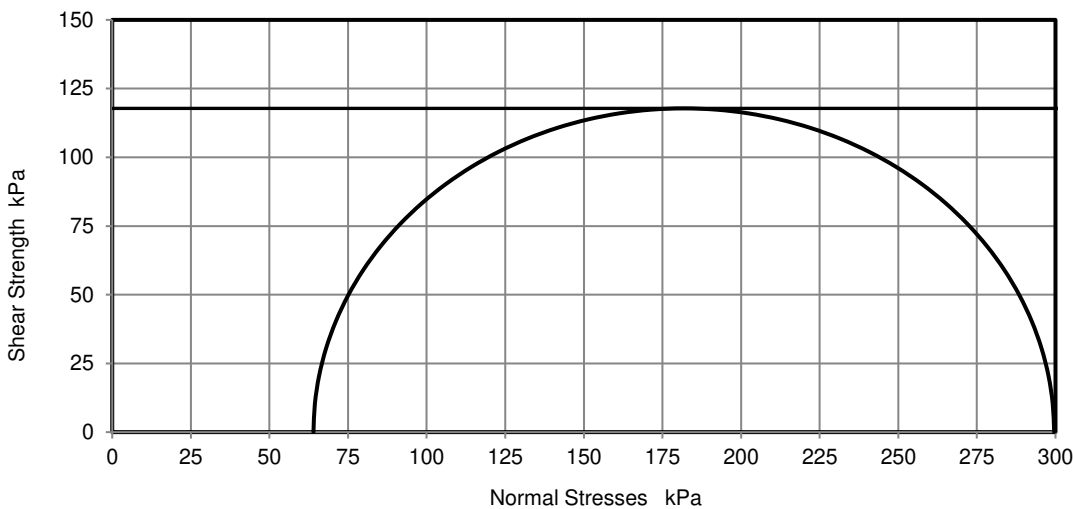
Test Number	1
Length	198.72 mm
Diameter	101.14 mm
Bulk Density	2.19 Mg/m ³
Moisture Content	19 %
Dry Density	1.85 Mg/m ³
Membrane Correction	1.03 kPa

Rate of Strain	2.00 %/min
Cell Pressure	64 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	236 kPa
Undrained Shear Strength, c_u	118 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.27 mm

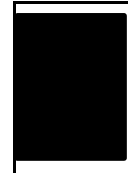
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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Triaxial Compression

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Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

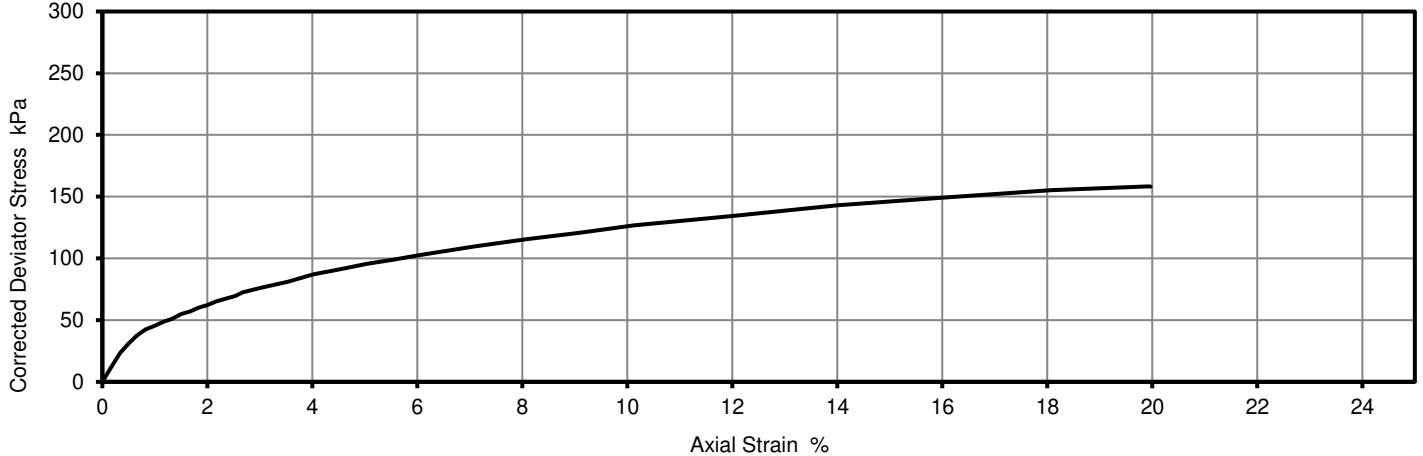
Laboratory Reference: 1555144
Hole No.: BH04
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 8.30
Depth Base [m]: 8.75
Sample Type: U

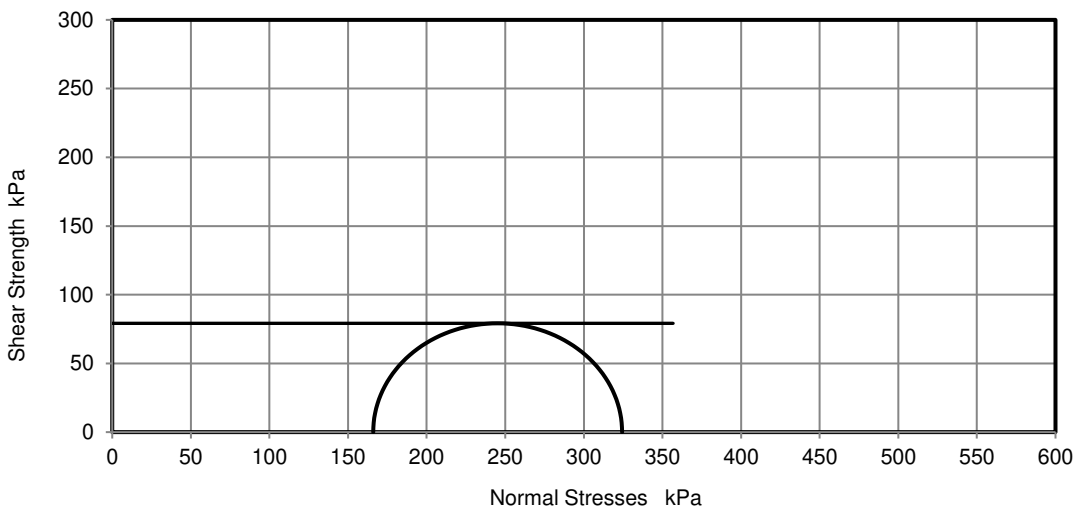
Test Number	1
Length	140.03 mm
Diameter	69.31 mm
Bulk Density	2.20 Mg/m ³
Moisture Content	16 %
Dry Density	1.90 Mg/m ³
Membrane Correction	1.27 kPa

Rate of Strain	2.00 %/min
Cell Pressure	166 kPa
Axial Strain at failure	19.9 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	158 kPa
Undrained Shear Strength, c_u	79 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.23 mm

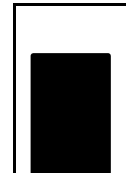
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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Job Number: 20-18146
Date Sampled: 24/06/2020
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Sampled By: NS

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Test Results:

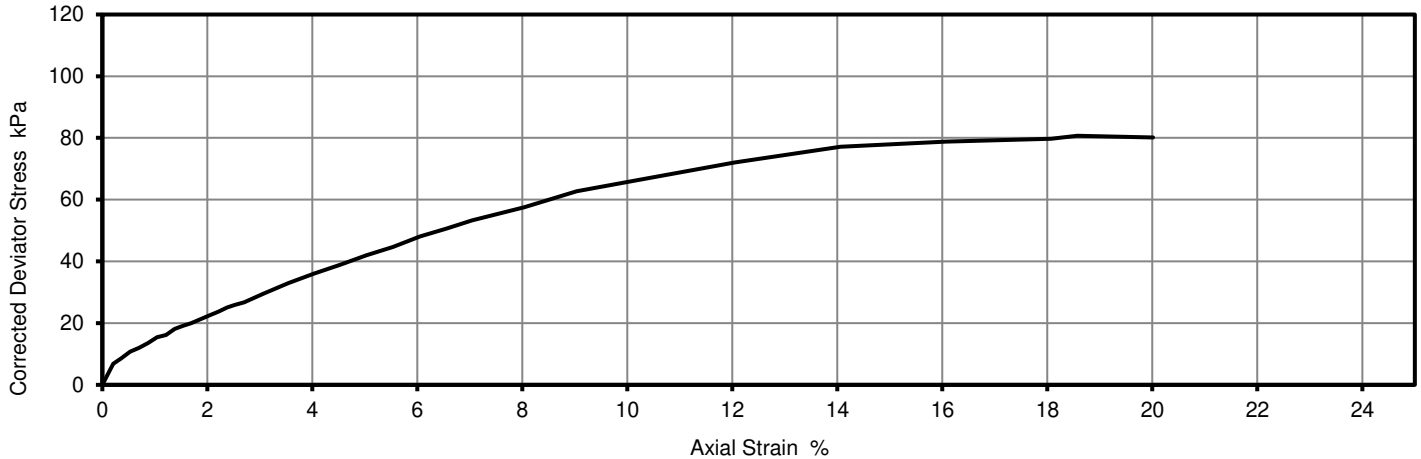
Laboratory Reference: 1555145
Hole No.: CP01
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 4.00
Depth Base [m]: 4.45
Sample Type: U

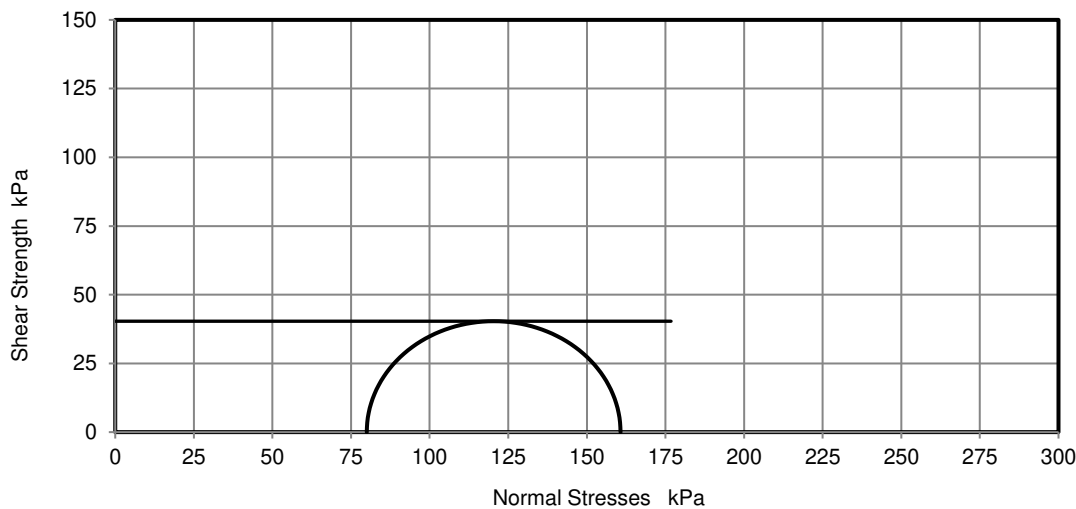
Test Number	1
Length	199.16 mm
Diameter	101.72 mm
Bulk Density	1.97 Mg/m ³
Moisture Content	29 %
Dry Density	1.53 Mg/m ³
Membrane Correction	1.07 kPa

Rate of Strain	2.00 %/min
Cell Pressure	80 kPa
Axial Strain at failure	18.6 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	81 kPa
Undrained Shear Strength, c_u	40 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.30 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



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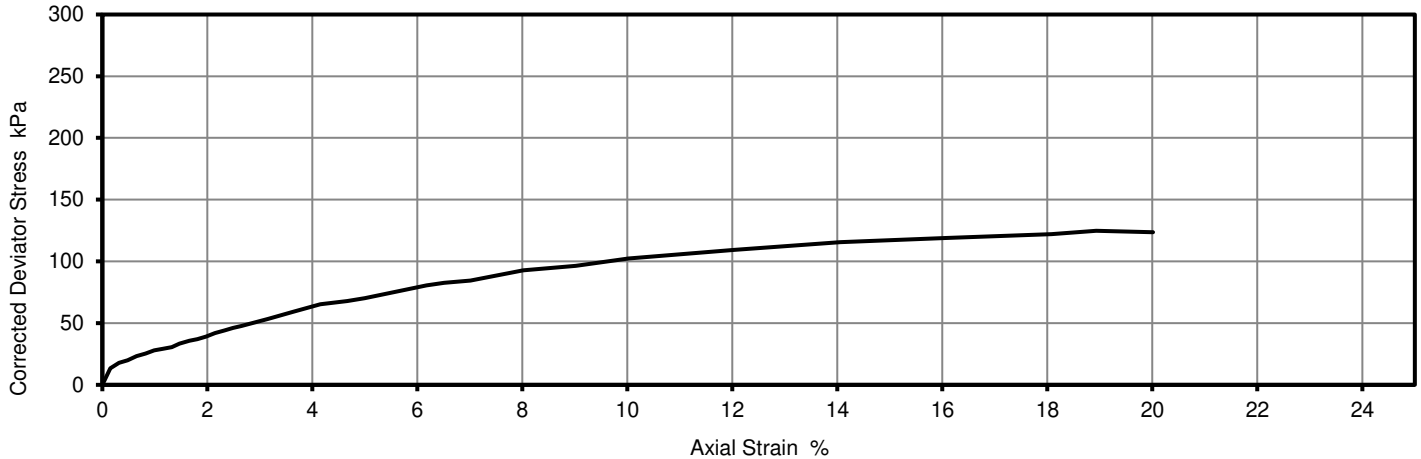
Laboratory Reference: 1555146
Hole No.: CP01
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 7.50
Depth Base [m]: 7.95
Sample Type: U

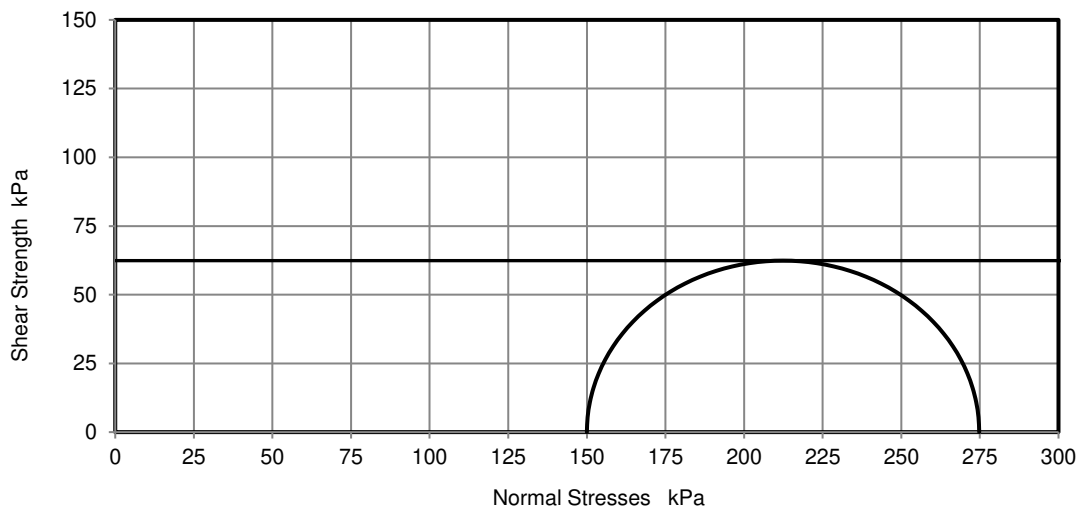
Test Number	1
Length	139.36 mm
Diameter	68.99 mm
Bulk Density	2.05 Mg/m ³
Moisture Content	23 %
Dry Density	1.66 Mg/m ³
Membrane Correction	1.44 kPa

Rate of Strain	2.00 %/min
Cell Pressure	150 kPa
Axial Strain at failure	18.9 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	125 kPa
Undrained Shear Strength, c_u	62 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.27 mm

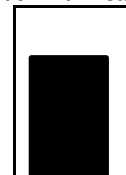
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



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Client Reference: C4259
Job Number: 20-18146
Date Sampled: 29/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

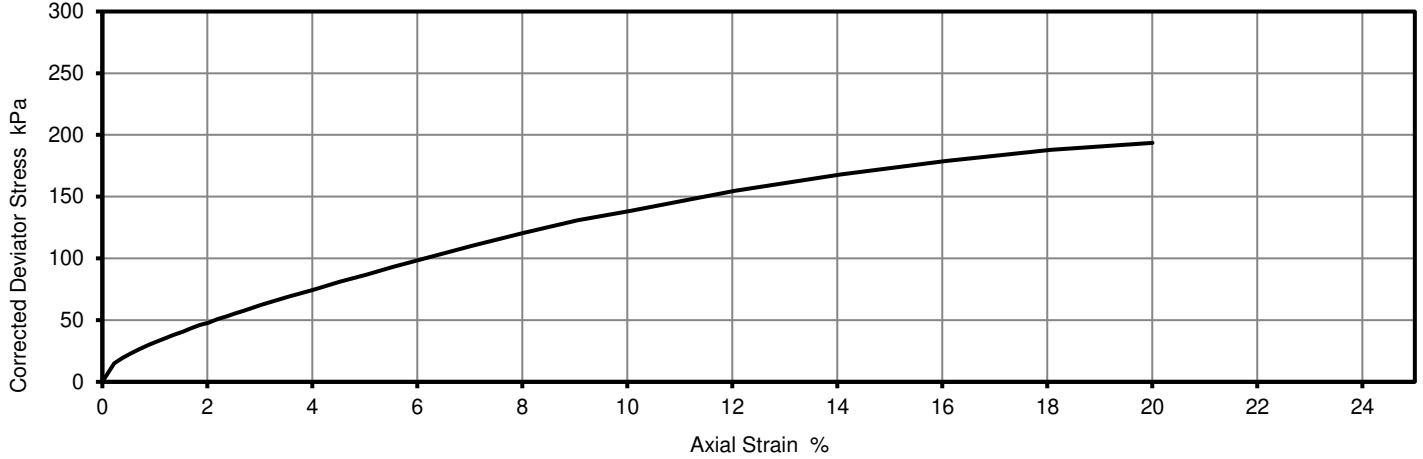
Laboratory Reference: 1555147
Hole No.: CP02
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.00
Depth Base [m]: 3.45
Sample Type: U

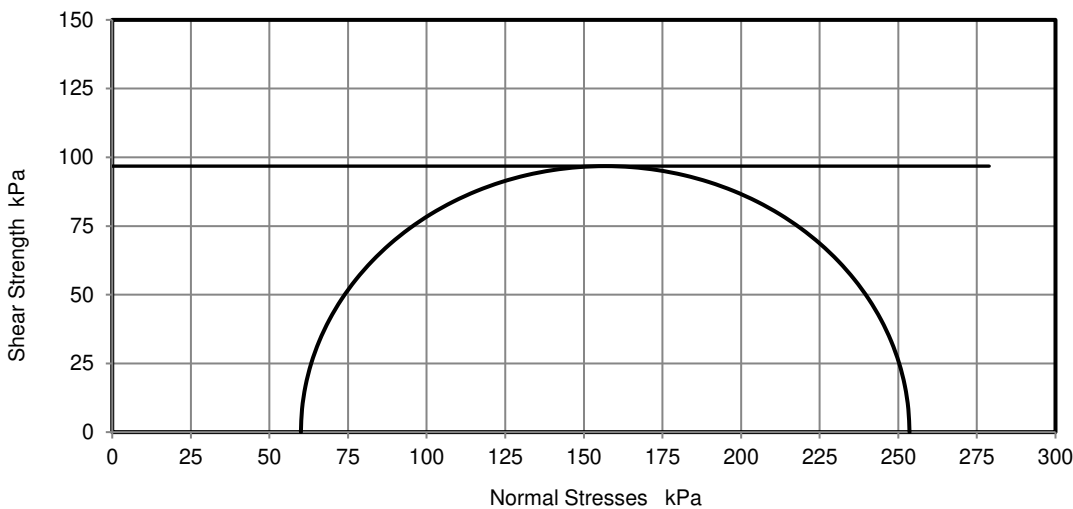
Test Number	1
Length	198.93 mm
Diameter	102.16 mm
Bulk Density	2.22 Mg/m ³
Moisture Content	17 %
Dry Density	1.90 Mg/m ³
Membrane Correction	1.13 kPa

Rate of Strain	2.00 %/min
Cell Pressure	60 kPa
Axial Strain at failure	20.0 %
Deviator Stress, (σ ₁ - σ ₃) _f	194 kPa
Undrained Shear Strength, c _u	97 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.30 mm

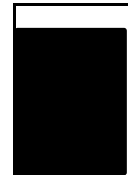
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 1, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-18146
Date Sampled: 29/06/2020
Date Received: 06/07/2020
Date Tested: 15/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

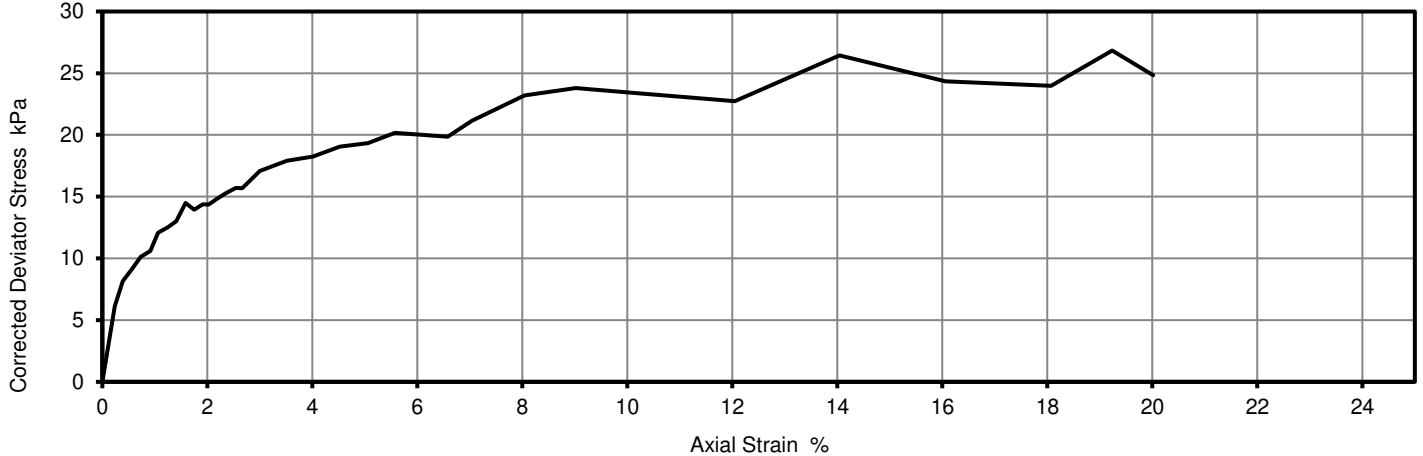
Laboratory Reference: 1555148
Hole No.: CP02
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 7.50
Depth Base [m]: 7.95
Sample Type: U

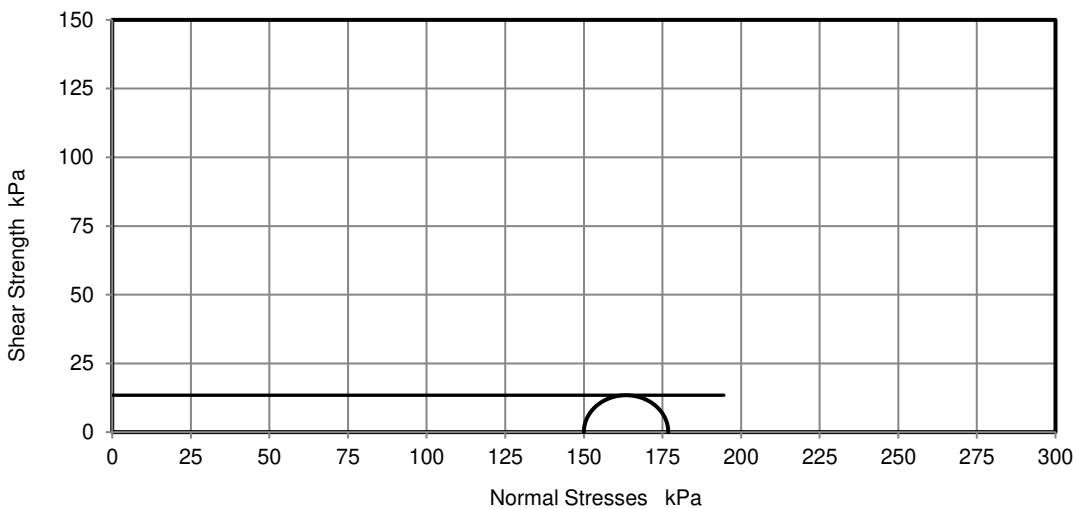
Test Number	1
Length	97.27 mm
Diameter	49.72 mm
Bulk Density	2.13 Mg/m ³
Moisture Content	17 %
Dry Density	1.82 Mg/m ³
Membrane Correction	1.87 kPa

Rate of Strain	2.00 %/min
Cell Pressure	150 kPa
Axial Strain at failure	19.2 %
Deviator Stress, (σ ₁ - σ ₃) _f	27 kPa
Undrained Shear Strength, c _u	13 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.25 mm

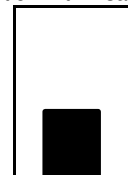
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 18/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

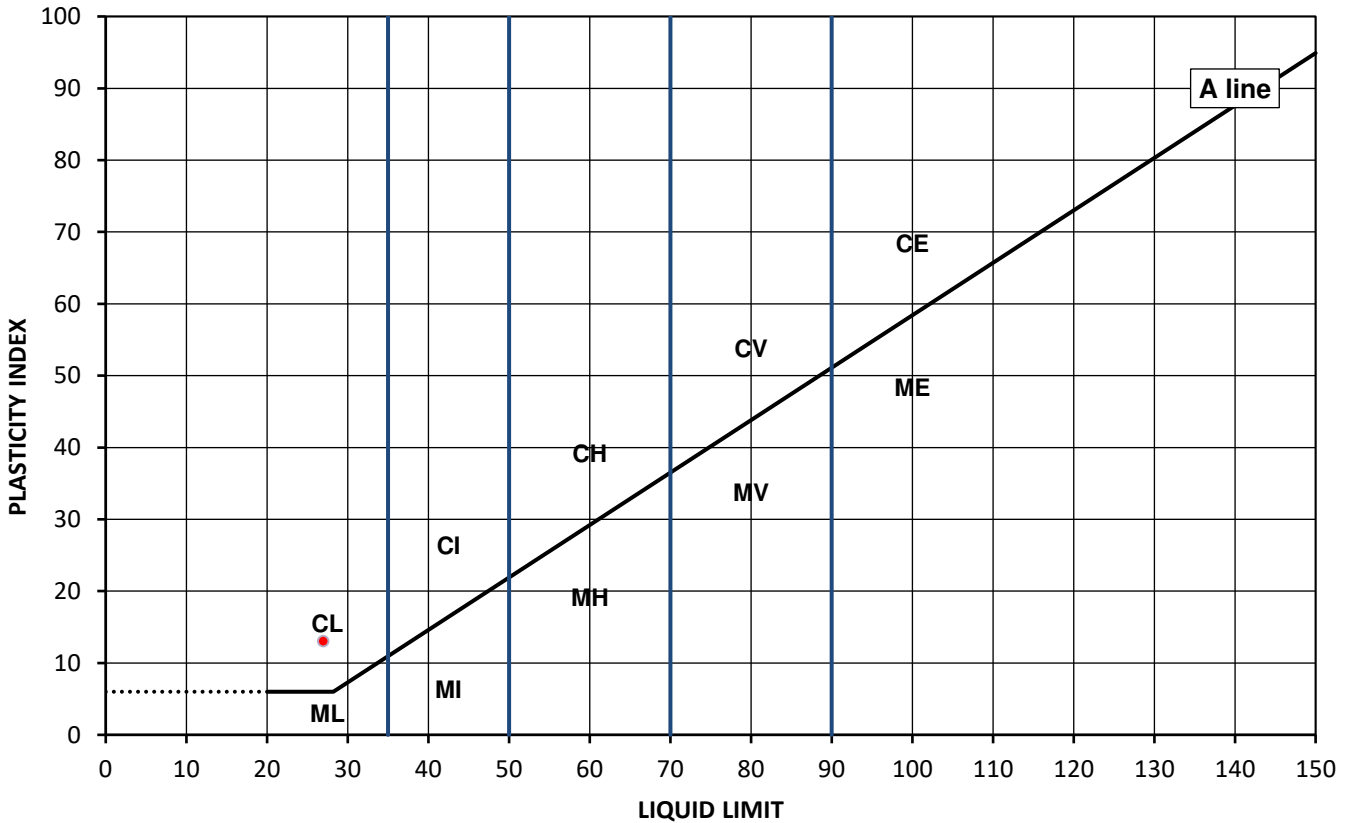
Test Results:

Laboratory Reference: 1555448
Hole No.: WS16
Sample Reference: Not Given
Soil Description: Greyish brown slightly gravelly very sandy CLAY

Depth Top [m]: 0.90
Depth Base [m]: 1.00
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
13	27	14	13	94



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 17/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

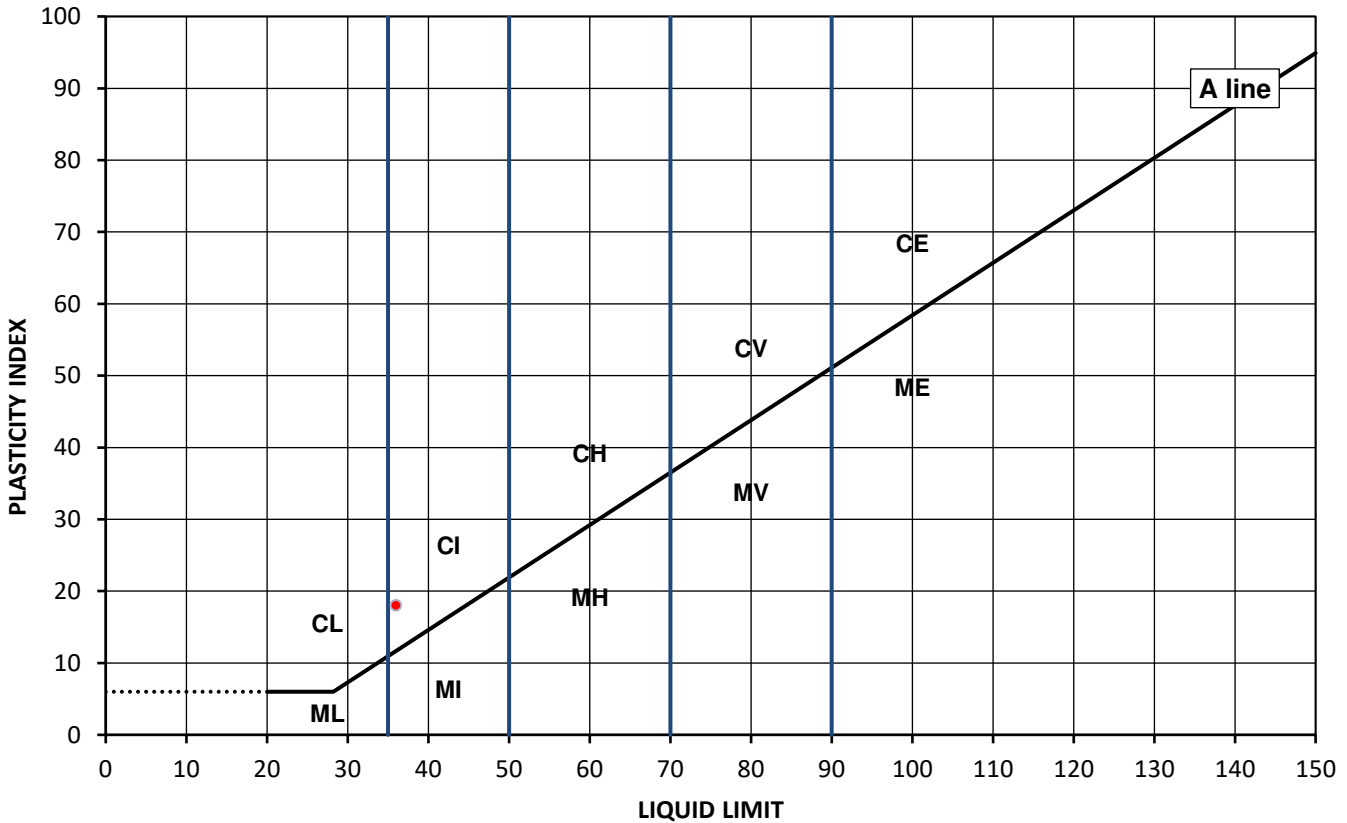
Test Results:

Laboratory Reference: 1555449
Hole No.: WS26
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	36	18	18	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 20/07/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 17/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

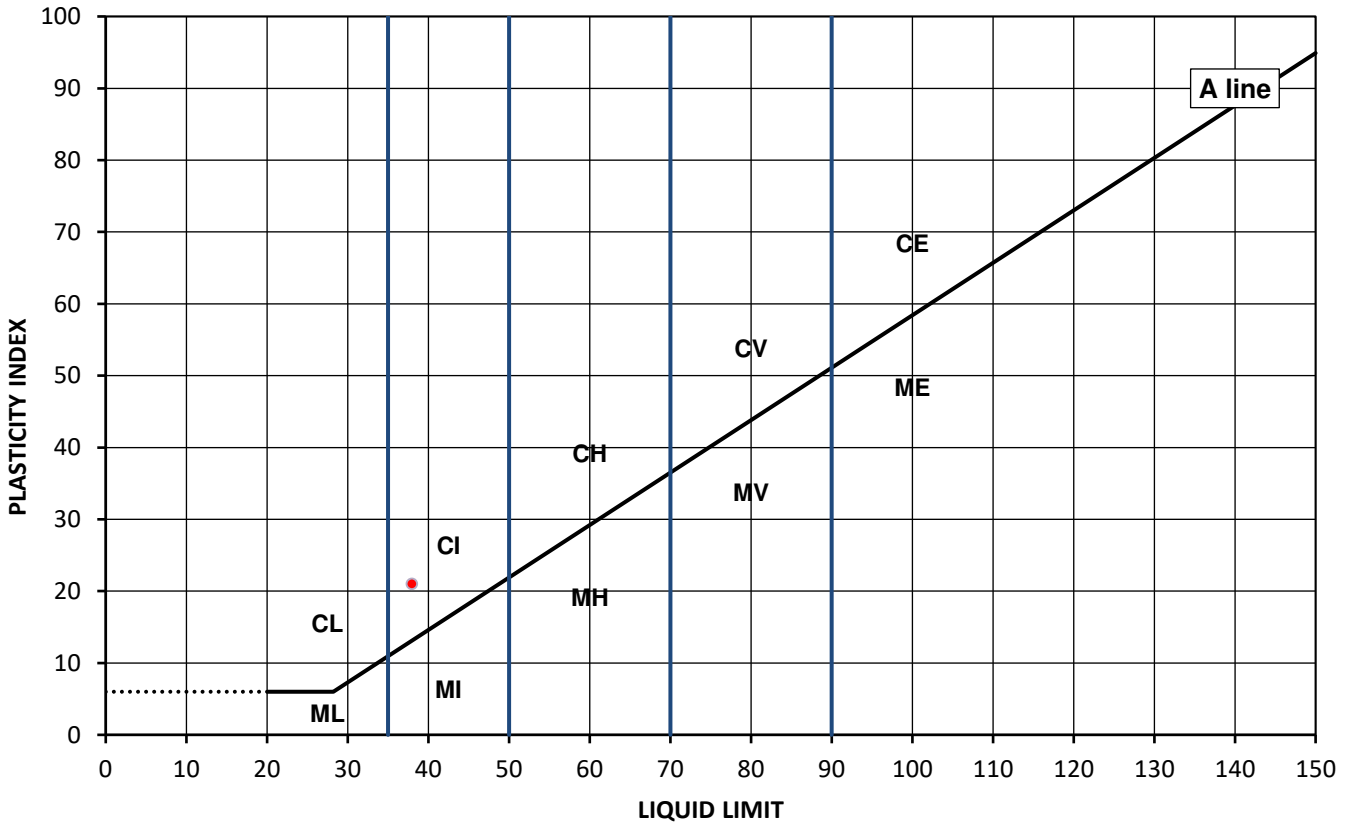
Test Results:

Laboratory Reference: 1555450
Hole No.: WS27
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	38	17	21	92



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 17/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

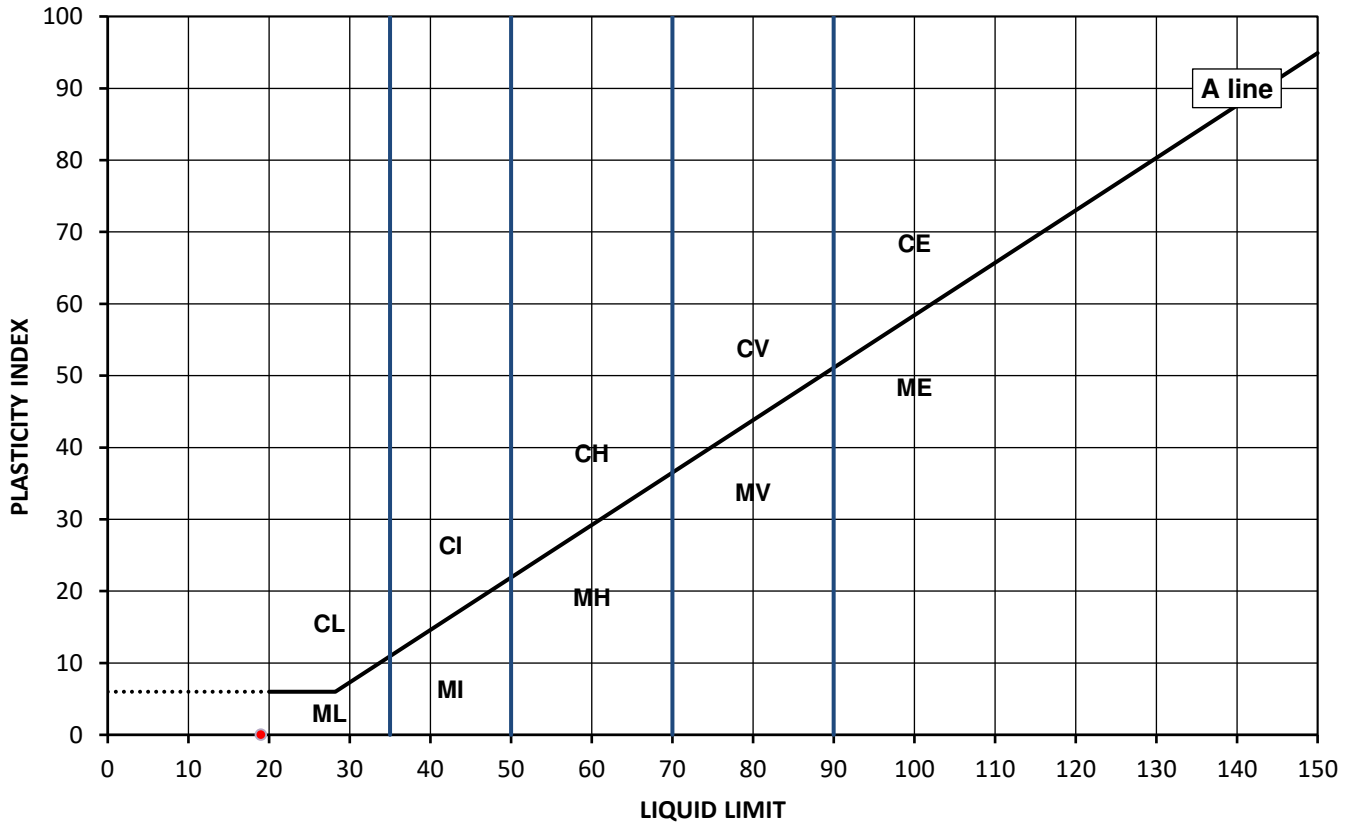
Test Results:

Laboratory Reference: 1555451
Hole No.: WS32
Sample Reference: Not Given
Soil Description: Greyish brown SAND

Depth Top [m]: 1.60
Depth Base [m]: 1.70
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
13	19	NP	NP	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: NP - non plastic

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 16/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

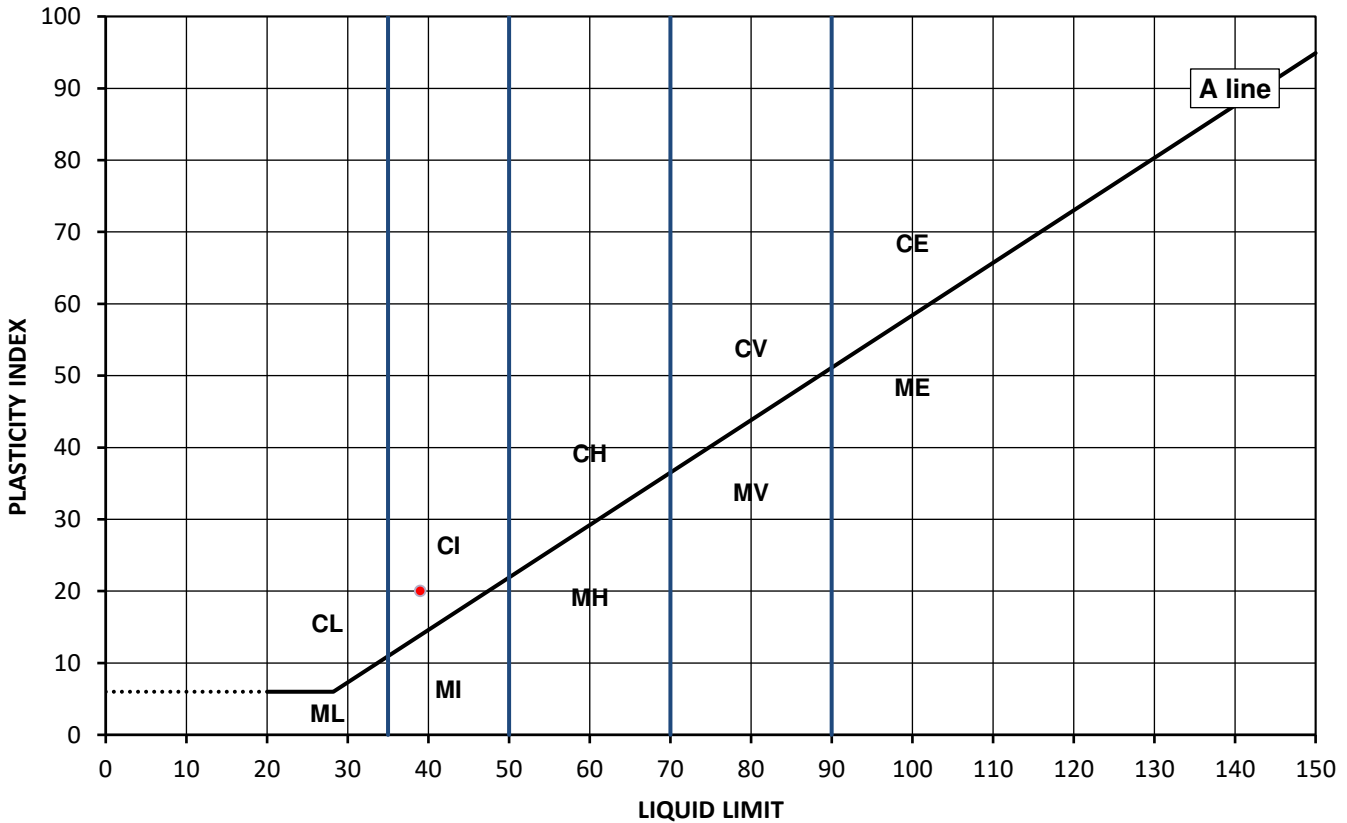
Test Results:

Laboratory Reference: 1555452
Hole No.: WS33
Sample Reference: Not Given
Soil Description: Brown to grey slightly gravelly sandy CLAY

Depth Top [m]: 0.60
Depth Base [m]: 0.80
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	39	19	20	95



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 24/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

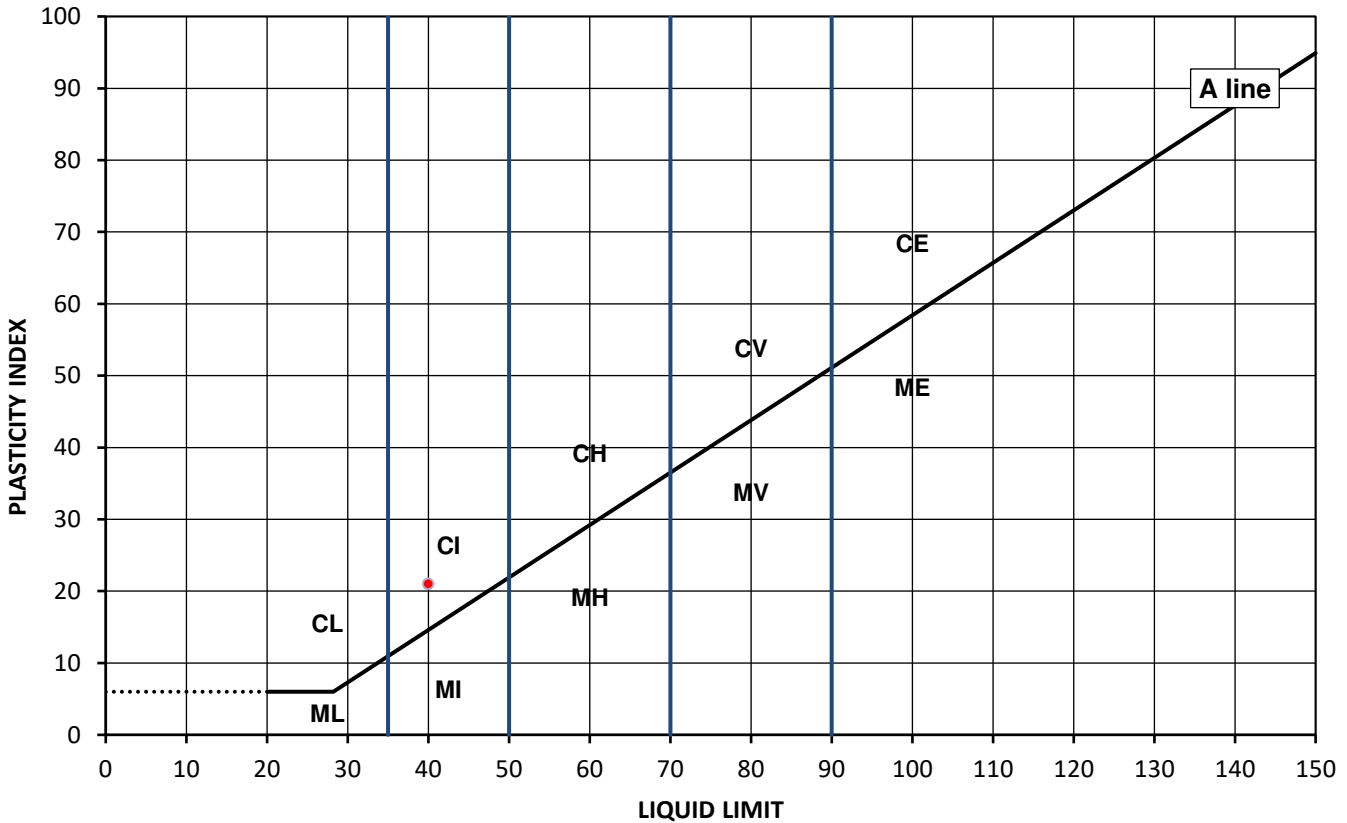
Test Results:

Laboratory Reference: 1555453
Hole No.: TP23
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 0.80
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	40	19	21	82



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 24/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

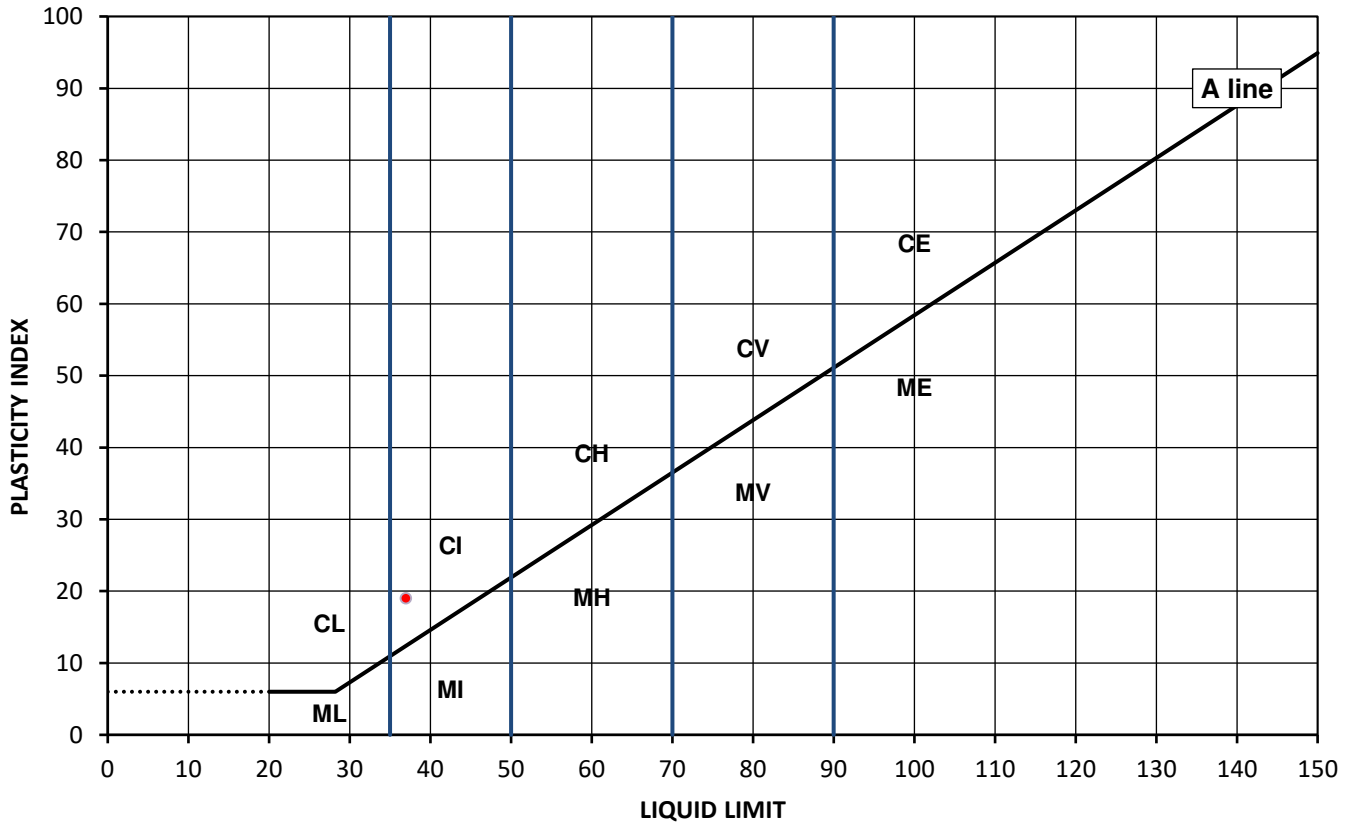
Test Results:

Laboratory Reference: 1555454
Hole No.: TP27
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	37	18	19	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 25/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

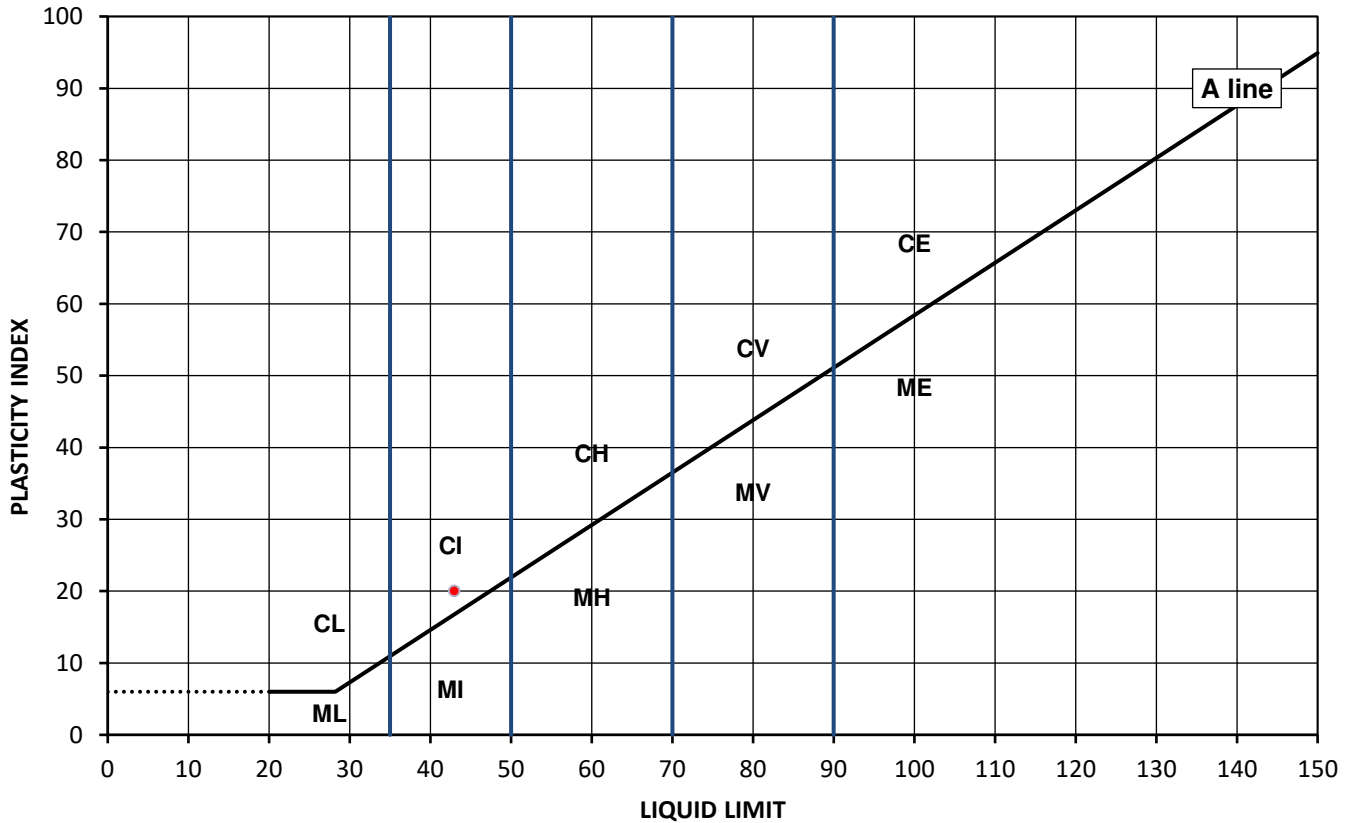
Test Results:

Laboratory Reference: 1555455
Hole No.: TP28
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	43	23	20	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 25/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

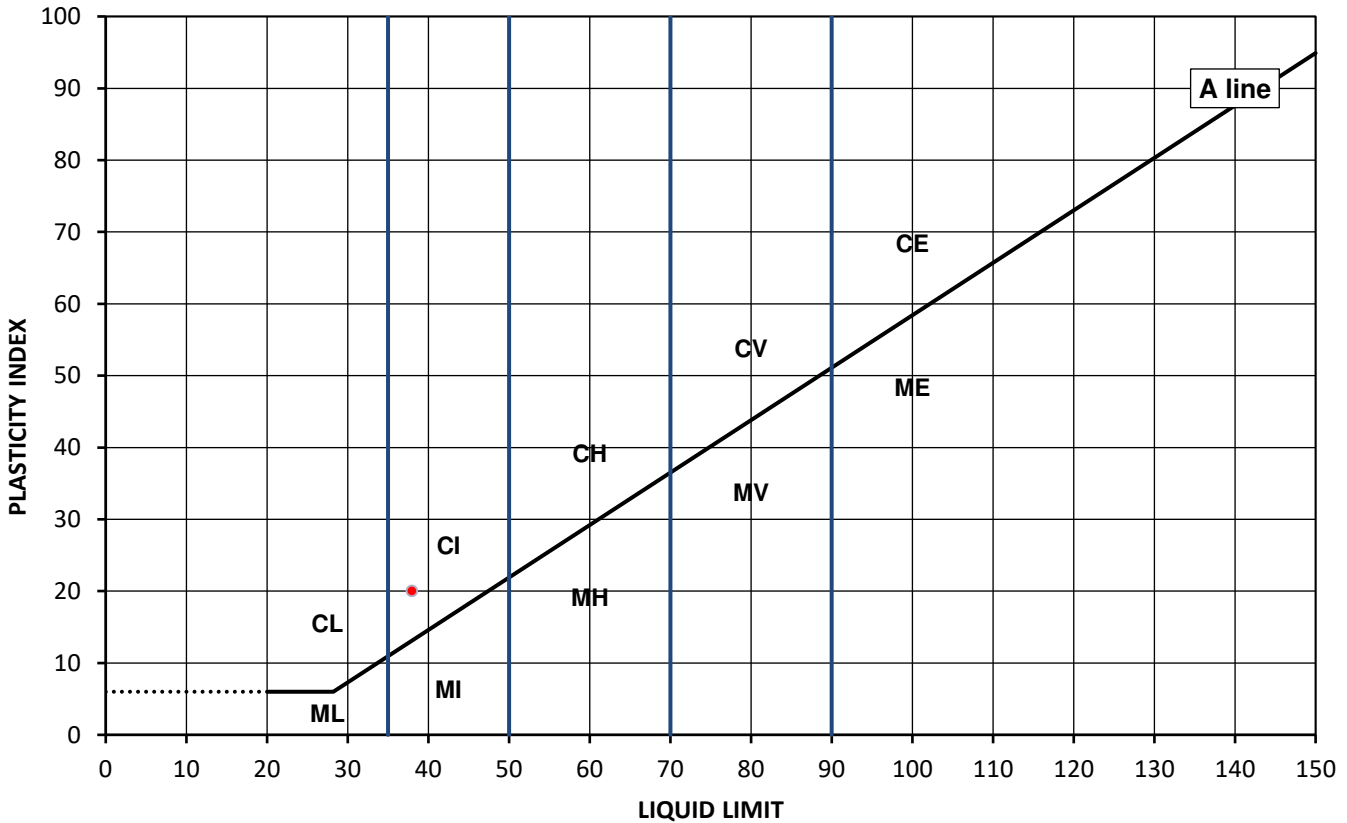
Test Results:

Laboratory Reference: 1555456
Hole No.: TP39
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	38	18	20	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 16/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

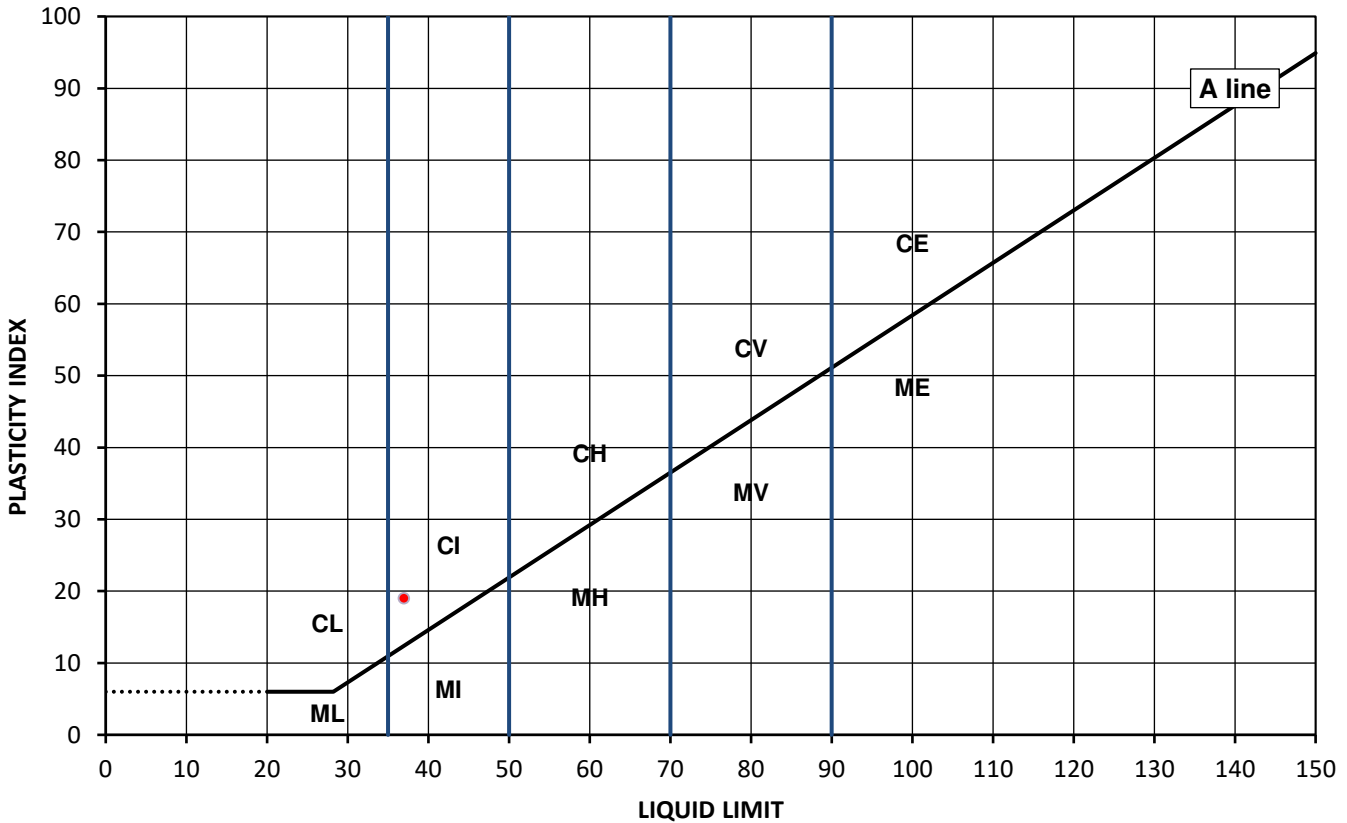
Test Results:

Laboratory Reference: 1555457
Hole No.: BH05
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	37	18	19	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 2, The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-18209
Date Sampled: 16/06 - 25/06/2020
Date Received: 06/07/2020
Date Tested: 17/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
			m	m													
1555457	BH05	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	15		98	37	18	19				
1555453	TP23	Not Given	0.80	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		82	40	19	21				
1555454	TP27	Not Given	2.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	16		100	37	18	19				
1555455	TP28	Not Given	1.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	19		100	43	23	20				
1555456	TP39	Not Given	1.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		98	38	18	20				
1555448	WS16	Not Given	0.90	1.00	D	Greyish brown slightly gravelly very sandy CLAY	Atterberg 1 Point	13		94	27	14	13				
1555449	WS26	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	17		99	36	18	18				
1555450	WS27	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	15		92	38	17	21				
1555451	WS32	Not Given	1.60	1.70	D	Greyish brown SAND	Atterberg 1 Point	13		100	19	NP	NP				
1555452	WS33	Not Given	0.60	0.80	D	Brown to grey slightly gravelly sandy CLAY	Atterberg 1 Point	18		95	39	19	20				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-18209
 Date Sampled: 16/06/2020
 Date Received: 06/07/2020
 Date Tested: 15/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

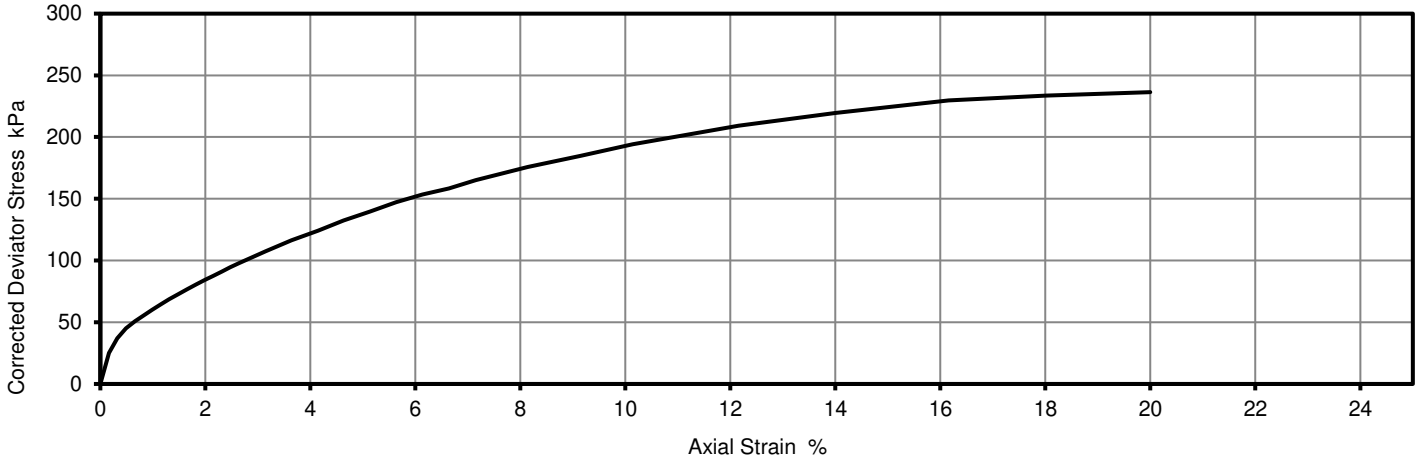
Laboratory Reference: 1555443
 Hole No.: BH05
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.20
 Depth Base [m]: 3.65
 Sample Type: U

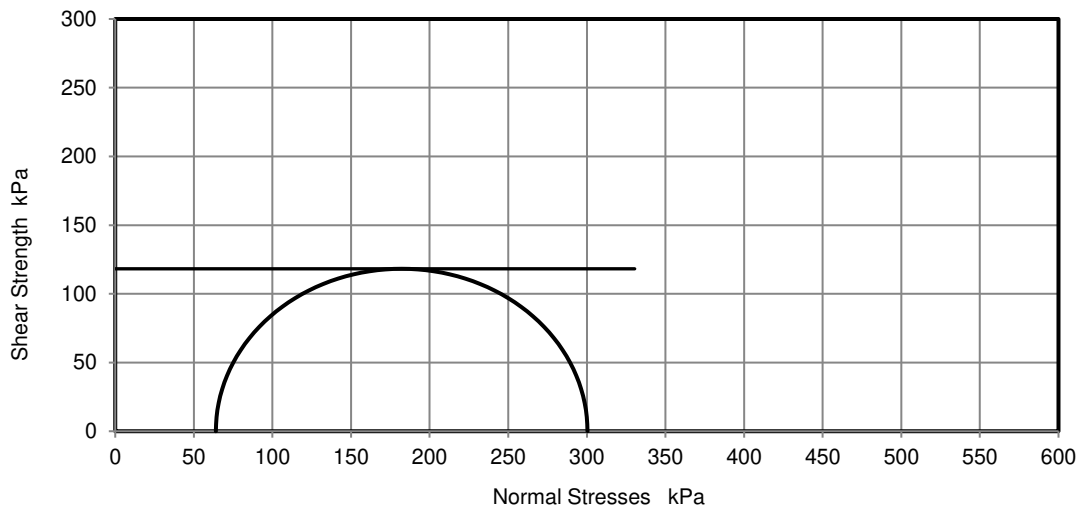
Test Number	1
Length	200.02 mm
Diameter	102.13 mm
Bulk Density	2.08 Mg/m ³
Moisture Content	20 %
Dry Density	1.73 Mg/m ³
Membrane Correction	1.20 kPa

Rate of Strain	2.00 %/min
Cell Pressure	64 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	236 kPa
Undrained Shear Strength, c_u	118 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.32 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

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Monika Janoszek



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Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

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Client: Brownfield Solutions Ltd
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Client Reference: C4259
 Job Number: 20-18209
 Date Sampled: 17/06/2020
 Date Received: 06/07/2020
 Date Tested: 15/07/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

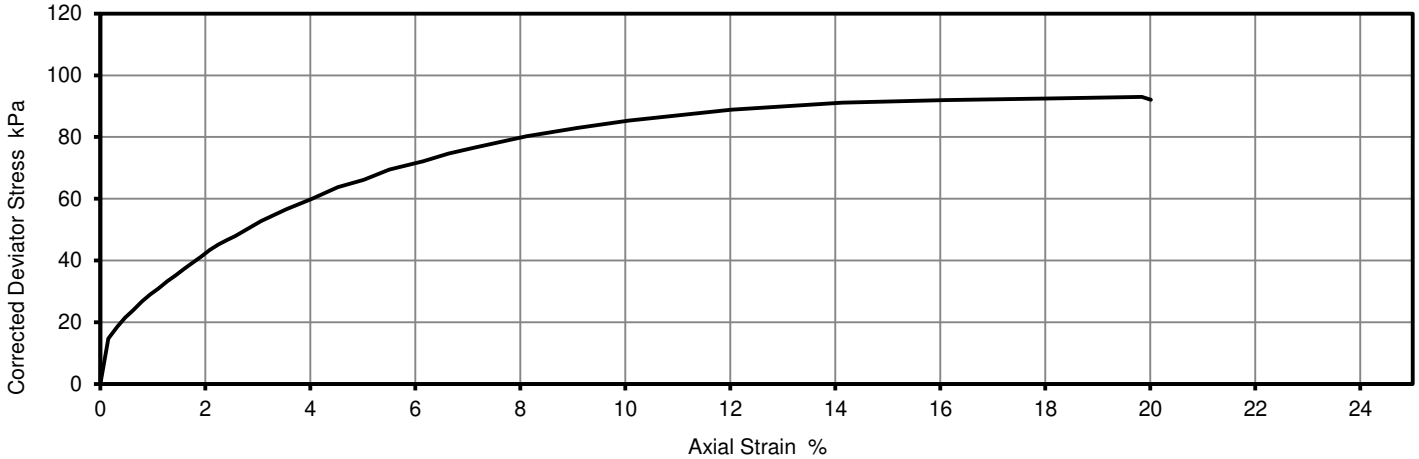
Laboratory Reference: 1555444
 Hole No.: BH06
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 4.40
 Depth Base [m]: 4.85
 Sample Type: U

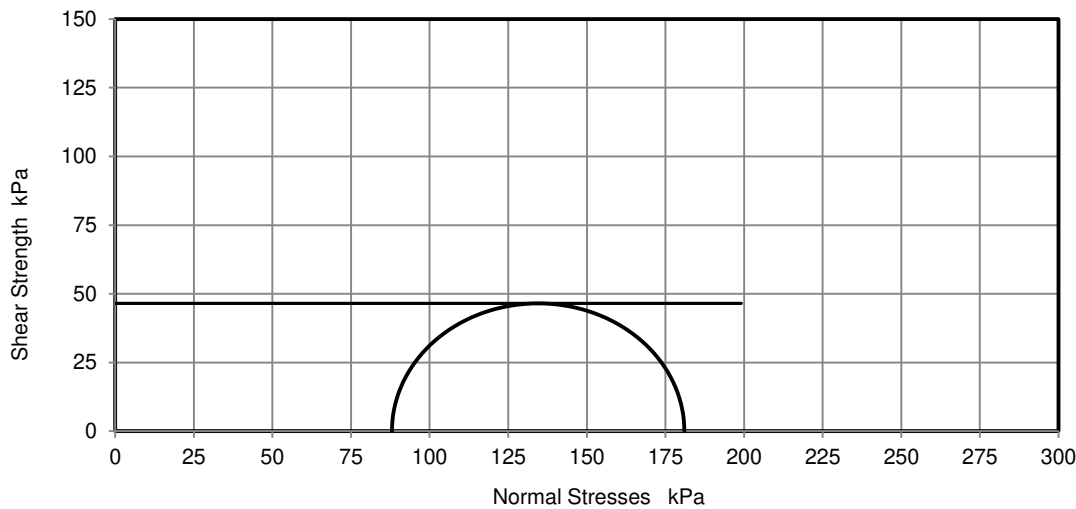
Test Number	1
Length	205.70 mm
Diameter	102.16 mm
Bulk Density	2.05 Mg/m ³
Moisture Content	26 %
Dry Density	1.64 Mg/m ³
Membrane Correction	0.97 kPa

Rate of Strain	1.94 %/min
Cell Pressure	88 kPa
Axial Strain at failure	19.8 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	93 kPa
Undrained Shear Strength, c_u	47 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.26 mm

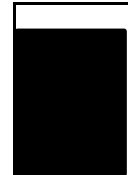
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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Triaxial Compression

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4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP
 Contact: Nicola Swallow
 Site Address: Area 2, The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-18209
 Date Sampled: 16/06/2020
 Date Received: 06/07/2020
 Date Tested: 15/07/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

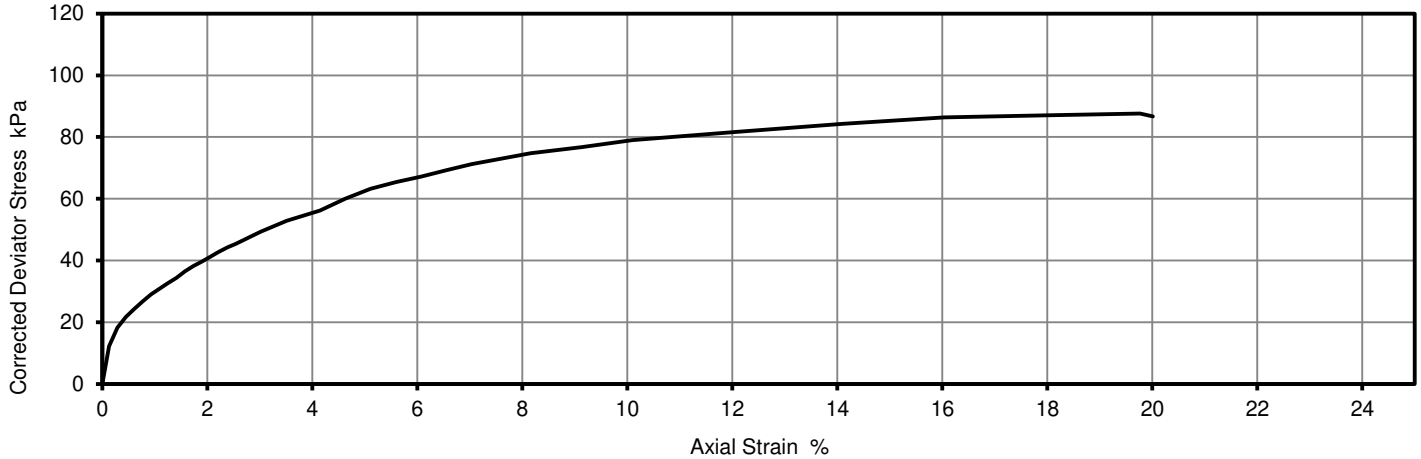
Laboratory Reference: 1555445
 Hole No.: BH16
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 5.50
 Depth Base [m]: 5.95
 Sample Type: U

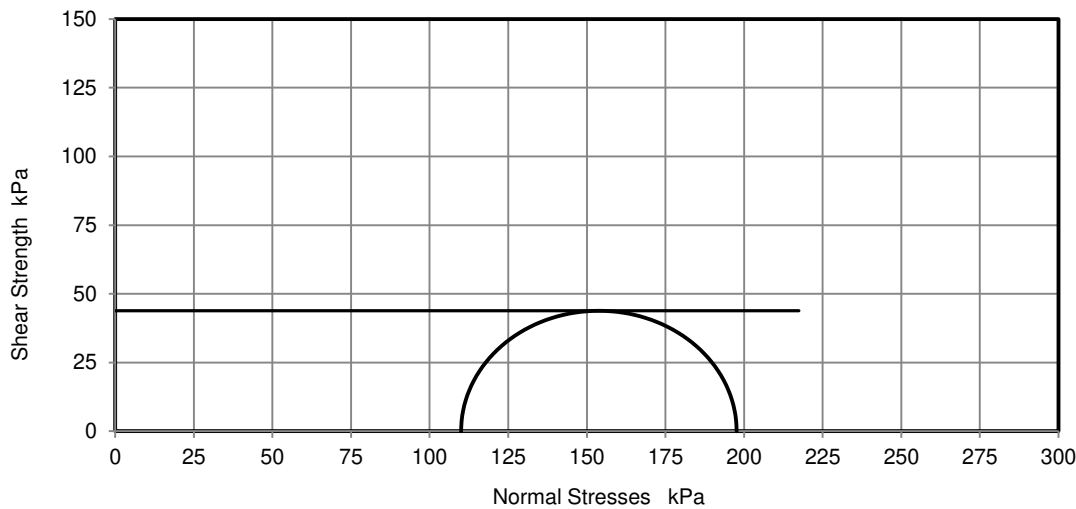
Test Number	1
Length	208.01 mm
Diameter	101.15 mm
Bulk Density	2.18 Mg/m ³
Moisture Content	16 %
Dry Density	1.88 Mg/m ³
Membrane Correction	1.13 kPa

Rate of Strain	1.92 %/min
Cell Pressure	110 kPa
Axial Strain at failure	19.8 %
Deviator Stress, (σ ₁ - σ ₃) _f	88 kPa
Undrained Shear Strength, c _u	44 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.30 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-18209
 Date Sampled: 30/06/2020
 Date Received: 06/07/2020
 Date Tested: 15/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

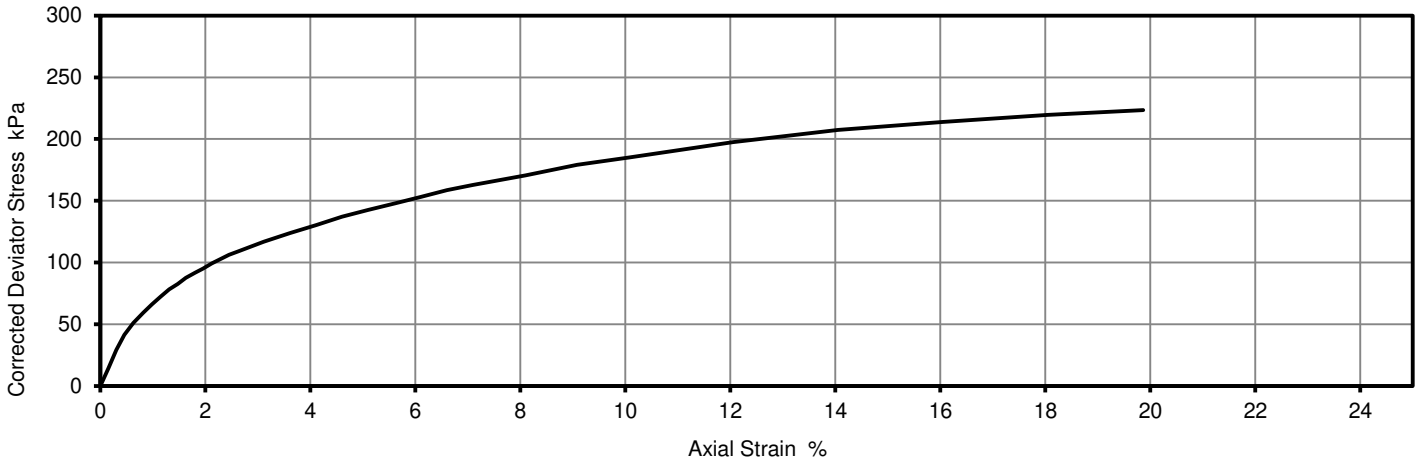
Laboratory Reference: 1555446
 Hole No.: CP03
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.00
 Depth Base [m]: 3.45
 Sample Type: U

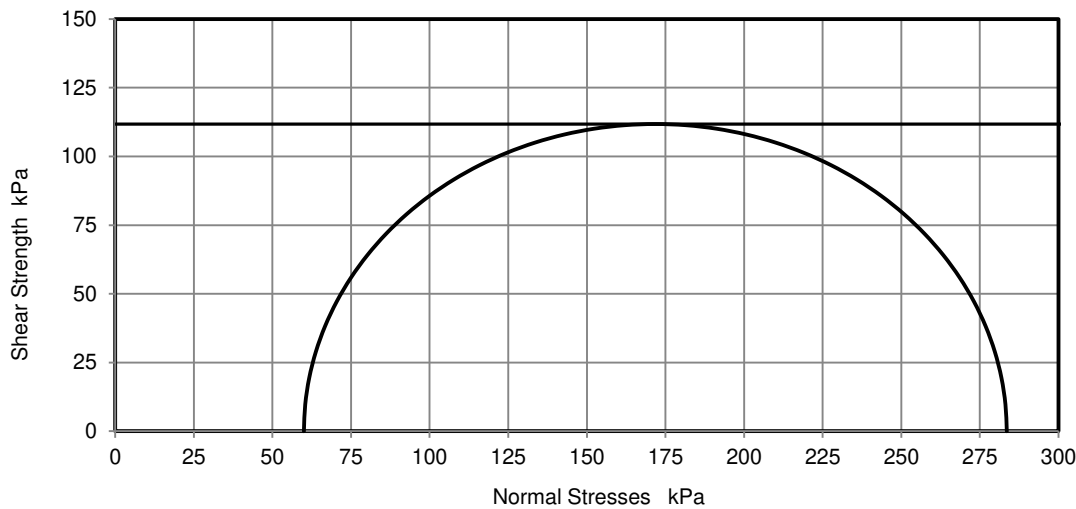
Test Number	1
Length	202.00 mm
Diameter	102.57 mm
Bulk Density	2.02 Mg/m ³
Moisture Content	20 %
Dry Density	1.68 Mg/m ³
Membrane Correction	1.16 kPa

Rate of Strain	1.98 %/min
Cell Pressure	60 kPa
Axial Strain at failure	19.9 %
Deviator Stress, (σ ₁ - σ ₃) _f	224 kPa
Undrained Shear Strength, c _u	112 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.31 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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TEST CERTIFICATE
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Triaxial Compression

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 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
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 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-18209
 Date Sampled: 30/06/2020
 Date Received: 06/07/2020
 Date Tested: 15/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 2, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

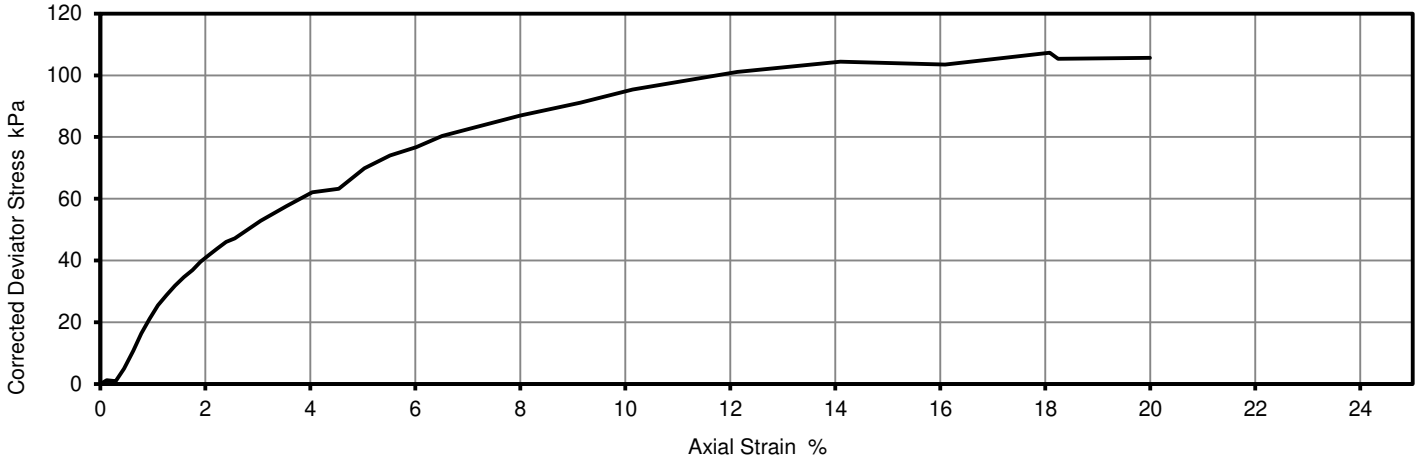
Laboratory Reference: 1555447
 Hole No.: CP03
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 6.00
 Depth Base [m]: 6.45
 Sample Type: U

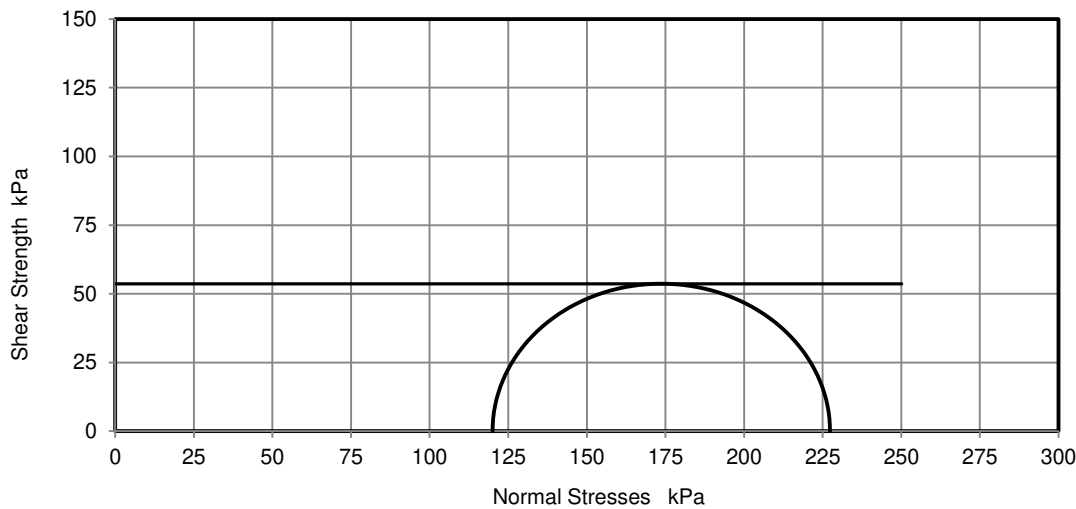
Test Number	1
Length	203.11 mm
Diameter	103.08 mm
Bulk Density	2.13 Mg/m ³
Moisture Content	17 %
Dry Density	1.81 Mg/m ³
Membrane Correction	1.13 kPa

Rate of Strain	1.97 %/min
Cell Pressure	120 kPa
Axial Strain at failure	18.1 %
Deviator Stress, (σ ₁ - σ ₃) _f	107 kPa
Undrained Shear Strength, c _u	54 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.33 mm

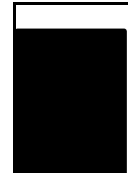
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

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 PL Deputy Head of Geotechnical Section
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Monika Janoszek



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17457
Date Sampled: 19/06/2020
Date Received: 01/07/2020
Date Tested: 13/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 3, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

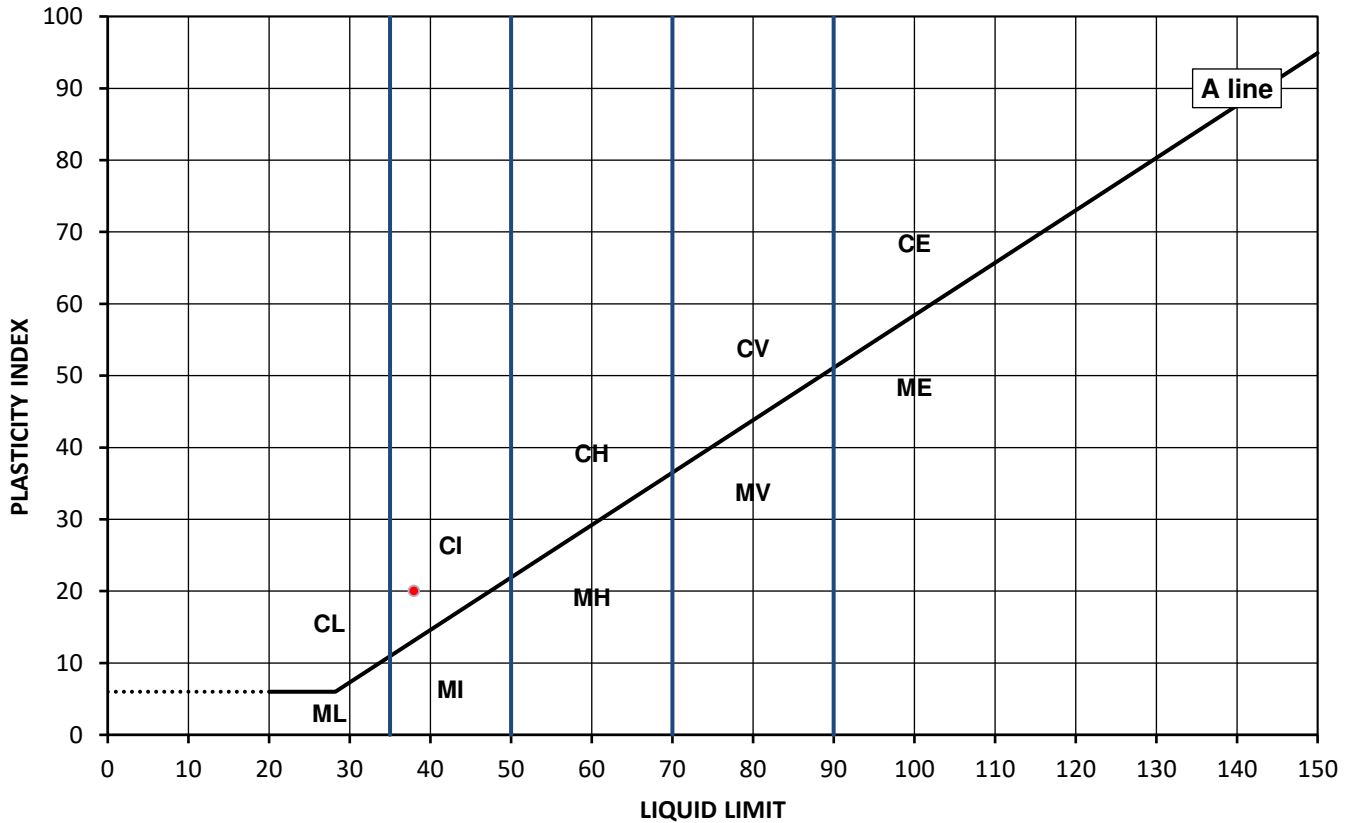
Test Results:

Laboratory Reference: 1551394
Hole No.: WS127
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	38	18	20	94



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 16/07/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17457
Date Sampled: 29/06/2020
Date Received: 01/07/2020
Date Tested: 13/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 3, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

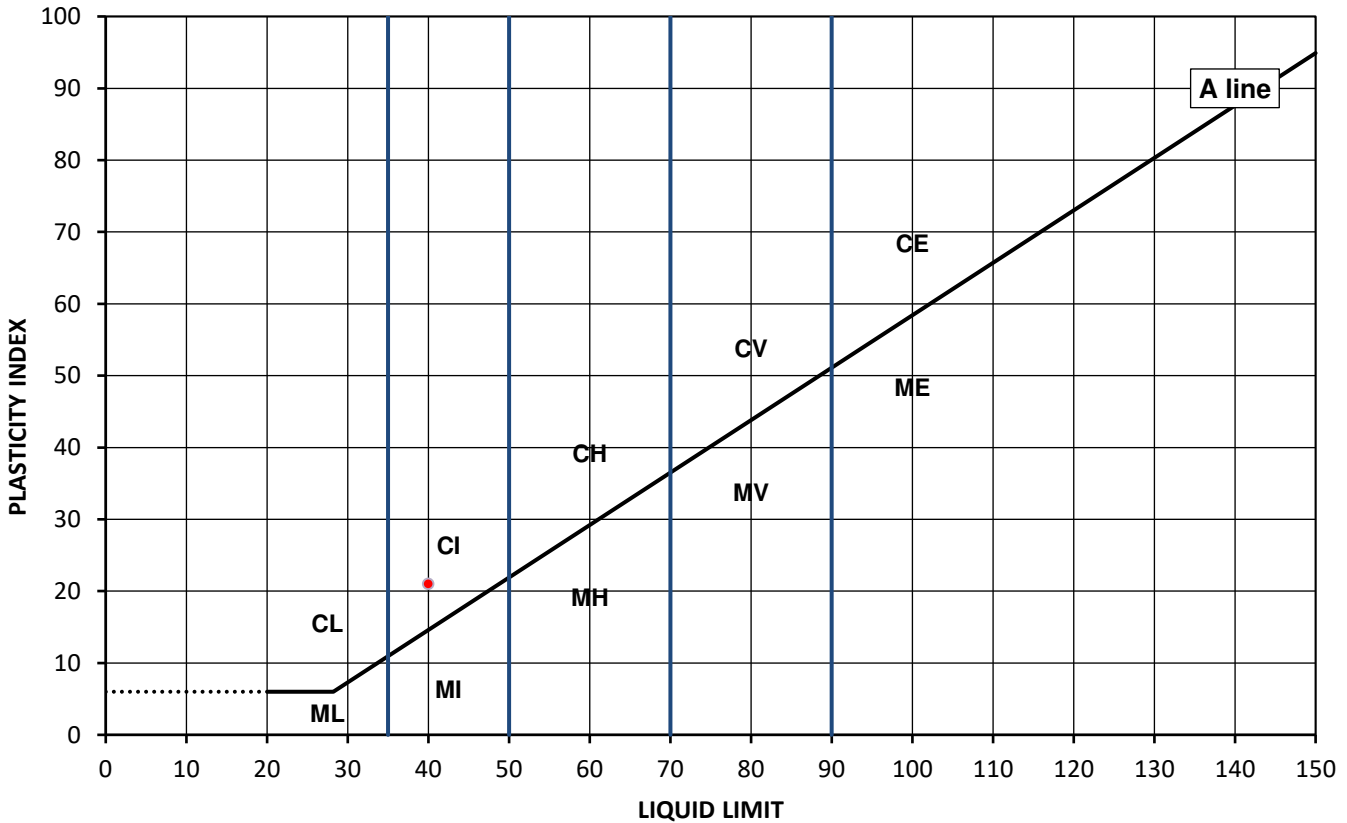
Test Results:

Laboratory Reference: 1551395
Hole No.: HP171
Sample Reference: Not Given
Soil Description: Brown to grey slightly gravelly sandy CLAY

Depth Top [m]: 0.60
Depth Base [m]: 0.70
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
21	40	19	21	95



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low below 35
		I	Medium 35 to 50
		H	High 50 to 70
		V	Very high 70 to 90
		E	Extremely high exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
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GF 232.9



TEST CERTIFICATE

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Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17457
Date Sampled: 29/06/2020
Date Received: 01/07/2020
Date Tested: 13/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 3, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

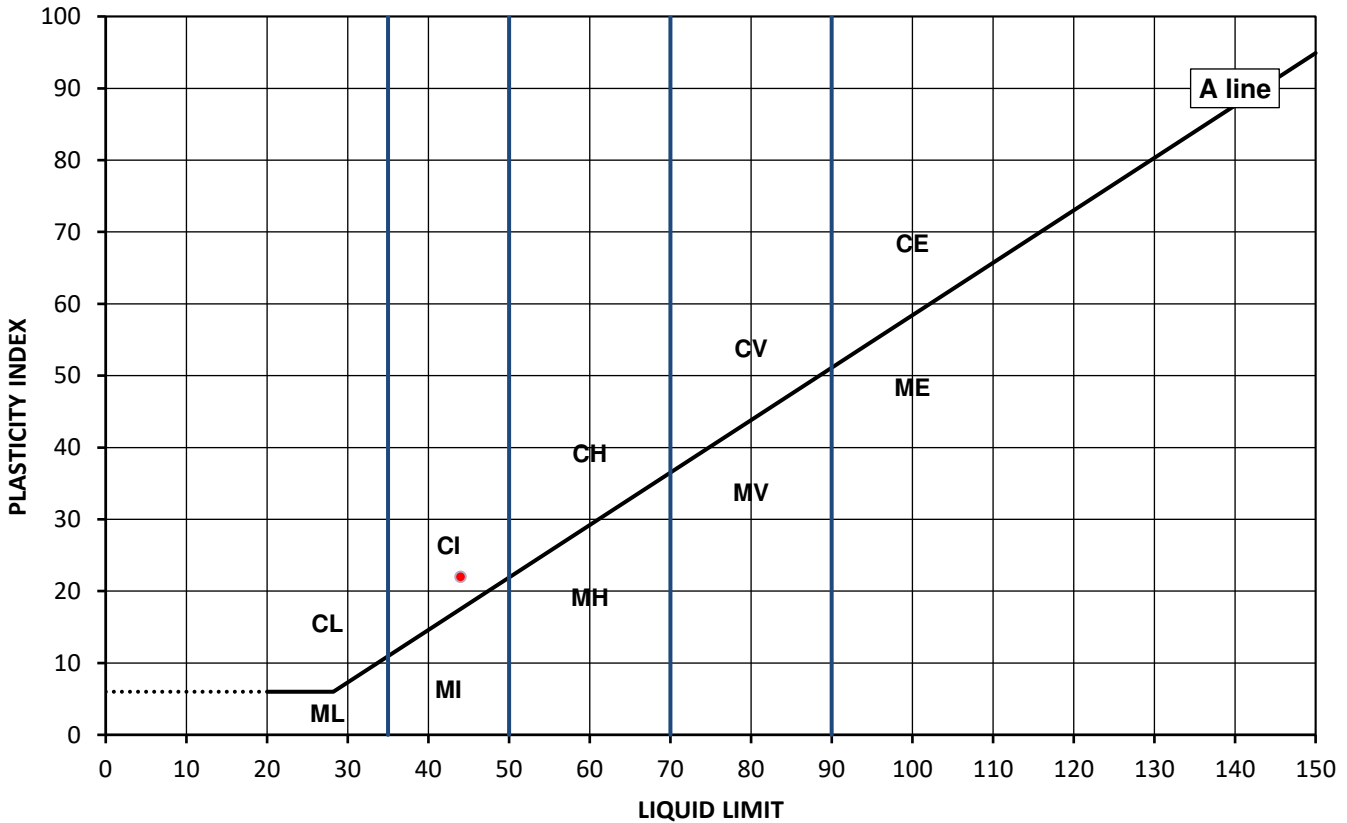
Test Results:

Laboratory Reference: 1551396
Hole No.: HP172
Sample Reference: Not Given
Soil Description: Greyish brown slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: 1.10
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
22	44	22	22	96



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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SUMMARY REPORT

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Summary of Classification Test Results

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 3, The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-17457
Date Sampled: 19/06 - 29/06/2020
Date Received: 01/07/2020
Date Tested: 13/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
			m	m													
1551395	HP171	Not Given	0.60	0.70	D	Brown to grey slightly gravelly sandy CLAY	Atterberg 1 Point	21		95	40	19	21				
1551396	HP172	Not Given	1.00	1.10	D	Greyish brown slightly gravelly sandy CLAY	Atterberg 1 Point	22		96	44	22	22				
1551394	WS127	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		94	38	18	20				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

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PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 24/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

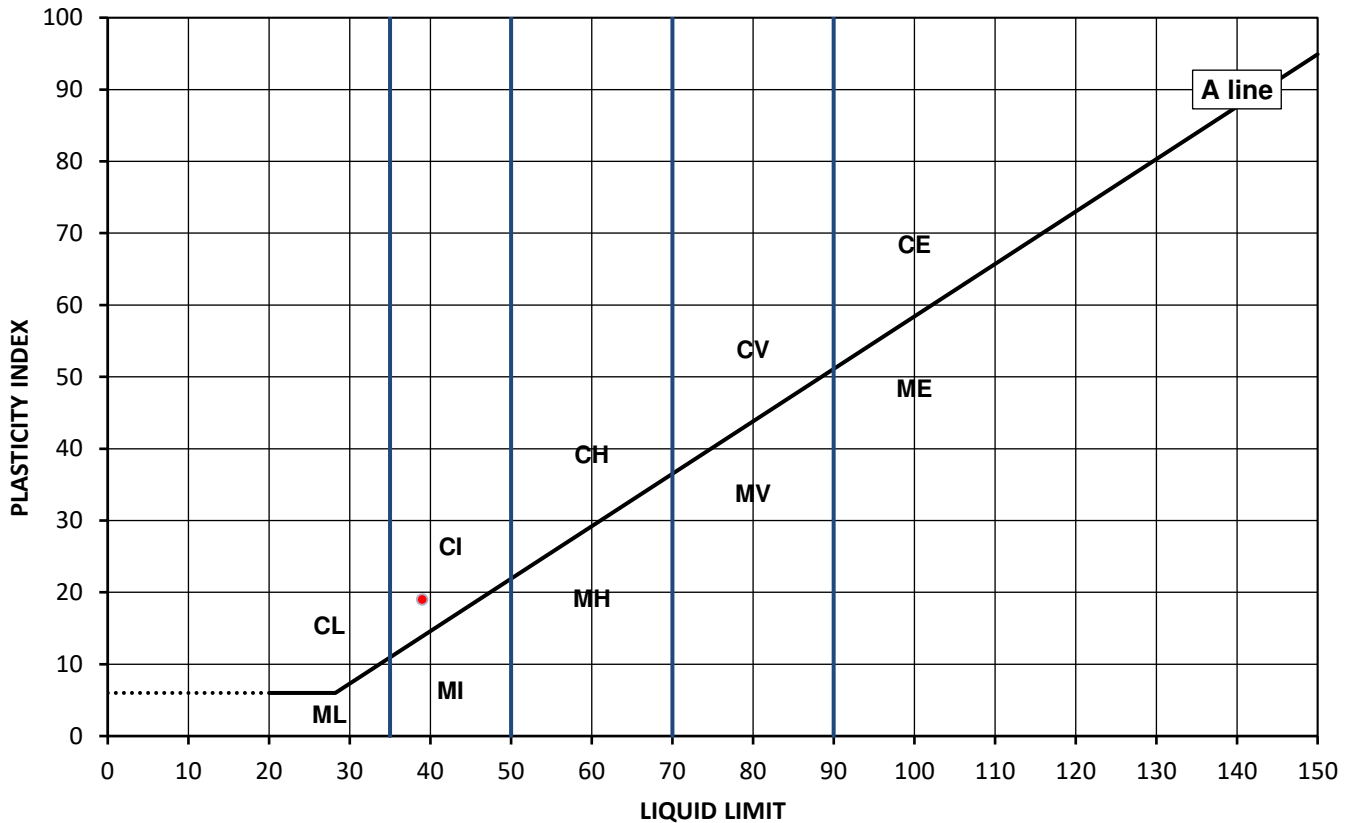
Test Results:

Laboratory Reference: 1551463
Hole No.: WS42
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
23	39	20	19	92



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 19/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

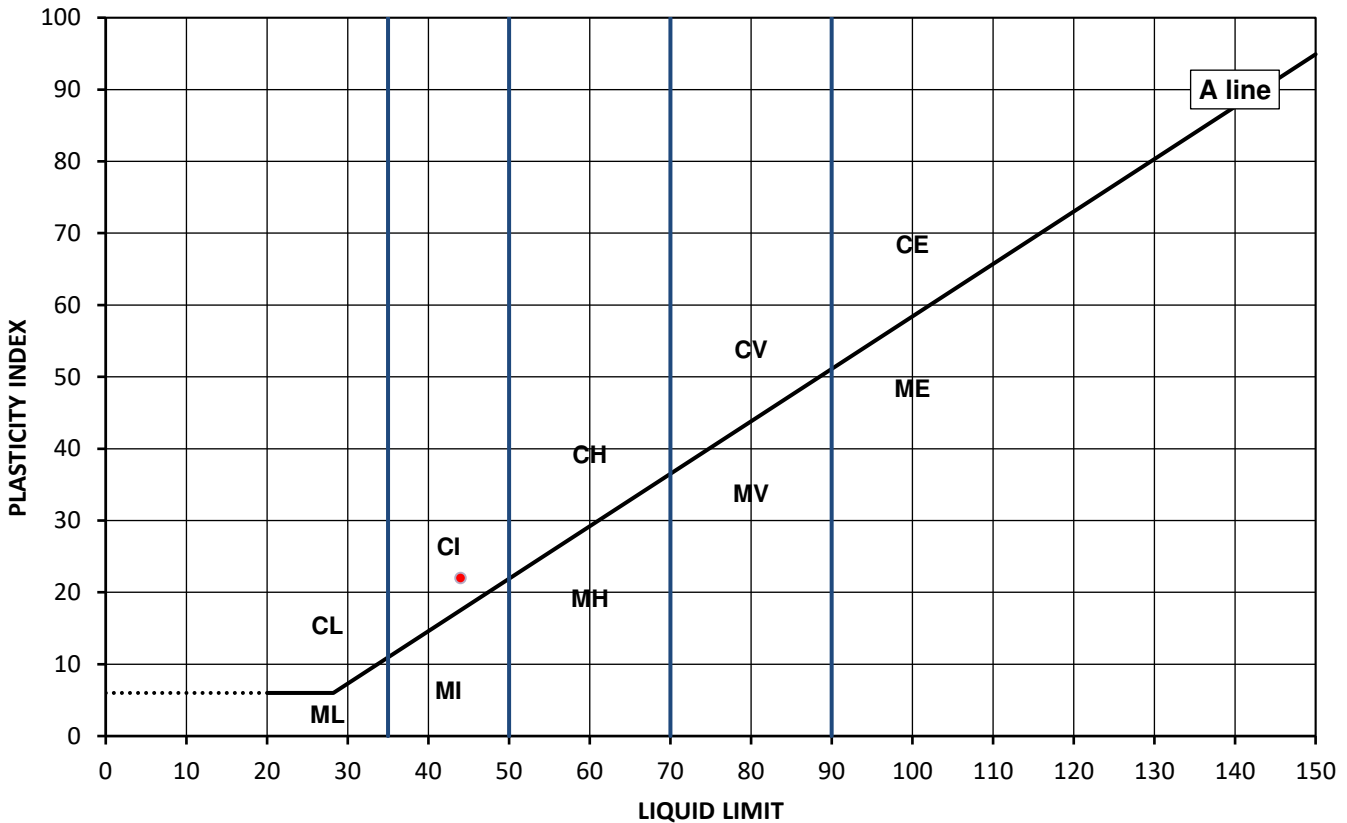
Test Results:

Laboratory Reference: 1551464
Hole No.: WS43
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	44	22	22	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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TEST CERTIFICATE

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Unit 8 Harrowden Road
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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
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CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 19/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

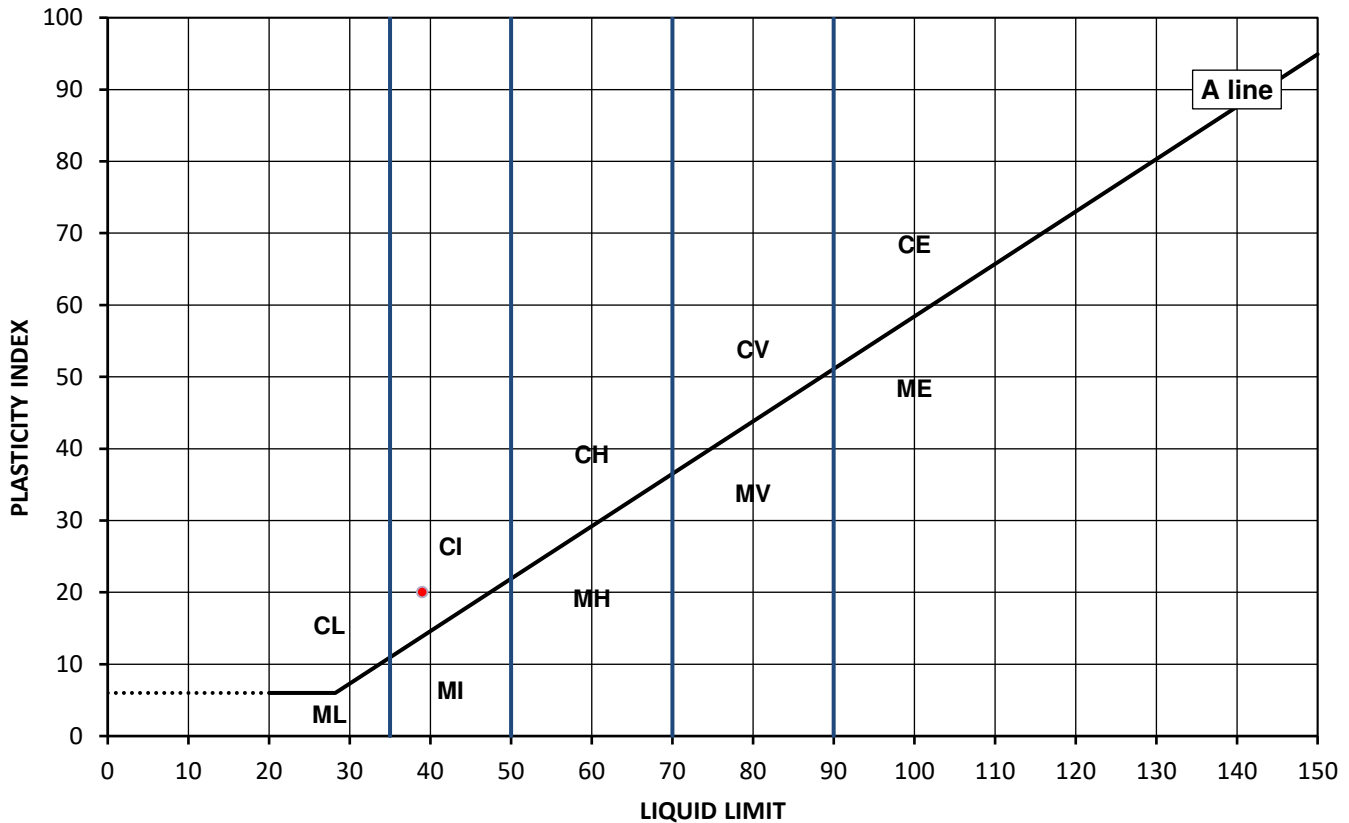
Test Results:

Laboratory Reference: 1551465
Hole No.: WS45
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	39	19	20	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

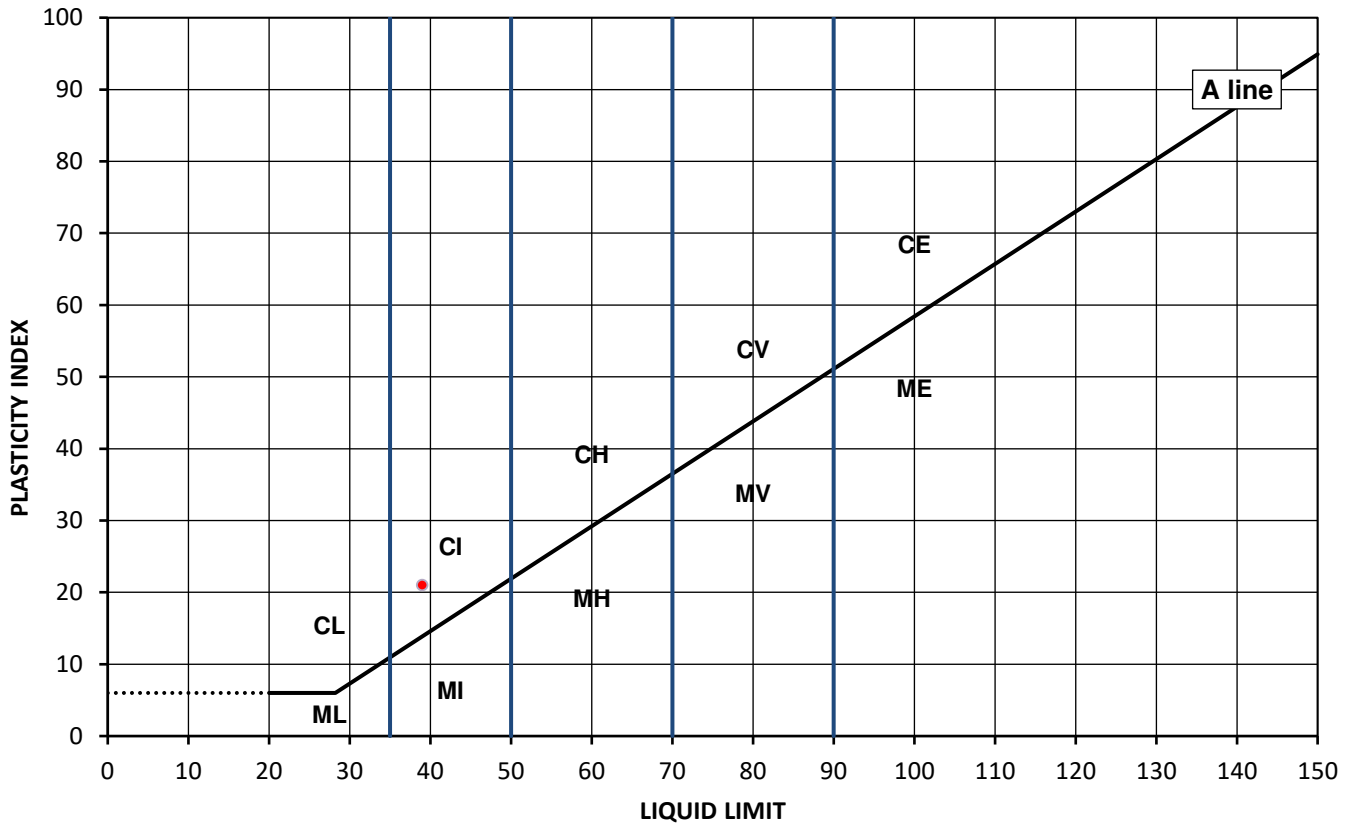
Test Results:

Laboratory Reference: 1551466
Hole No.: TP41
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	39	18	21	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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TEST CERTIFICATE

i2 Analytical Ltd
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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 26/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

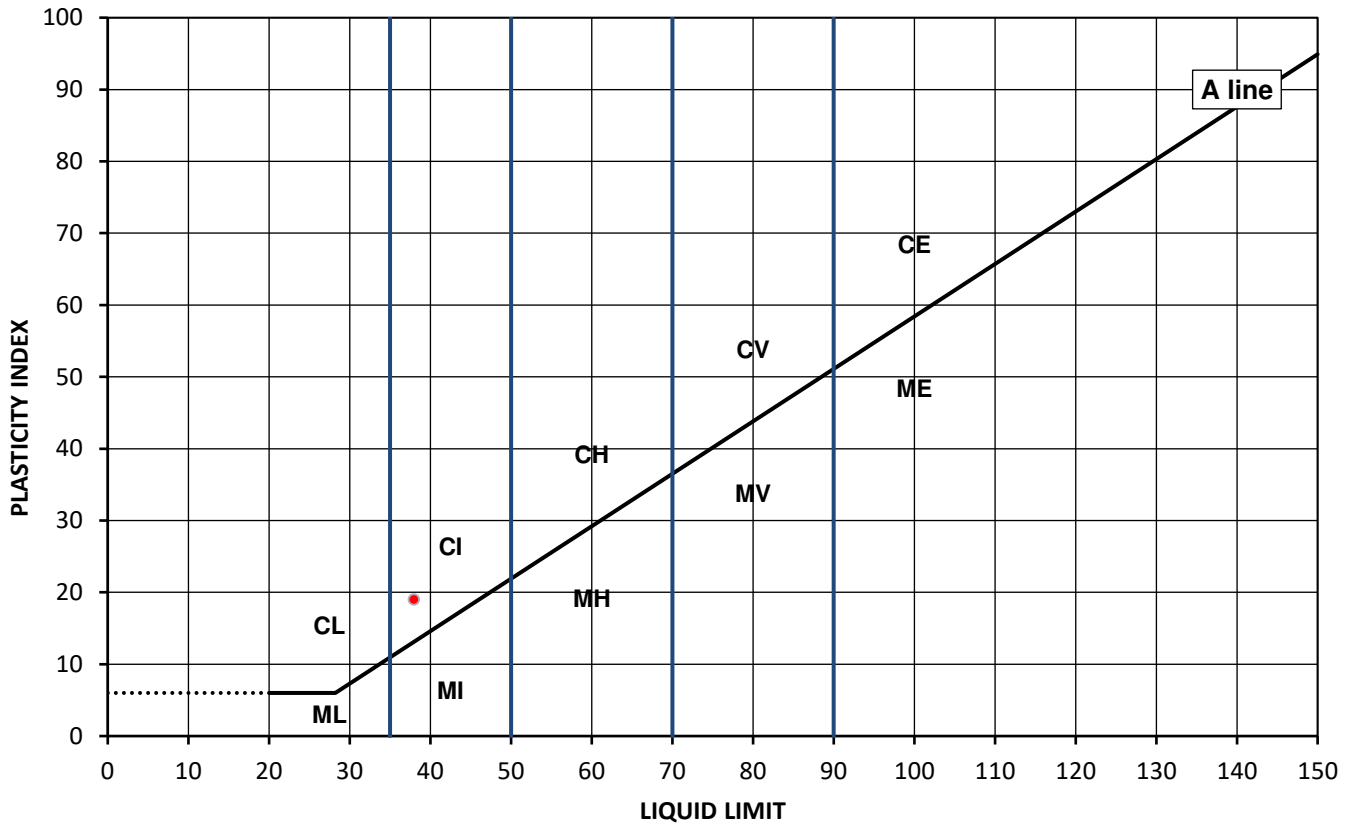
Test Results:

Laboratory Reference: 1551467
Hole No.: TP45
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 0.60
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	38	19	19	96



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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TEST CERTIFICATE

i2 Analytical Ltd
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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
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CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 25/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

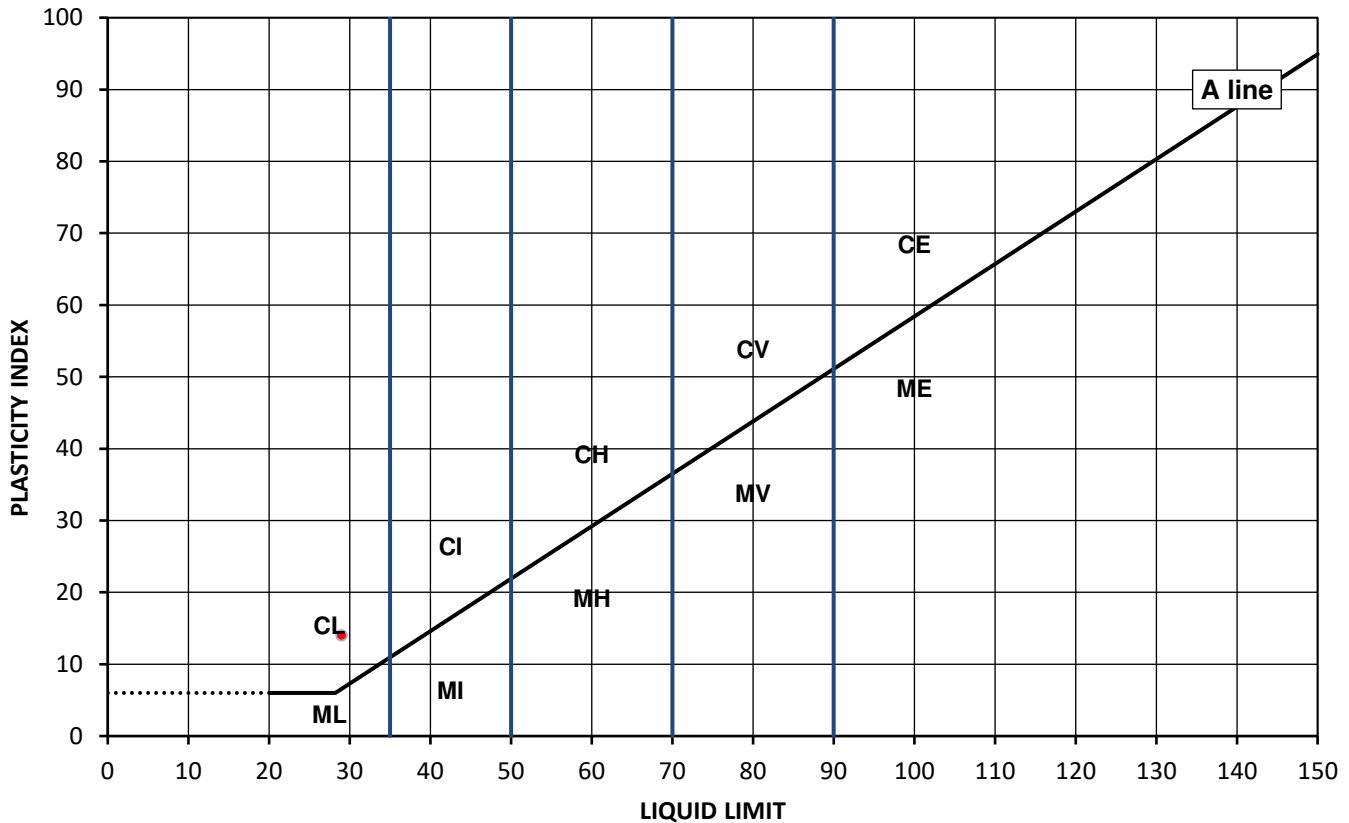
Test Results:

Laboratory Reference: 1551468
Hole No.: TP49
Sample Reference: Not Given
Soil Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.30
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	29	15	14	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Page 1 of 1

Date Reported: 16/07/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
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Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 26/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

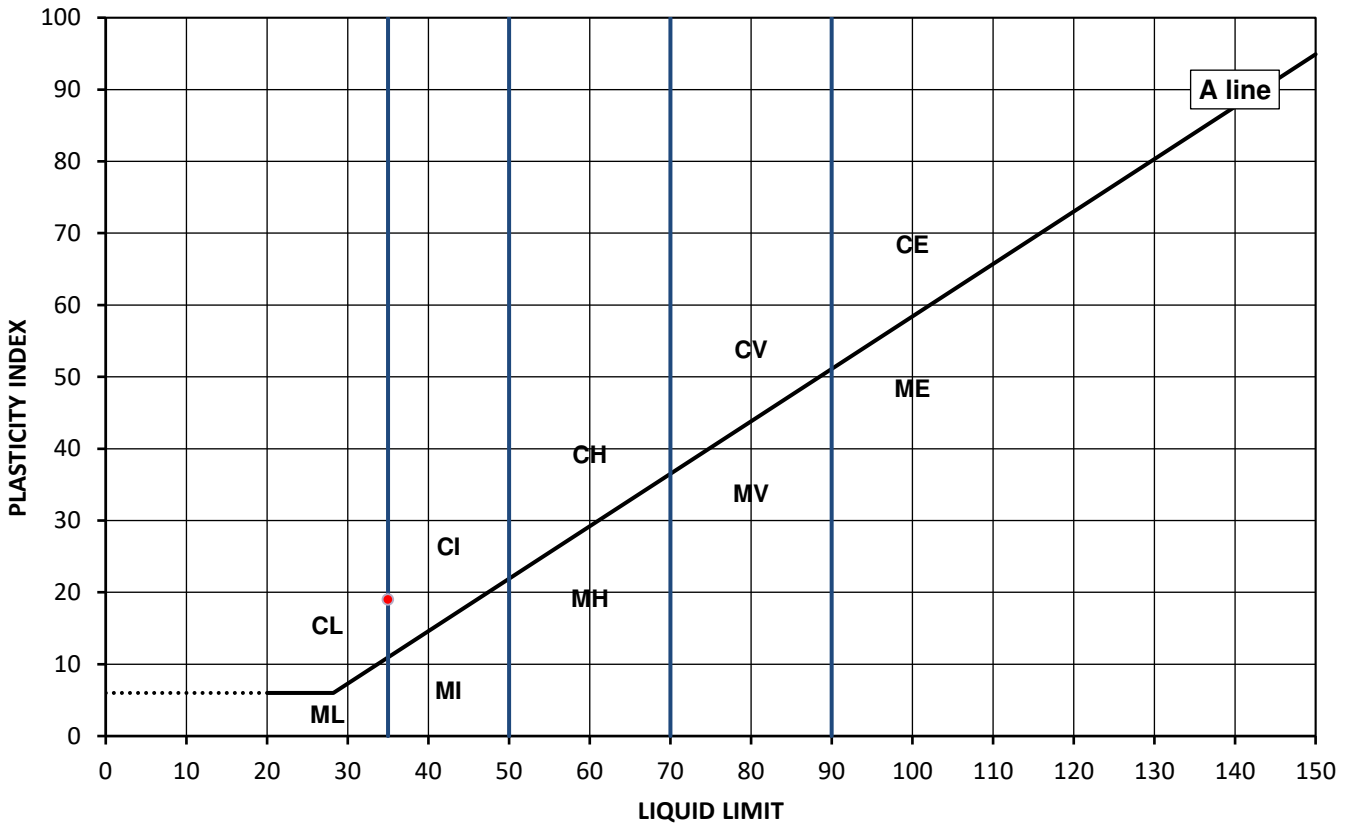
Test Results:

Laboratory Reference: 1551469
Hole No.: TP53
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	35	16	19	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Liquid and Plastic Limits

4041

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Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

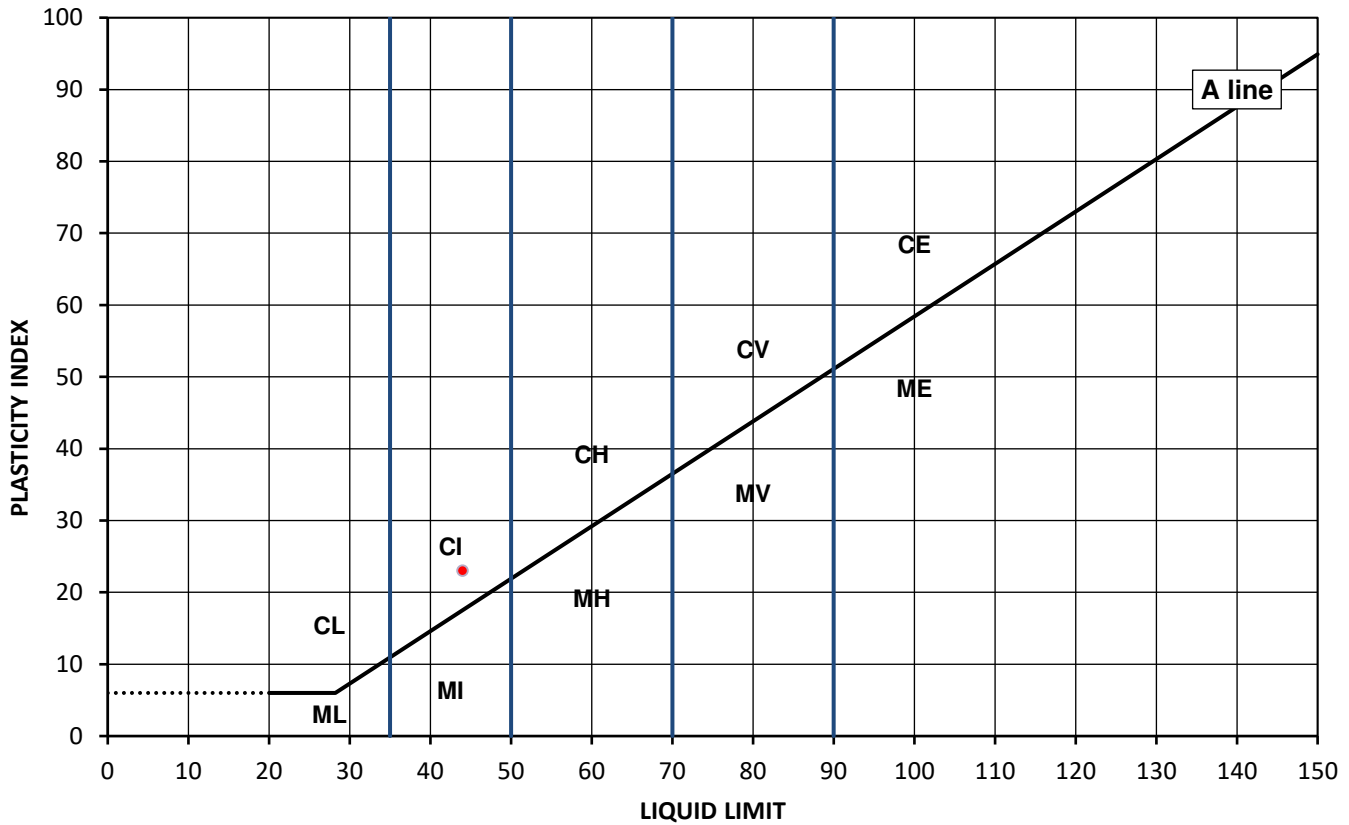
Test Results:

Laboratory Reference: 1551470
Hole No.: TP58
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	44	21	23	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 25/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

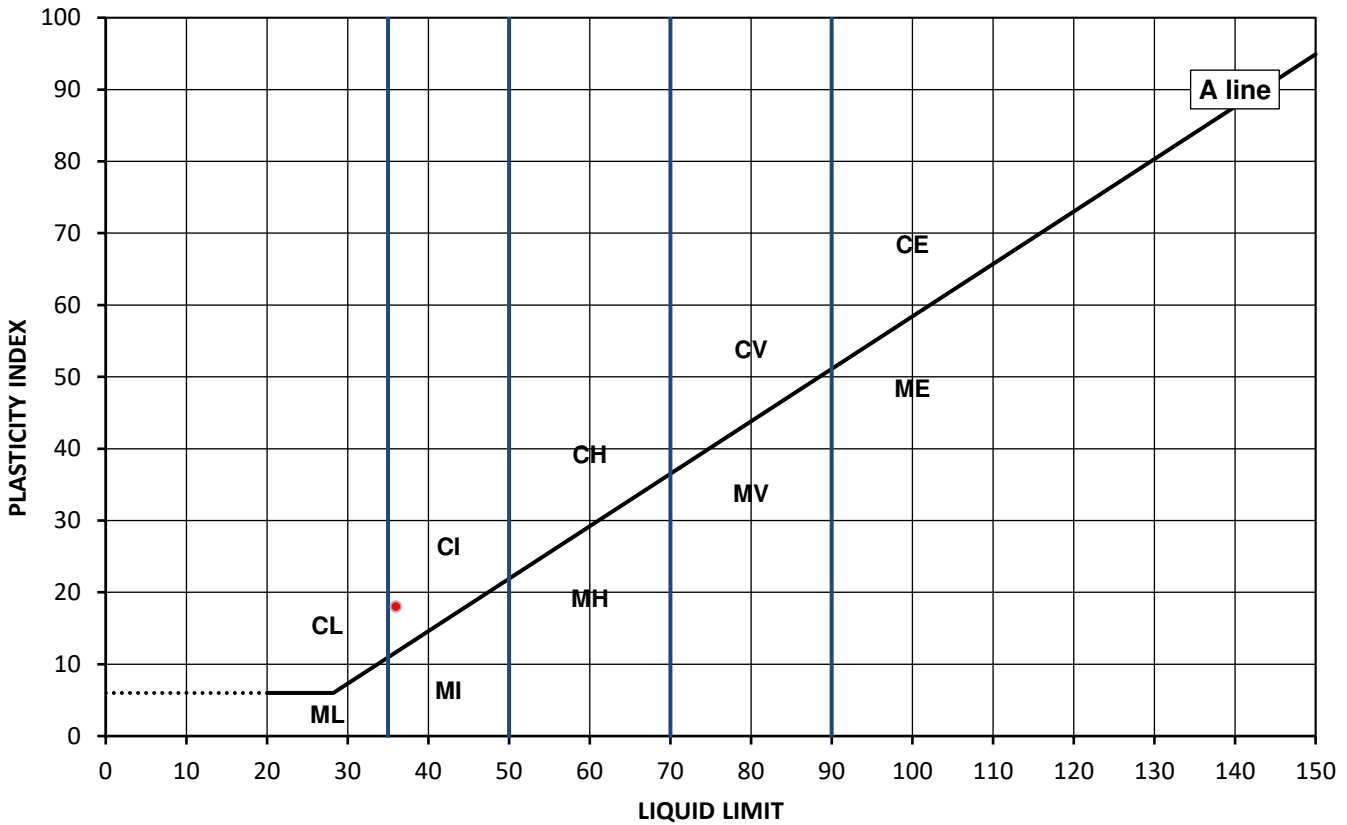
Test Results:

Laboratory Reference: 1551471
Hole No.: SA03
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: 1.60
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	36	18	18	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 4, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client Reference: C4259
 Job Number: 20-17477
 Date Sampled: 19/06 - 26/06/2020
 Date Received: 01/07/2020
 Date Tested: 11/07/2020
 Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %	
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3		
1551471	SA03	Not Given	1.50	1.60	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		99	36	18	18					
1551466	TP41	Not Given	1.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		98	39	18	21					
1551467	TP45	Not Given	0.60	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		96	38	19	19					
1551468	TP49	Not Given	1.20	1.30	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	17		97	29	15	14					
1551469	TP53	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		98	35	16	19					
1551470	TP58	Not Given	0.50	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	17		100	44	21	23					
1551463	WS42	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	23		92	39	20	19					
1551464	WS43	Not Given	2.00	2.45	D	Brown sandy CLAY	Atterberg 1 Point	19		100	44	22	22					
1551465	WS45	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		99	39	19	20					

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

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 PL Deputy Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 19/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

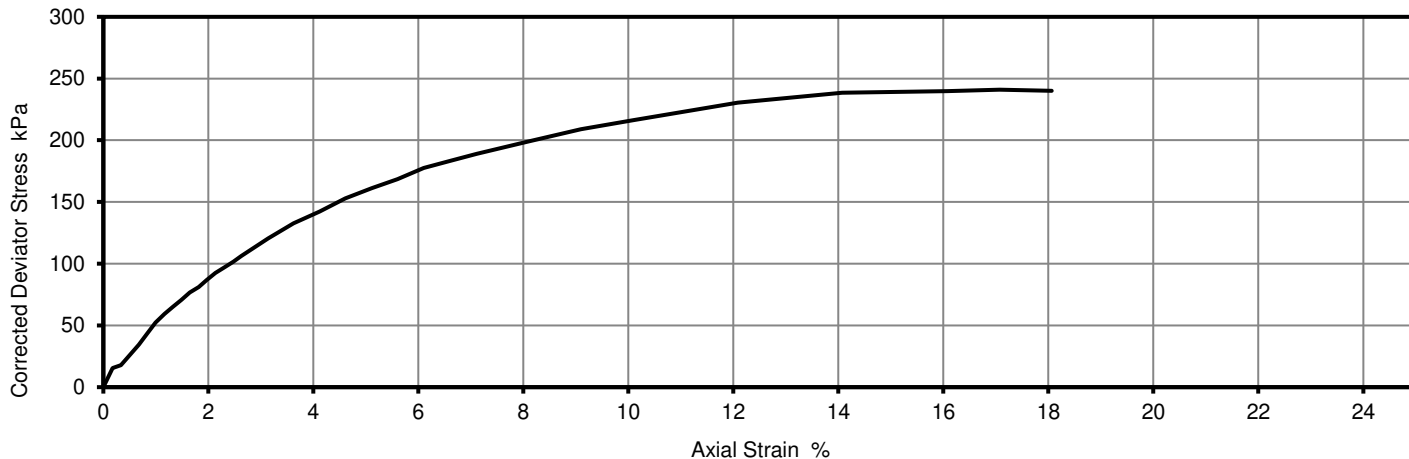
Laboratory Reference: 1551472
Hole No.: BH07
Sample Reference: Not Given
Sample Description: Brown CLAY

Depth Top [m]: 3.30
Depth Base [m]: 3.75
Sample Type: U

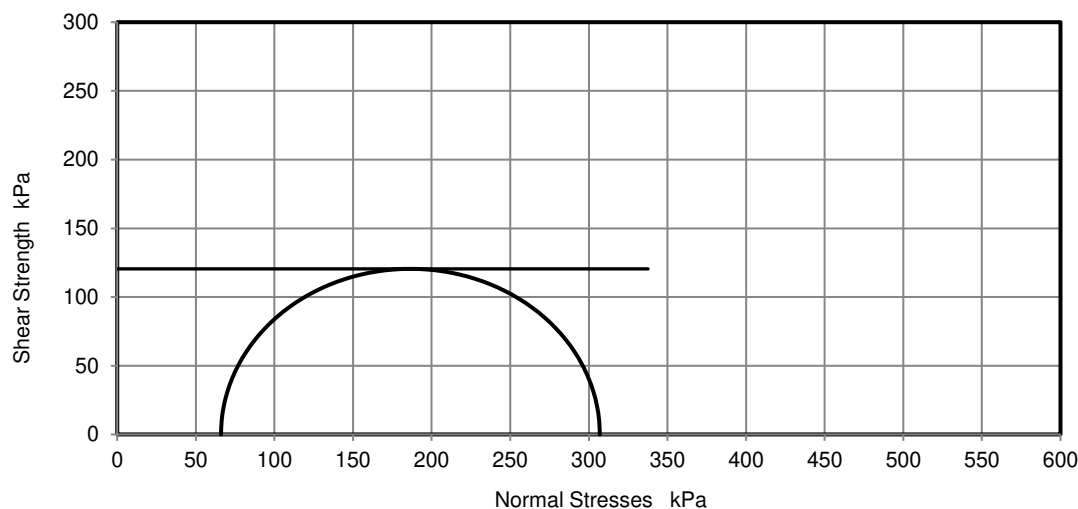
Test Number	1
Length	195.36 mm
Diameter	103.03 mm
Bulk Density	2.00 Mg/m ³
Moisture Content	24 %
Dry Density	1.61 Mg/m ³
Membrane Correction	0.75 kPa

Rate of Strain	2.00 %/min
Cell Pressure	66 kPa
Axial Strain at failure	17.1 %
Deviator Stress, (σ ₁ - σ ₃) _f	241 kPa
Undrained Shear Strength, c _u	120 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.23 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

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PL Deputy Head of Geotechnical Section
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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 19/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

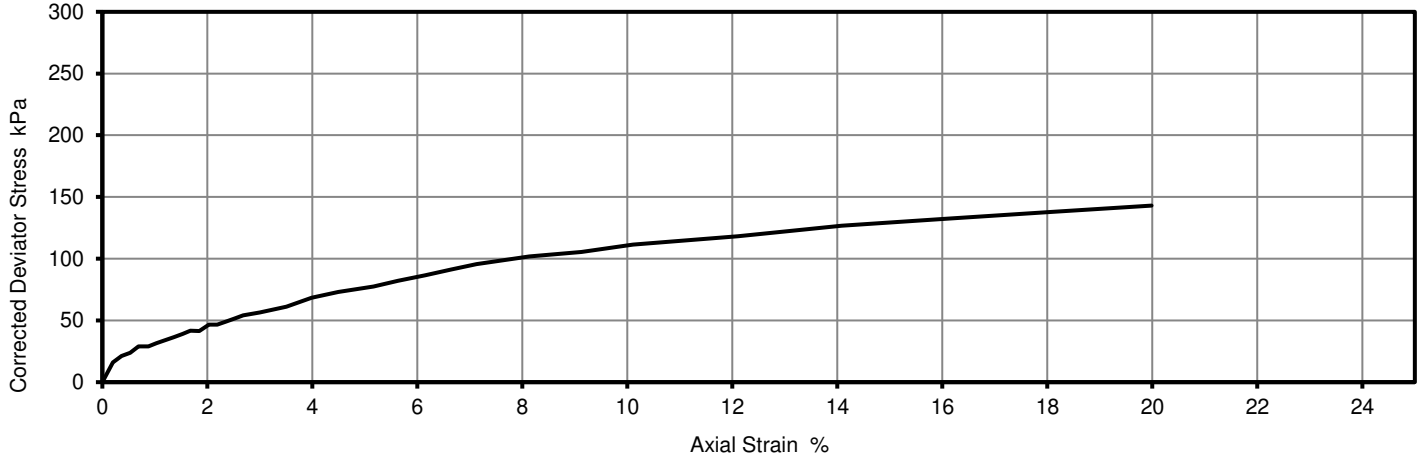
Laboratory Reference: 1551473
Hole No.: BH07
Sample Reference: Not Given
Sample Description: Brown CLAY

Depth Top [m]: 6.90
Depth Base [m]: 7.35
Sample Type: U

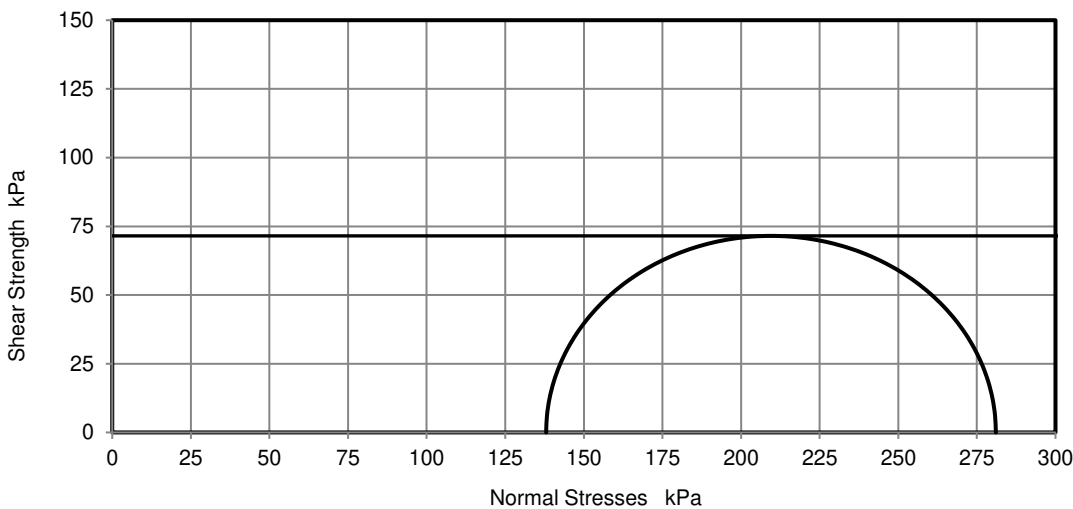
Test Number	1
Length	139.46 mm
Diameter	69.23 mm
Bulk Density	2.07 Mg/m ³
Moisture Content	22 %
Dry Density	1.70 Mg/m ³
Membrane Correction	1.50 kPa

Rate of Strain	2.00 %/min
Cell Pressure	138 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	143 kPa
Undrained Shear Strength, c_u	72 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.27 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 4, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17477
Date Sampled: 26/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

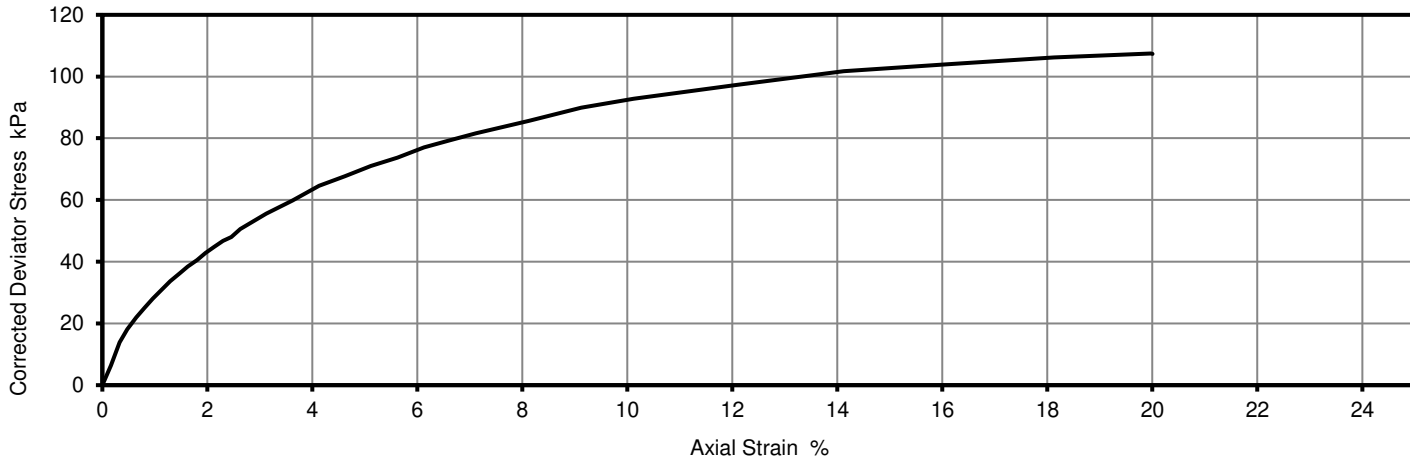
Laboratory Reference: 1551474
Hole No.: CP04
Sample Reference: Not Given
Sample Description: Brown CLAY

Depth Top [m]: 5.00
Depth Base [m]: 5.45
Sample Type: U

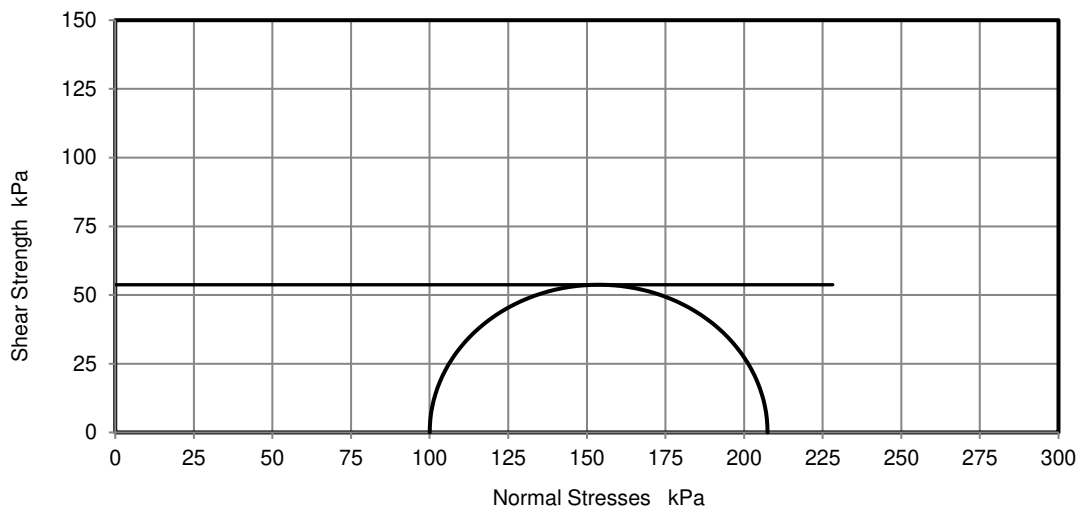
Test Number	1
Length	196.92 mm
Diameter	103.05 mm
Bulk Density	2.15 Mg/m ³
Moisture Content	16 %
Dry Density	1.86 Mg/m ³
Membrane Correction	0.97 kPa

Rate of Strain	2.00 %/min
Cell Pressure	100 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	107 kPa
Undrained Shear Strength, c_u	54 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.26 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15225
Date Sampled: 17/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 5, The Lanes. Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

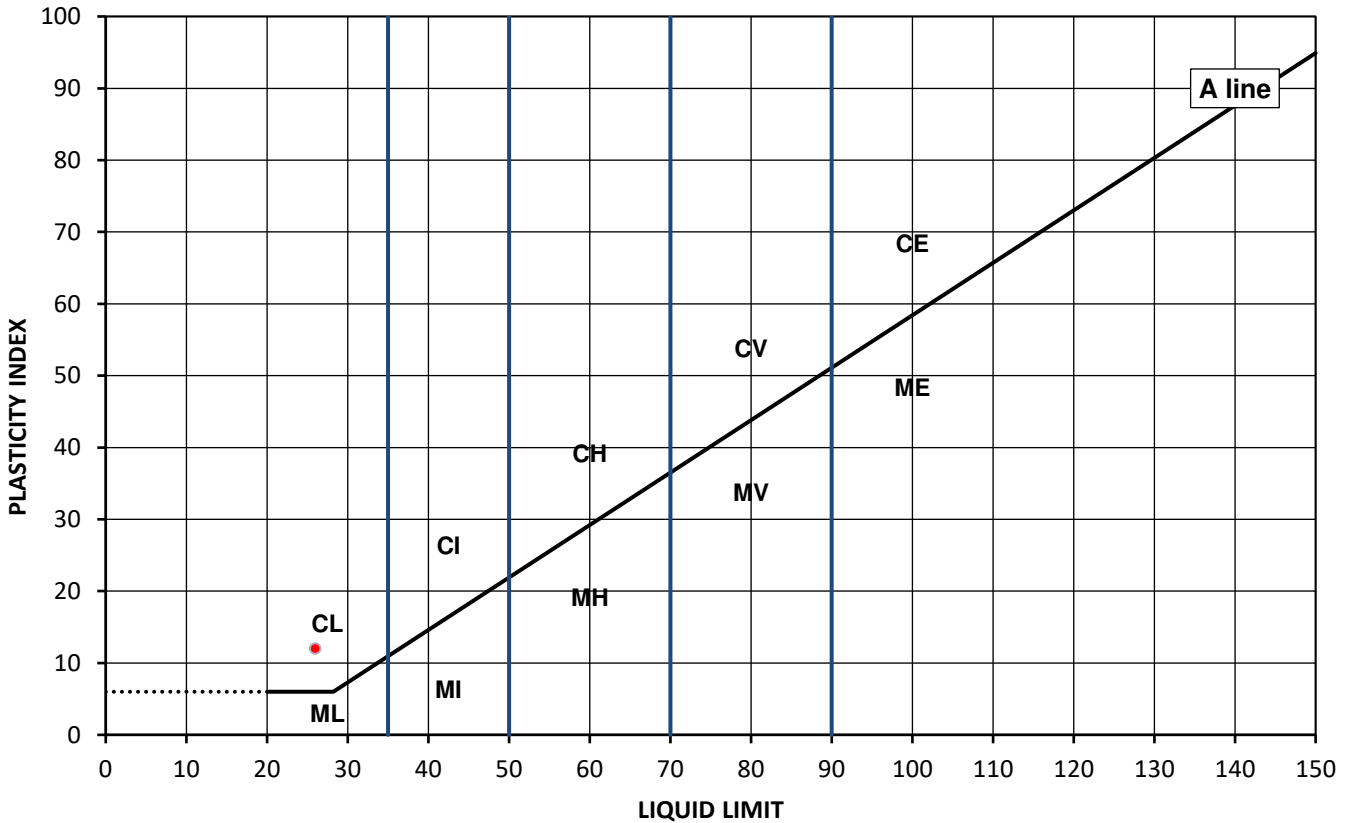
Test Results:

Laboratory Reference: 1539626
Hole No.: WS52
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly very sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
13	26	14	12	96



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 02/07/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15225
Date Sampled: 16/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 5, The Lanes. Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

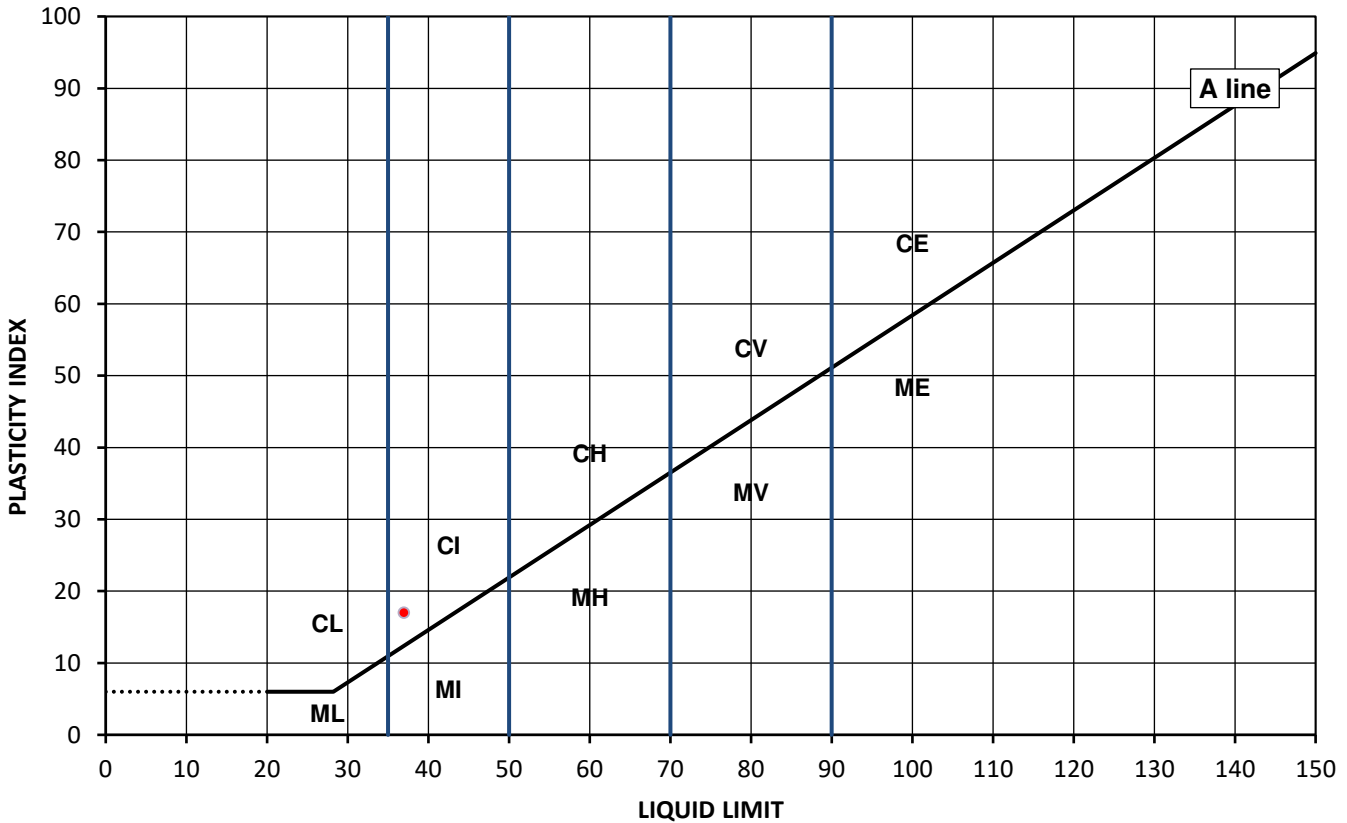
Test Results:

Laboratory Reference: 1539627
Hole No.: TP65
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
22	37	20	17	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15225
Date Sampled: 16/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 5, The Lanes. Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

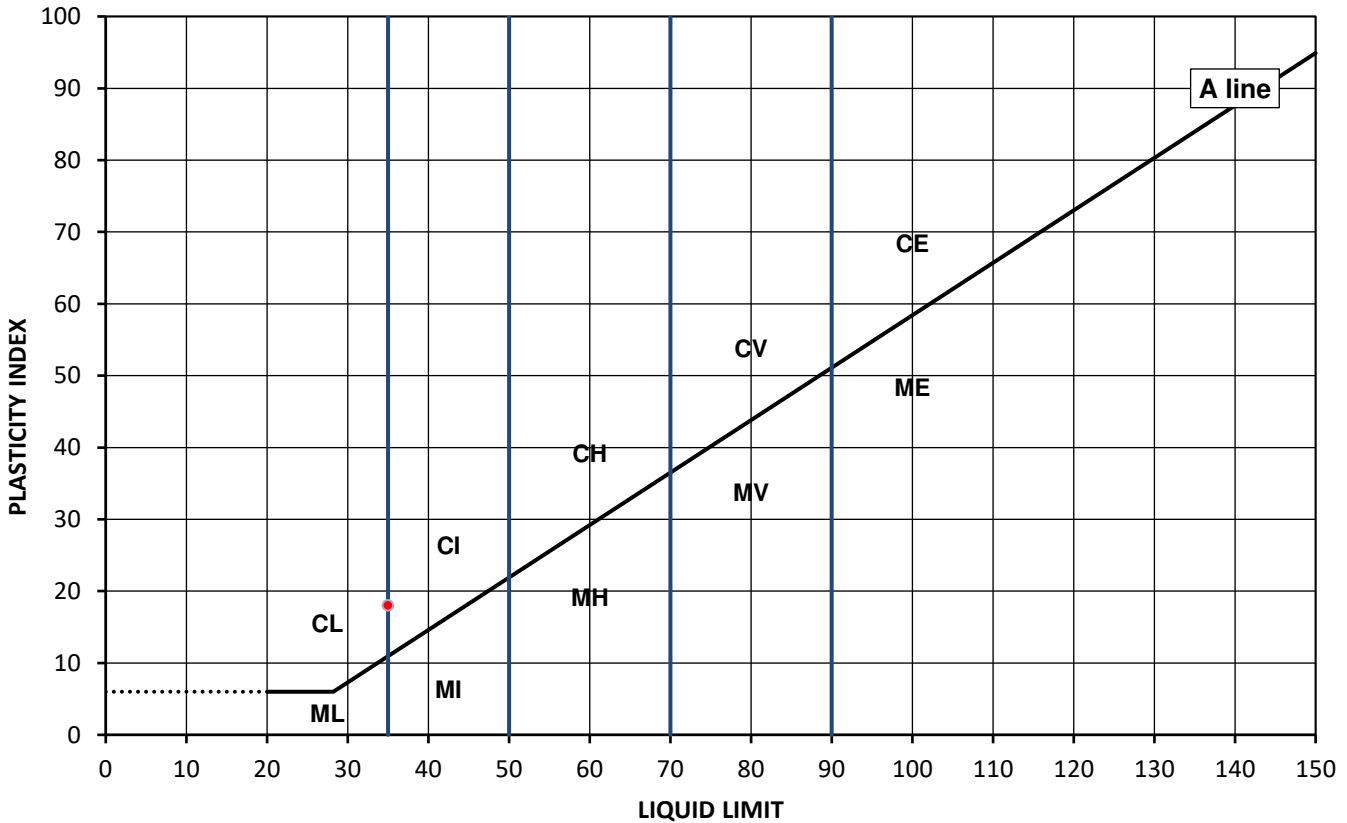
Test Results:

Laboratory Reference: 1539628
Hole No.: TP67
Sample Reference: Not Given
Soil Description: Brown to grey sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	35	17	18	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15225
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 5, The Lanes. Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

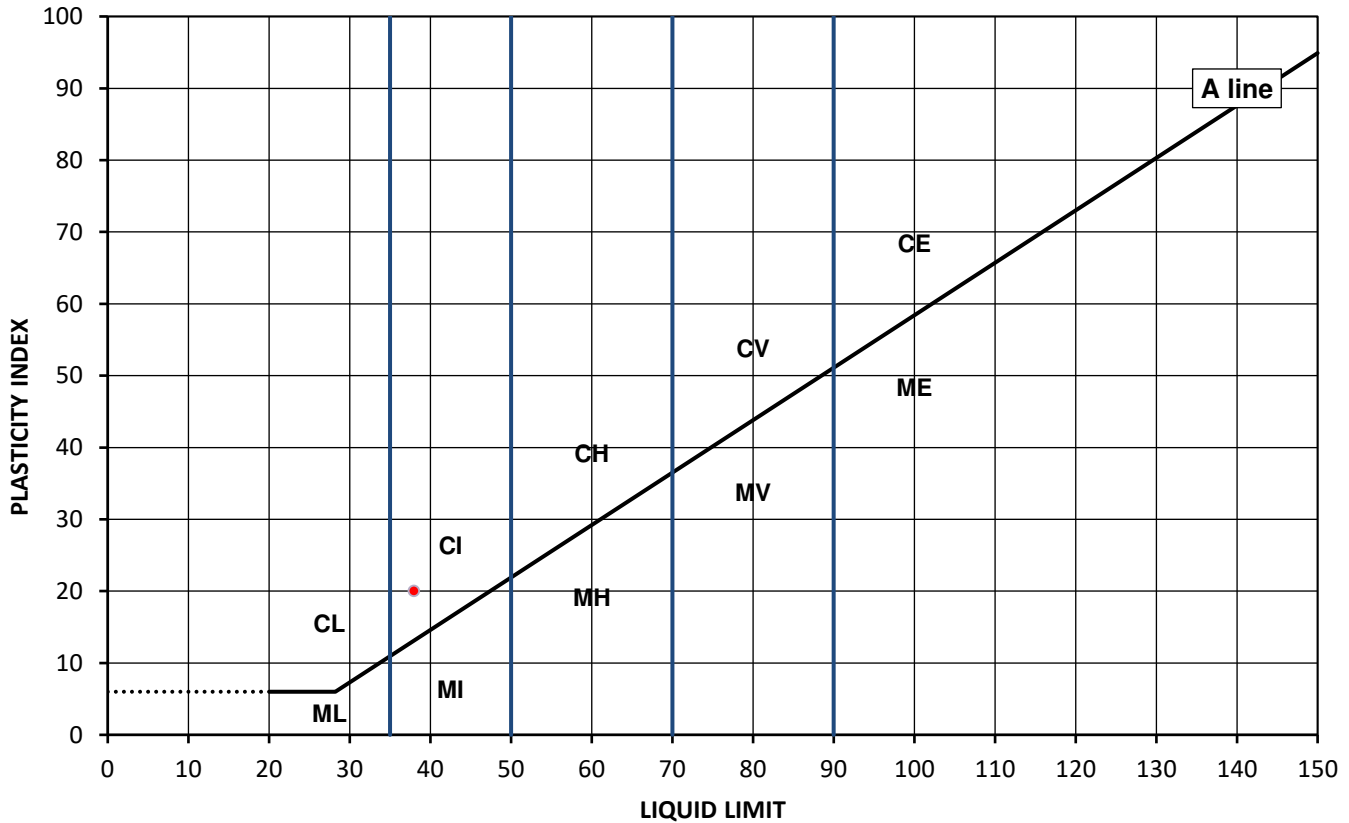
Test Results:

Laboratory Reference: 1539629
Hole No.: BH08
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 2.20
Depth Base [m]: 2.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
14	38	18	20	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Summary of Classification Test Results

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 5, The Lanes. Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-15225
Date Sampled: 15/06 - 17/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL	PL	PI	bulk	dry	PD			
1539629	BH08	Not Given	2.20	2.65	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	14		99	38	18	20						
1539627	TP65	Not Given	1.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	22		99	37	20	17						
1539628	TP67	Not Given	2.00	Not Given	D	Brown to grey sandy CLAY	Atterberg 1 Point	15		100	35	17	18						
1539626	WS52	Not Given	0.50	Not Given	D	Dark brown slightly gravelly very sandy CLAY	Atterberg 1 Point	13		96	26	14	12						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-15225
 Date Sampled: 15/06/2020
 Date Received: 19/06/2020
 Date Tested: 30/06/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 5, The Lanes. Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

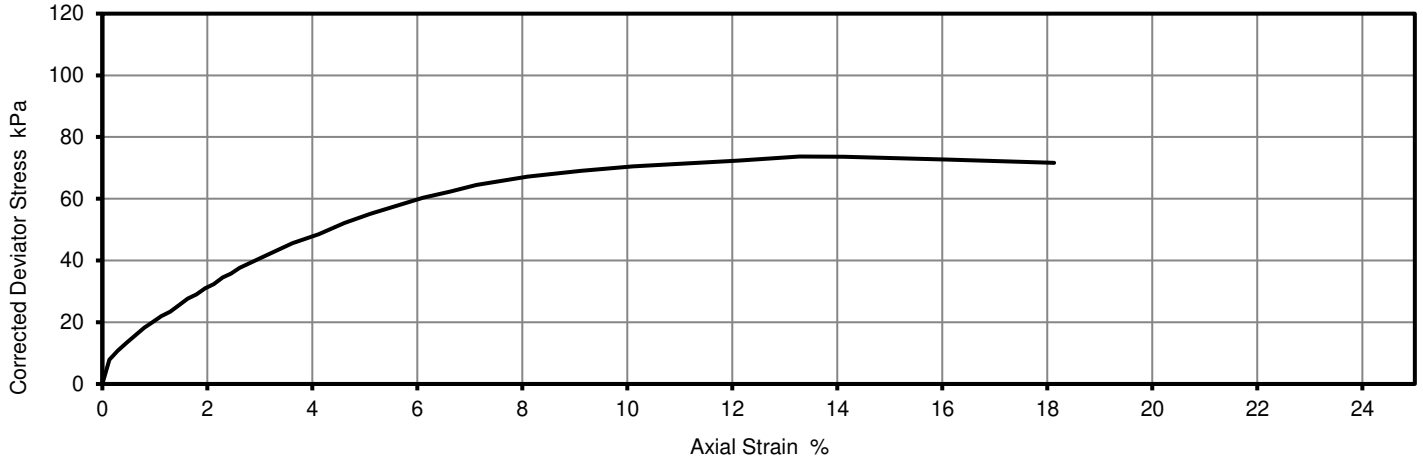
Laboratory Reference: 1539630
 Hole No.: BH08
 Sample Reference: Not Given
 Sample Description: Reddish brown CLAY

Depth Top [m]: 3.20
 Depth Base [m]: 3.65
 Sample Type: U

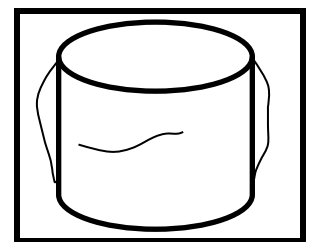
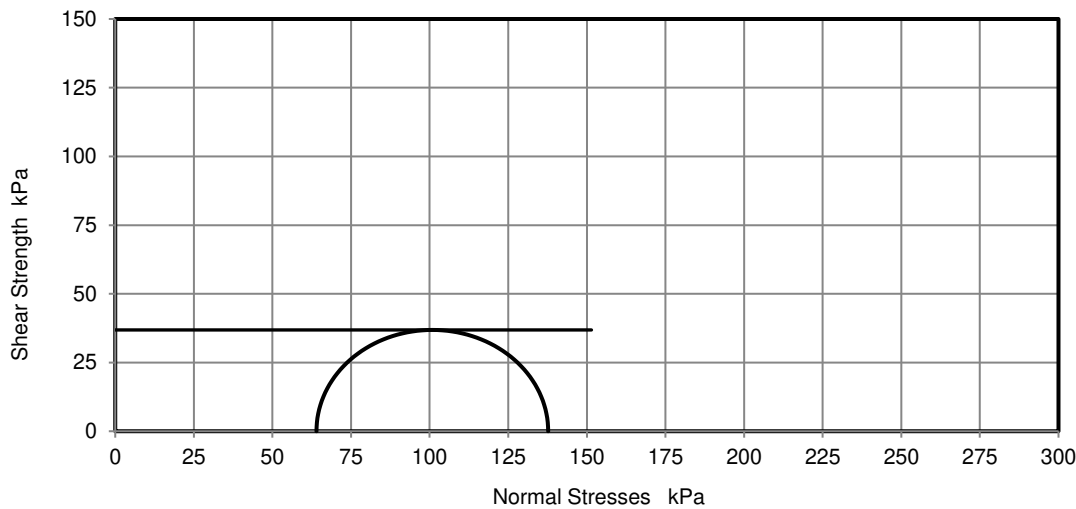
Test Number	1
Length	194.77 mm
Diameter	101.69 mm
Bulk Density	1.91 Mg/m ³
Moisture Content	32 %
Dry Density	1.45 Mg/m ³
Membrane Correction	0.62 kPa

Rate of Strain	2.00 %/min
Cell Pressure	64 kPa
Axial Strain at failure	13.3 %
Deviator Stress, (σ ₁ - σ ₃) _f	74 kPa
Undrained Shear Strength, c _u	37 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.23 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks: Unable to take a photo.

Signed:

Monika Janoszek
 PL Deputy Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-15225
 Date Sampled: 15/06/2020
 Date Received: 19/06/2020
 Date Tested: 30/06/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 5, The Lanes. Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

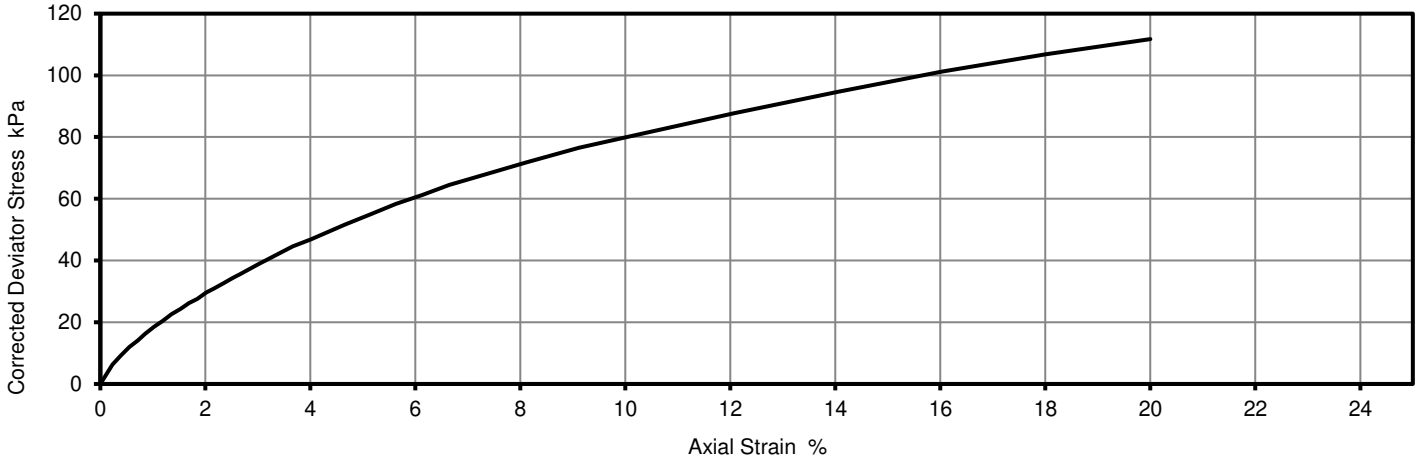
Laboratory Reference: 1539631
 Hole No.: BH08
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 7.00
 Depth Base [m]: 7.45
 Sample Type: U

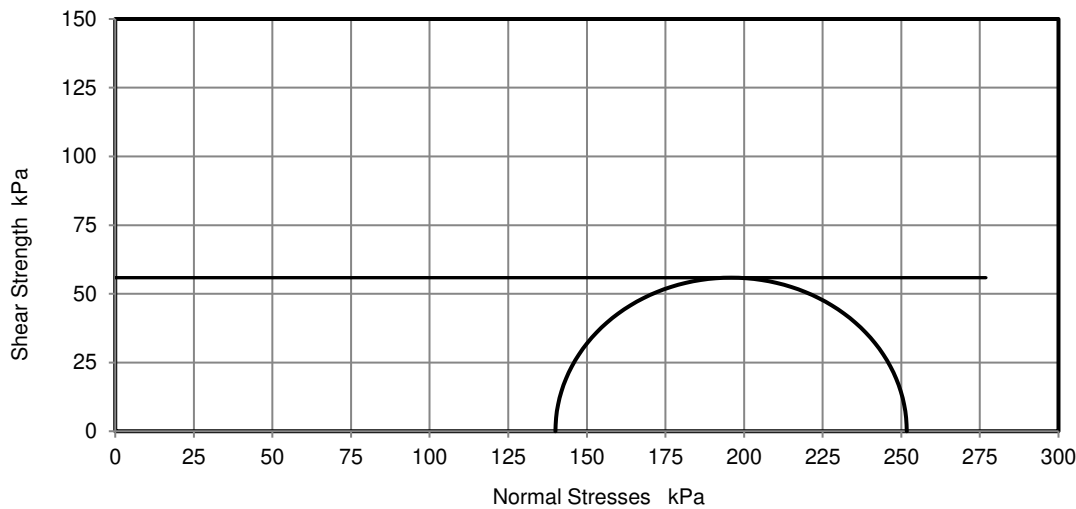
Test Number	1
Length	202.80 mm
Diameter	101.52 mm
Bulk Density	2.20 Mg/m ³
Moisture Content	18 %
Dry Density	1.87 Mg/m ³
Membrane Correction	1.15 kPa

Rate of Strain	1.97 %/min
Cell Pressure	140 kPa
Axial Strain at failure	19.5 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	112 kPa
Undrained Shear Strength, c_u	56 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.31 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Monika Janoszek

Monika Janoszek
 PL Deputy Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 6, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-15232
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

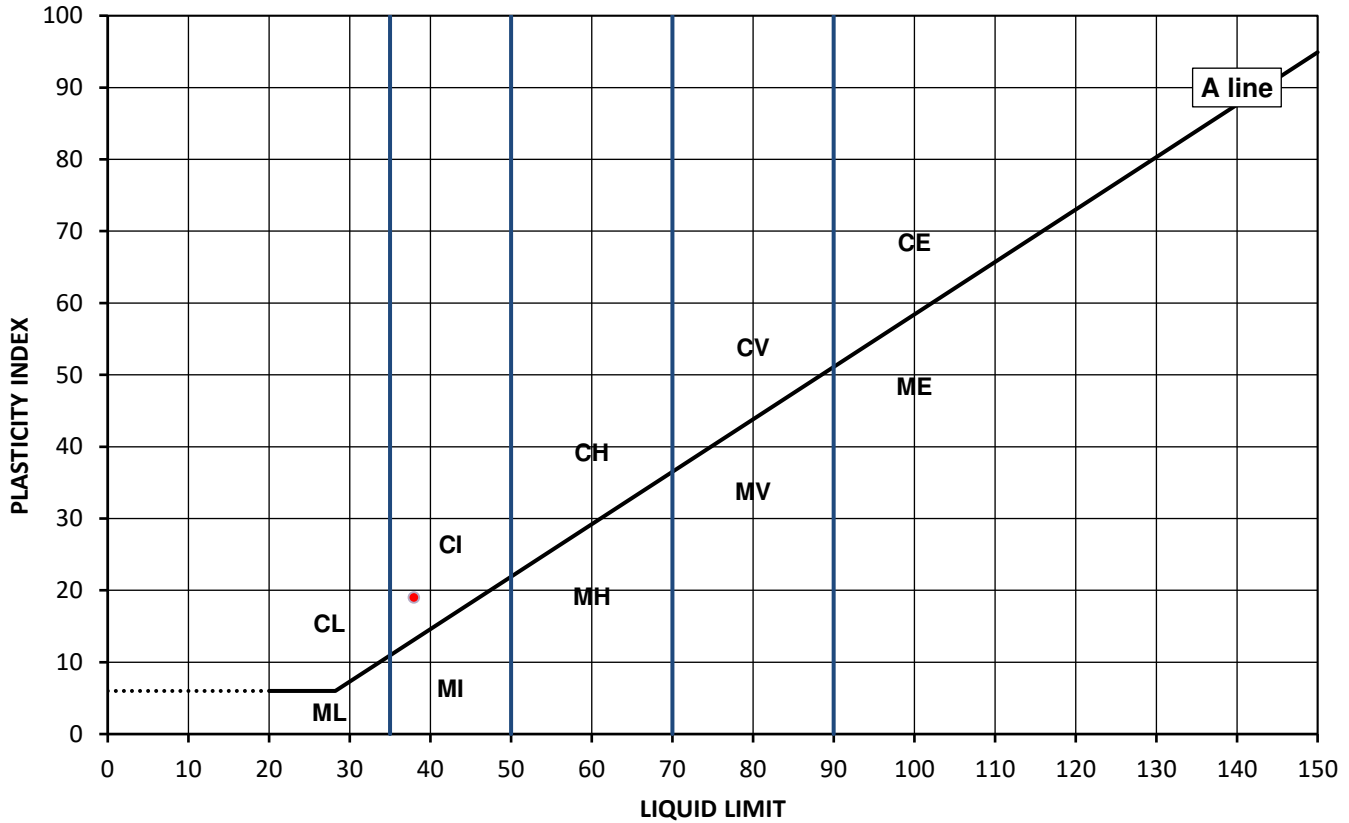
Test Results:

Laboratory Reference: 1539644
Hole No.: WS55
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.75
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	38	19	19	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 6, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-15232
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

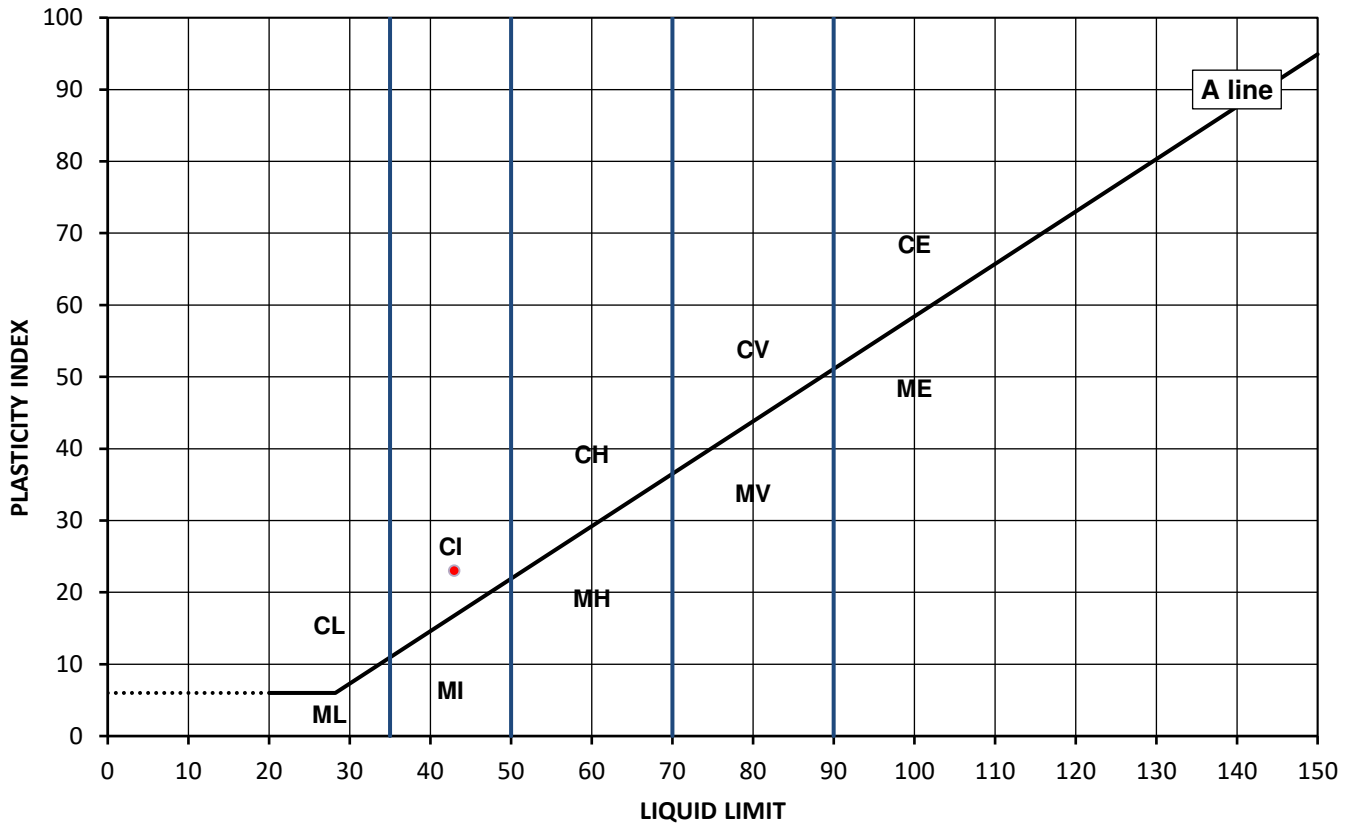
Test Results:

Laboratory Reference: 1539645
Hole No.: TP72
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 2.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
21	43	20	23	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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4041

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
Site Address: Area 6, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client Reference: C4259
Job Number: 20-15232
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %	
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL %	PL %	PI %	bulk	dry	PD		
			m	m										Mg/m3	Mg/m3	Mg/m3		
1539645	TP72	Not Given	2.50	Not Given	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	21		99	43	20	23					
1539644	WS55	Not Given	1.20	1.75	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		98	38	19	19					

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14052
Date Sampled: 03/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 7 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

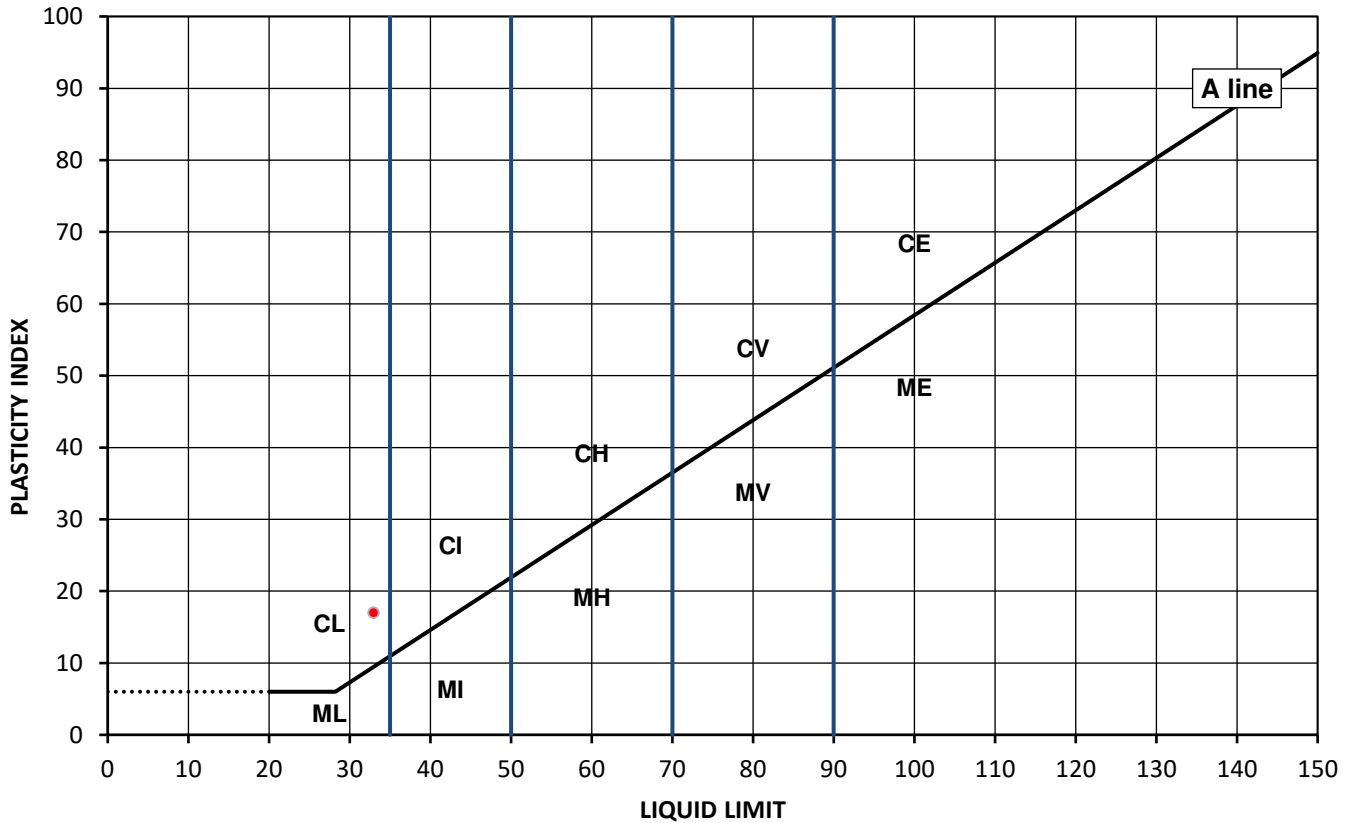
Test Results:

Laboratory Reference: 1533325
Hole No.: TP74
Sample Reference: Not Given
Soil Description: Brownish grey slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	33	16	17	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14052
Date Sampled: 03/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 7 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

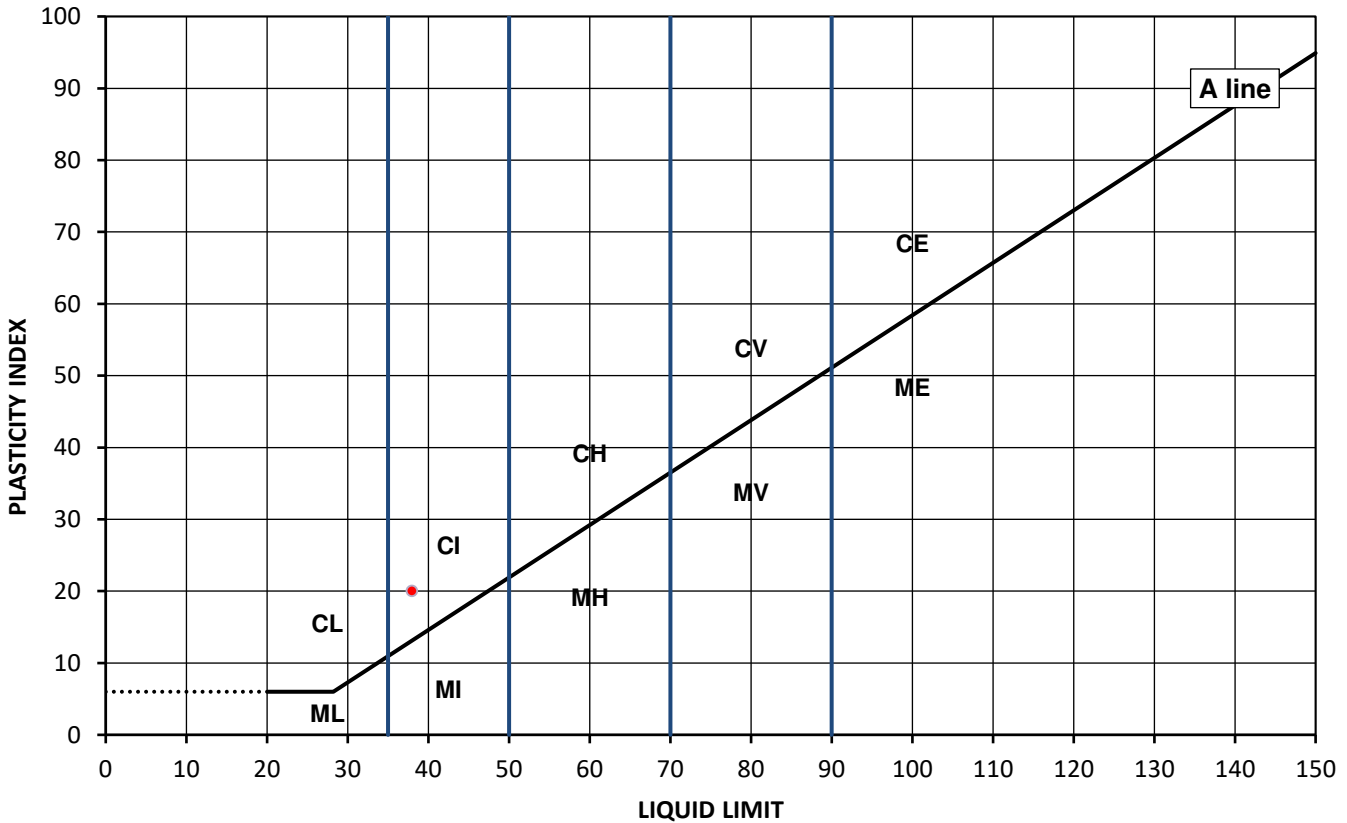
Test Results:

Laboratory Reference: 1533326
Hole No.: TP76
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	38	18	20	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Summary of Classification Test Results

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 7 The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-14052
Date Sampled: 03/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um	LL	PL	PI	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
1533325	TP74	Not Given	2.00	Not Given	D	Brownish grey slightly gravelly very sandy CLAY	Atterberg 1 Point	15		97	33	16	17				
1533326	TP76	Not Given	1.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	19		100	38	18	20				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 08/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

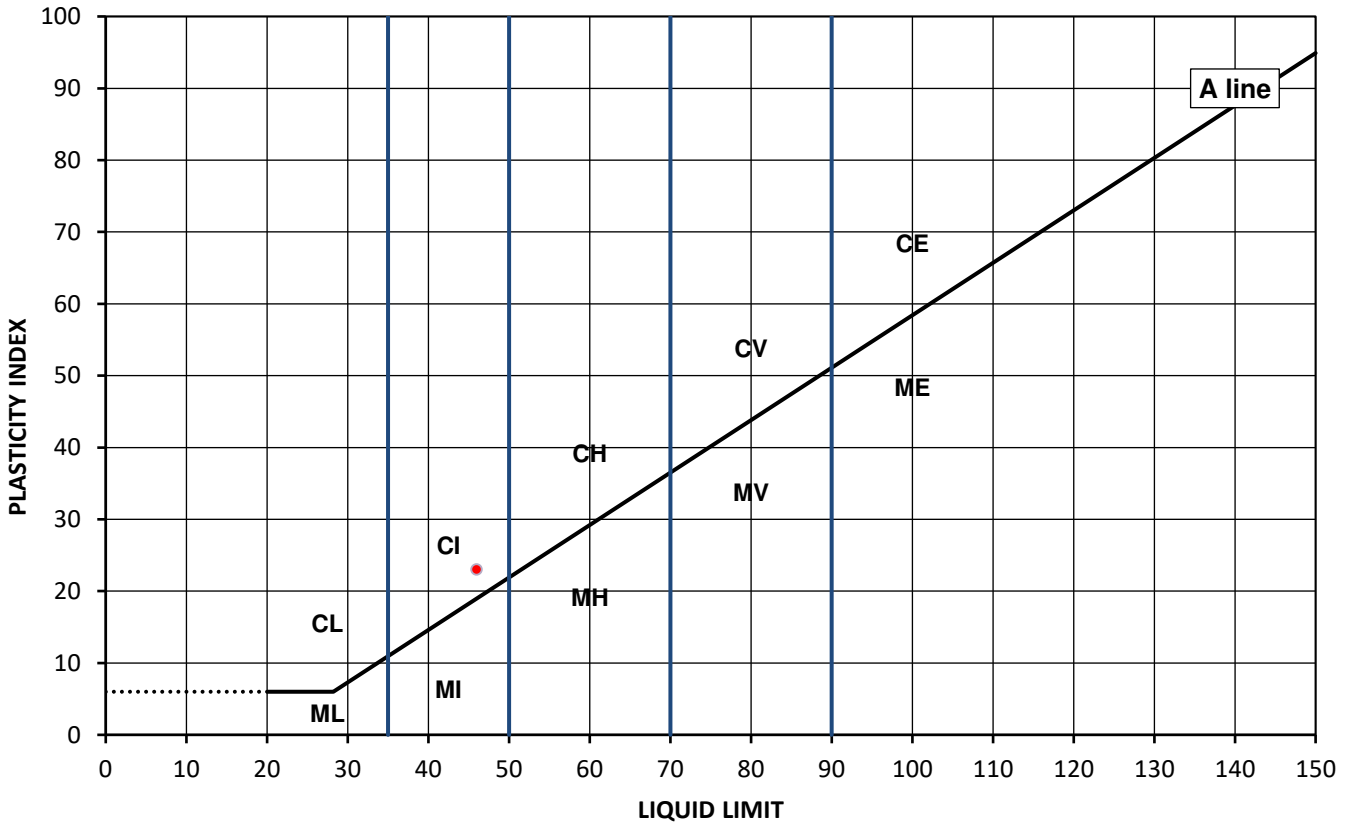
Test Results:

Laboratory Reference: 1539515
Hole No.: WS58
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
31	46	23	23	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 12/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

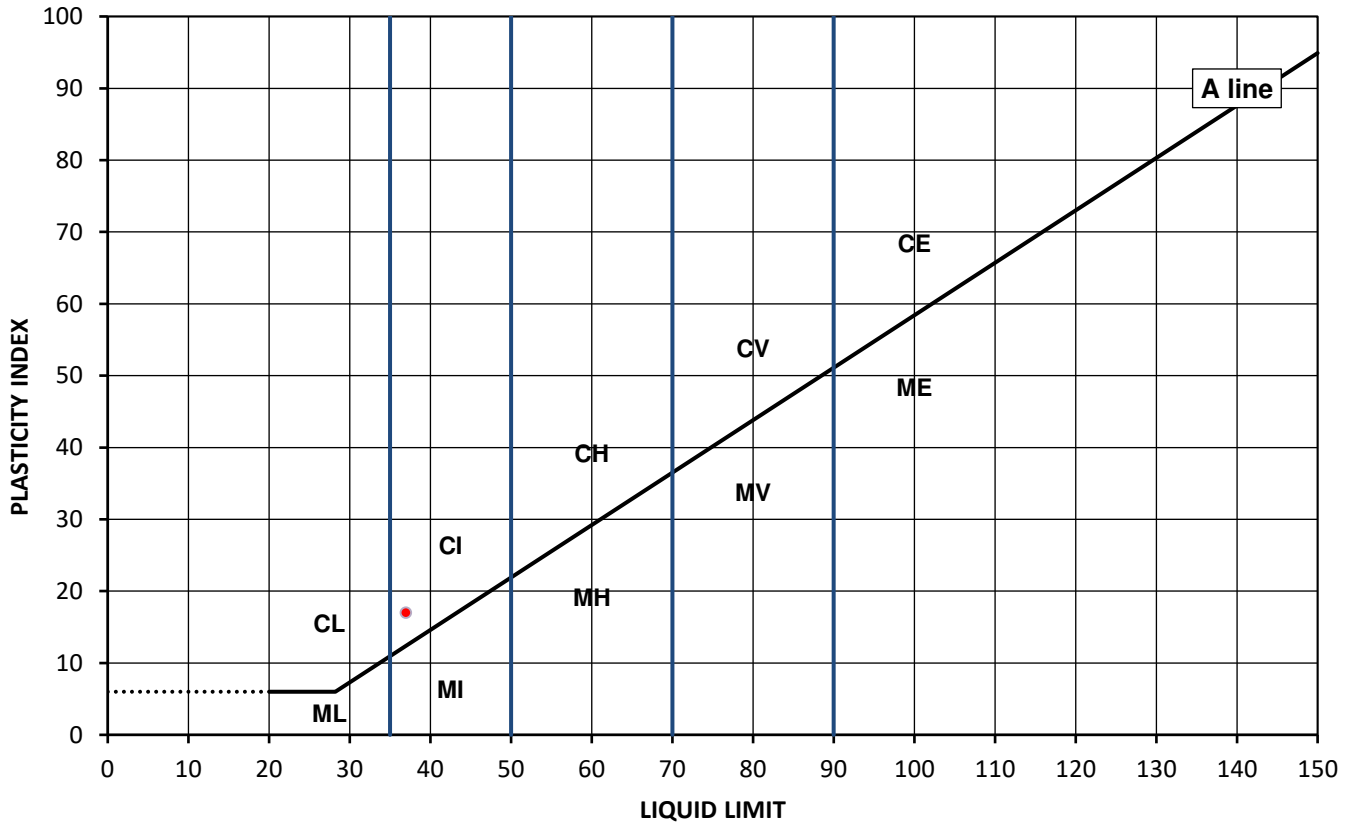
Test Results:

Laboratory Reference: 1539516
Hole No.: WS60
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	37	20	17	96



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 10/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

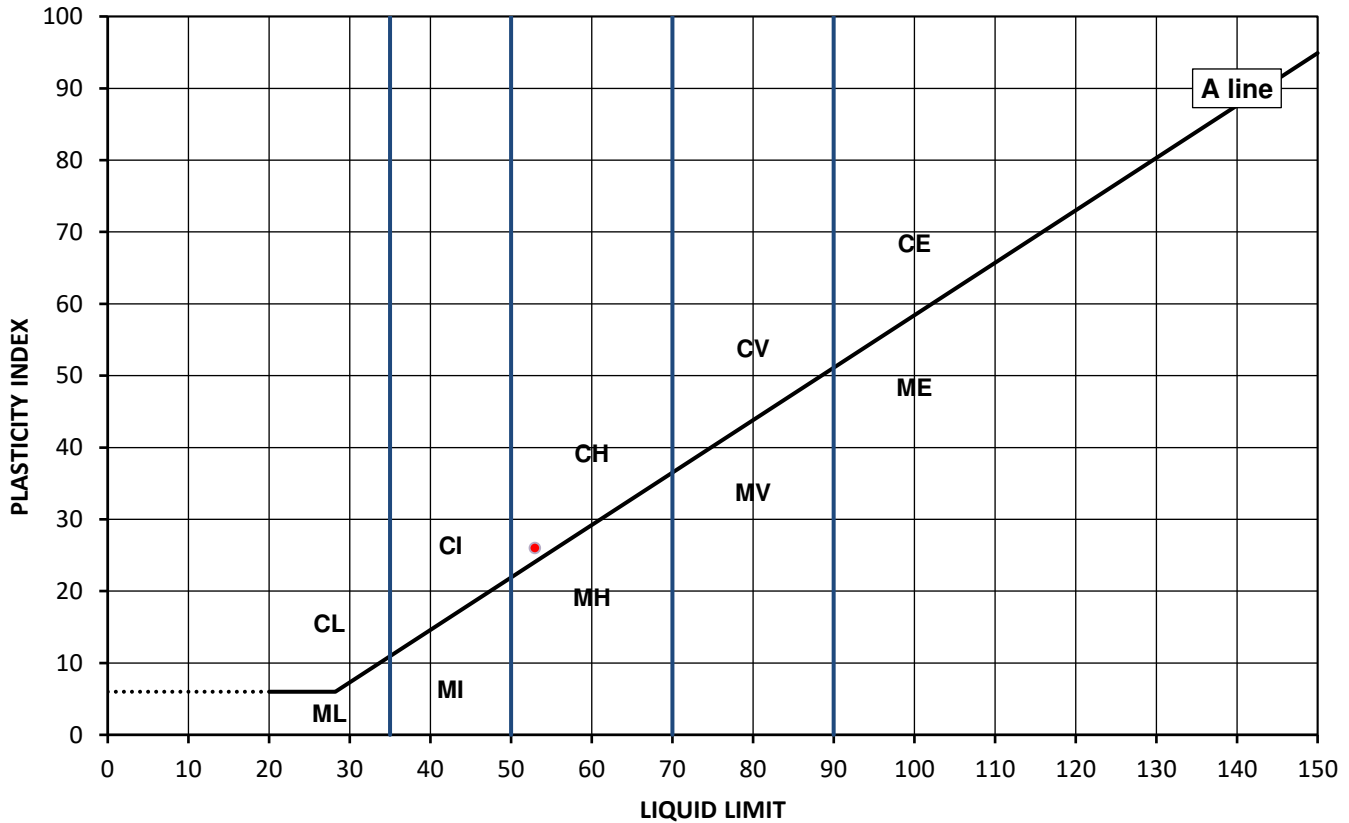
Test Results:

Laboratory Reference: 1539517
Hole No.: WS69
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
26	53	27	26	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 12/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

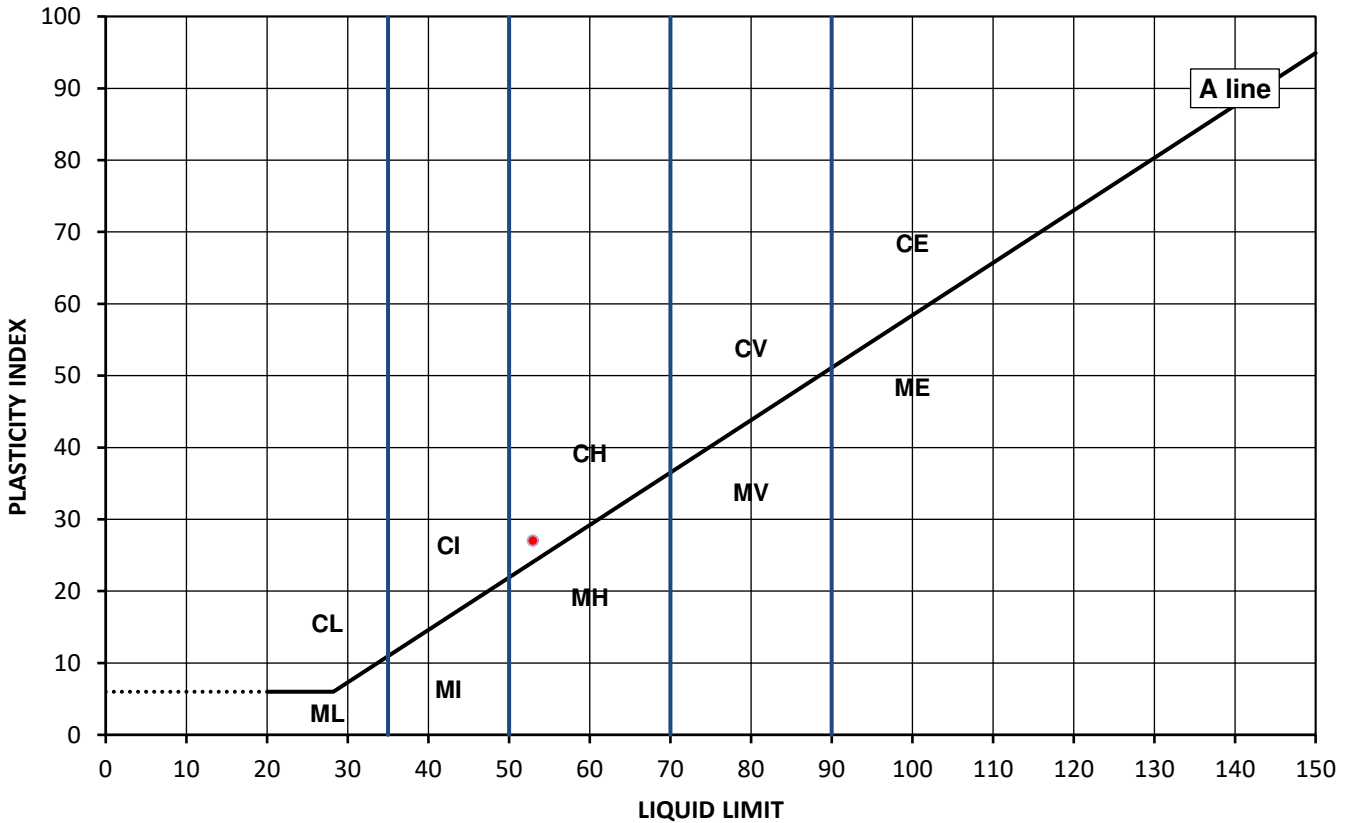
Test Results:

Laboratory Reference: 1539518
Hole No.: TP84
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
24	53	26	27	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 12/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

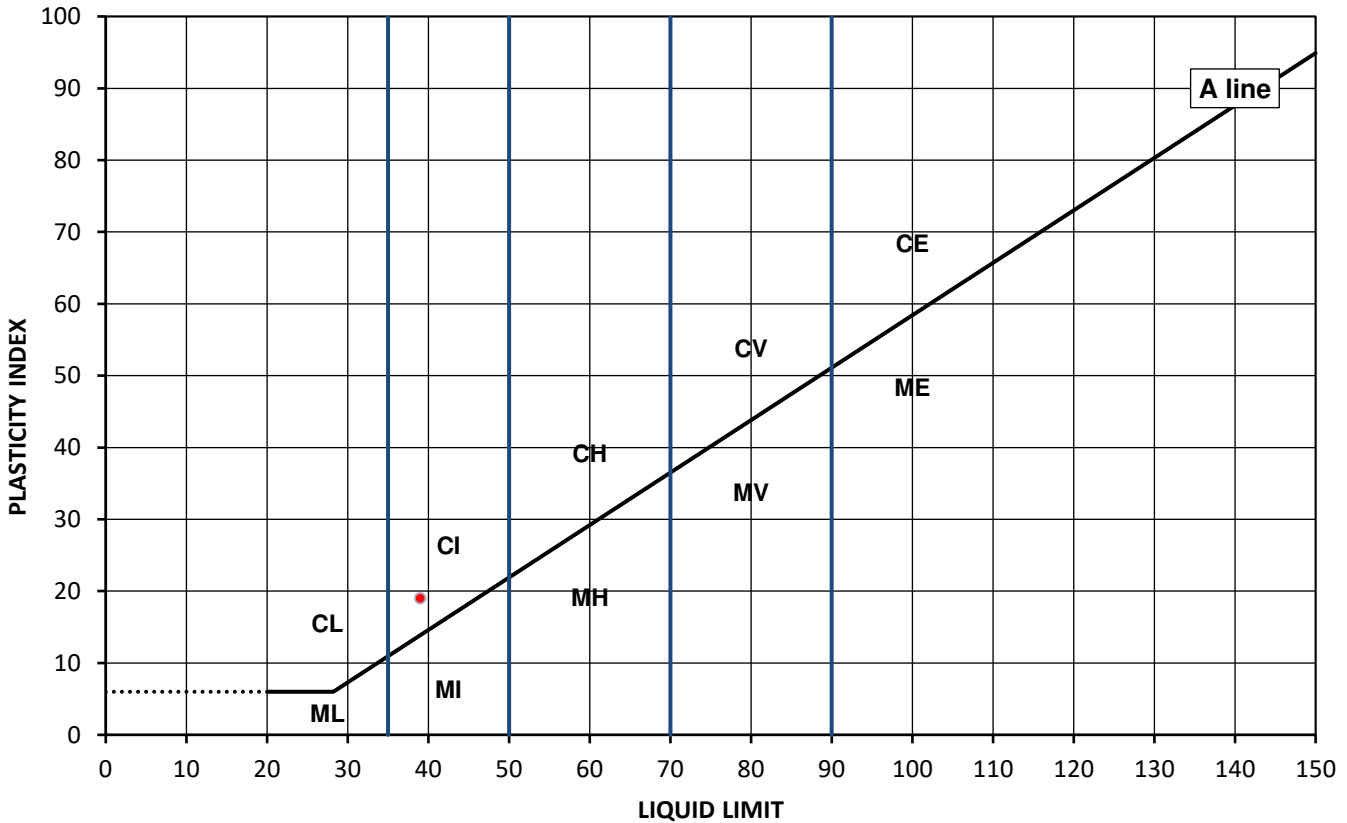
Test Results:

Laboratory Reference: 1539519
Hole No.: TP86
Sample Reference: Not Given
Soil Description: Dark brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	39	20	19	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 12/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

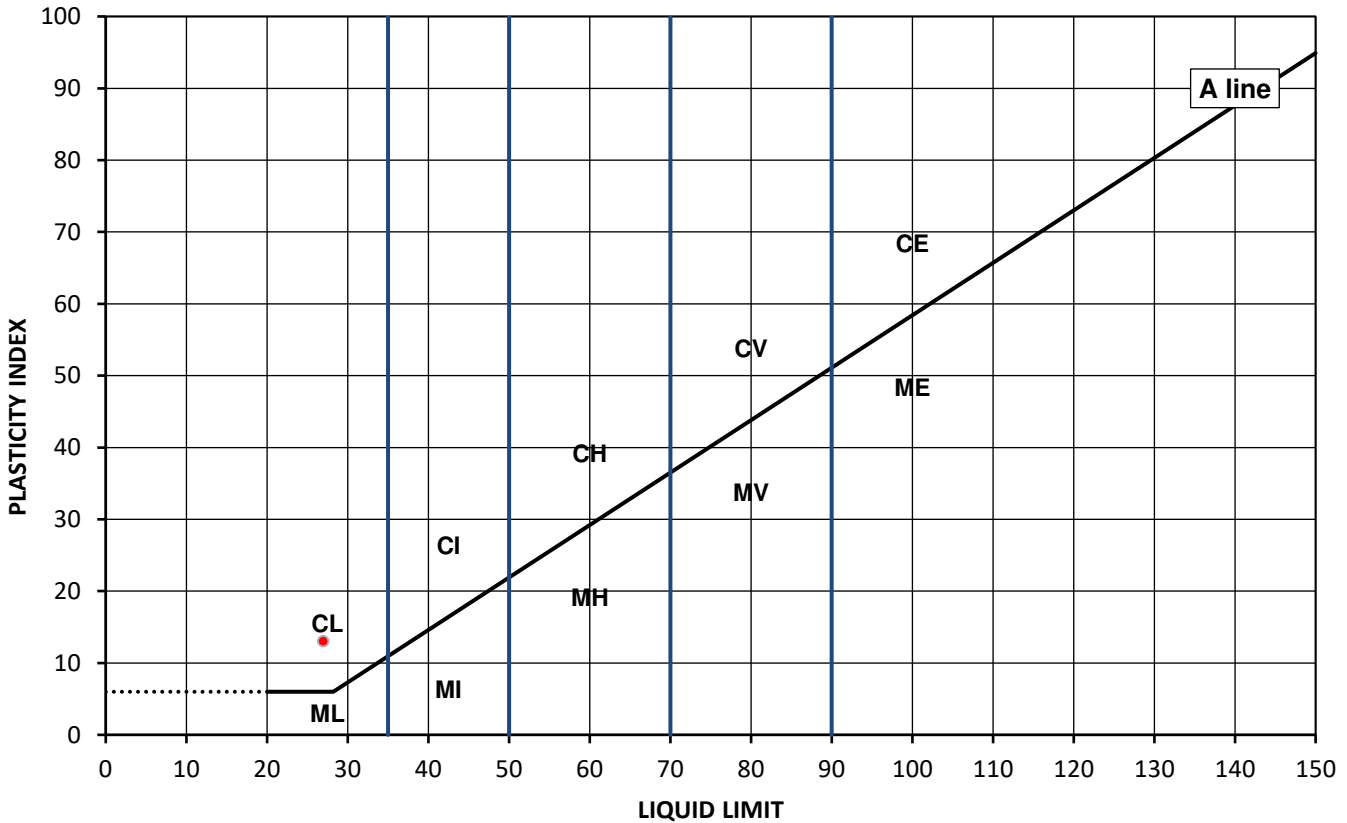
Test Results:

Laboratory Reference: 1539520
Hole No.: TP87
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
12	27	14	13	91



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Deputy Head of Geotechnical Section
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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 12/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

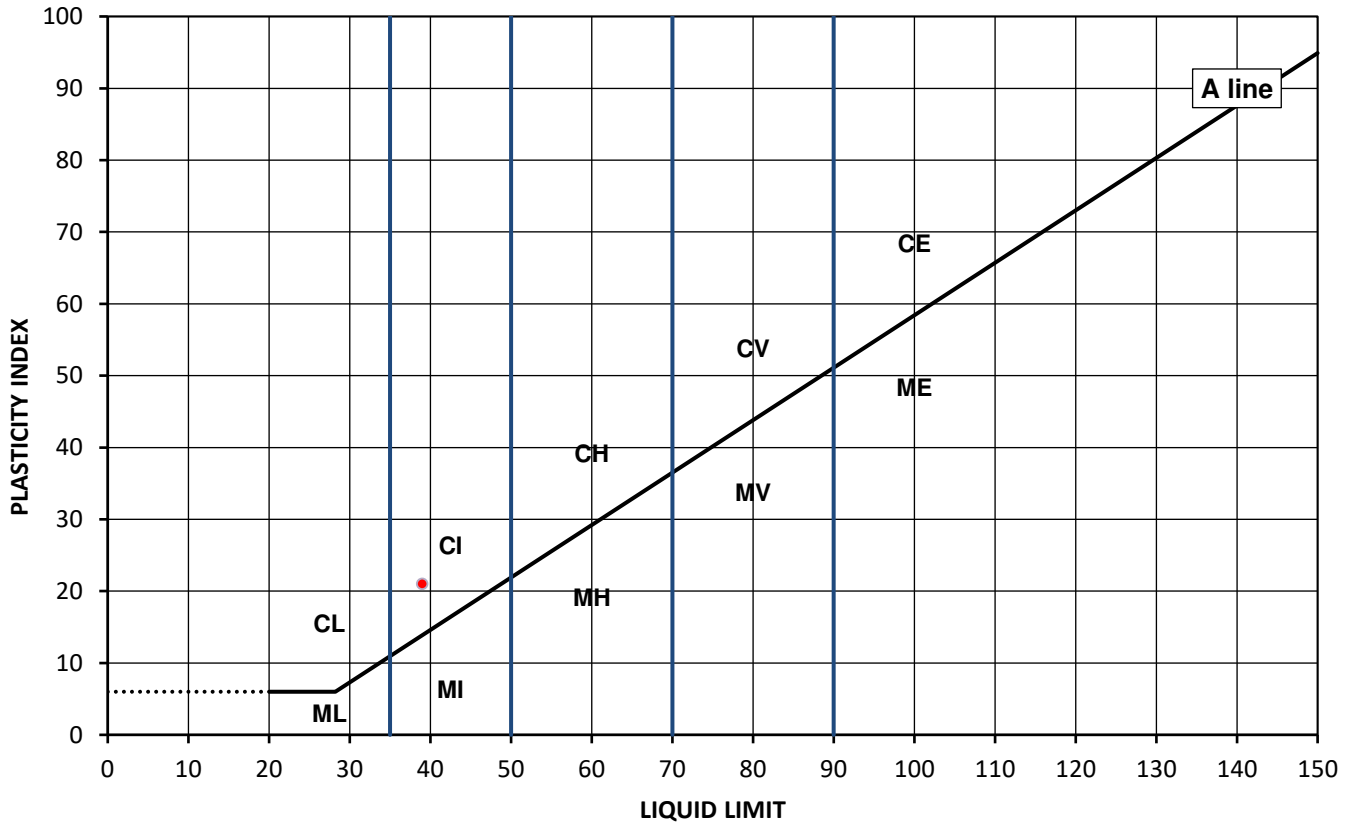
Test Results:

Laboratory Reference: 1539521
Hole No.: TP88
Sample Reference: Not Given
Soil Description: Dark brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	39	18	21	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 11/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

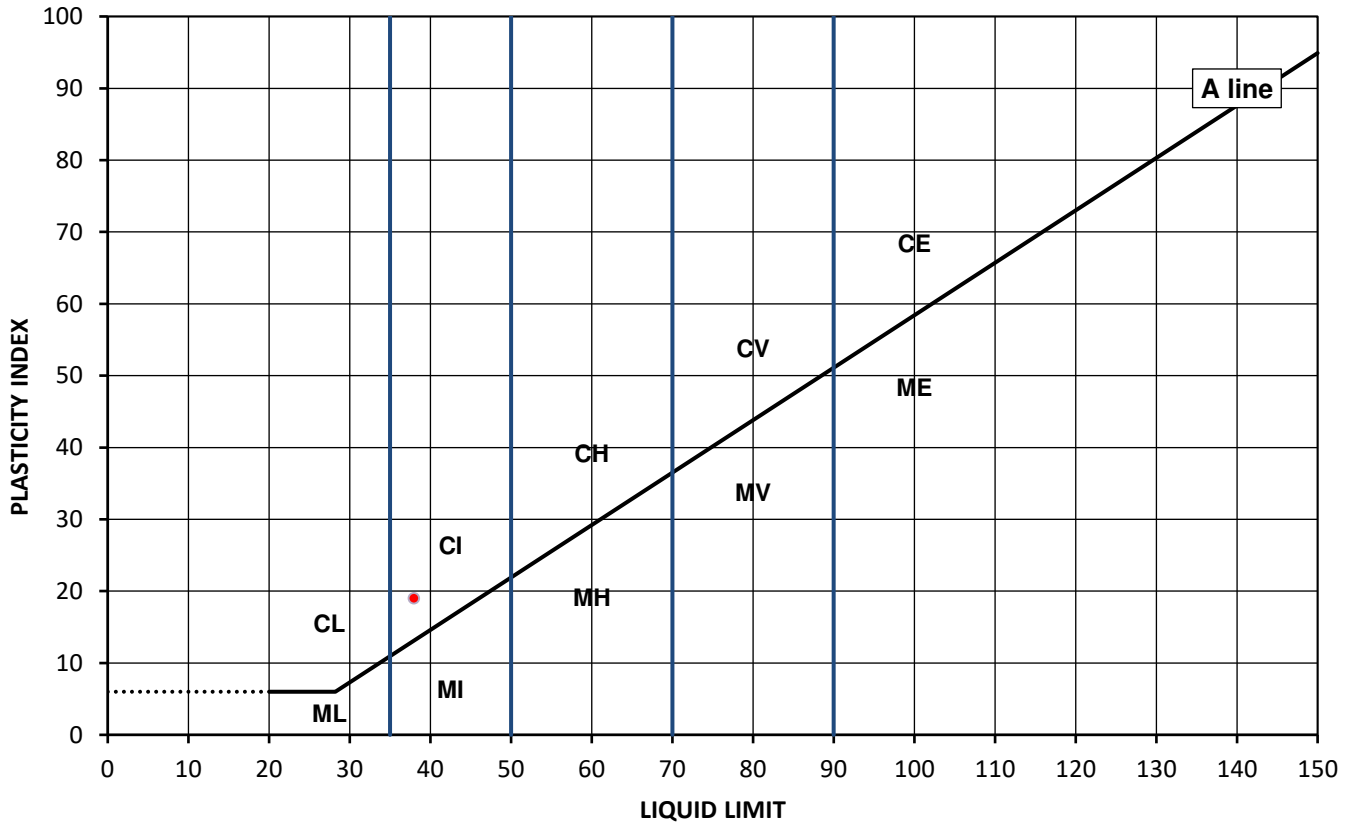
Test Results:

Laboratory Reference: 1539522
Hole No.: TP90
Sample Reference: Not Given
Soil Description: Dark brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	38	19	19	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 8, The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-15186
Date Sampled: 08/06 - 12/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um %	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
1539518	TP84	Not Given	2.00	Not Given	D	Dark brown slightly sandy CLAY	Atterberg 1 Point	24		100	53	26	27				
1539519	TP86	Not Given	1.00	Not Given	D	Dark brown sandy CLAY	Atterberg 1 Point	15		100	39	20	19				
1539520	TP87	Not Given	2.00	Not Given	D	Dark brown slightly gravelly very sandy CLAY	Atterberg 1 Point	12		91	27	14	13				
1539521	TP88	Not Given	1.00	Not Given	D	Dark brown sandy CLAY	Atterberg 1 Point	18		100	39	18	21				
1539522	TP90	Not Given	1.00	Not Given	D	Dark brown sandy CLAY	Atterberg 1 Point	19		100	38	19	19				
1539515	WS58	Not Given	0.50	Not Given	D	Dark brown slightly sandy CLAY	Atterberg 1 Point	31		100	46	23	23				
1539516	WS60	Not Given	1.20	1.65	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		96	37	20	17				
1539517	WS69	Not Given	2.00	2.45	D	Dark brown slightly sandy CLAY	Atterberg 1 Point	26		100	53	27	26				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP
 Contact: Nicola Swallow
 Site Address: Area 8, The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-15186
 Date Sampled: 09/06/2020
 Date Received: 19/06/2020
 Date Tested: 01/06/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

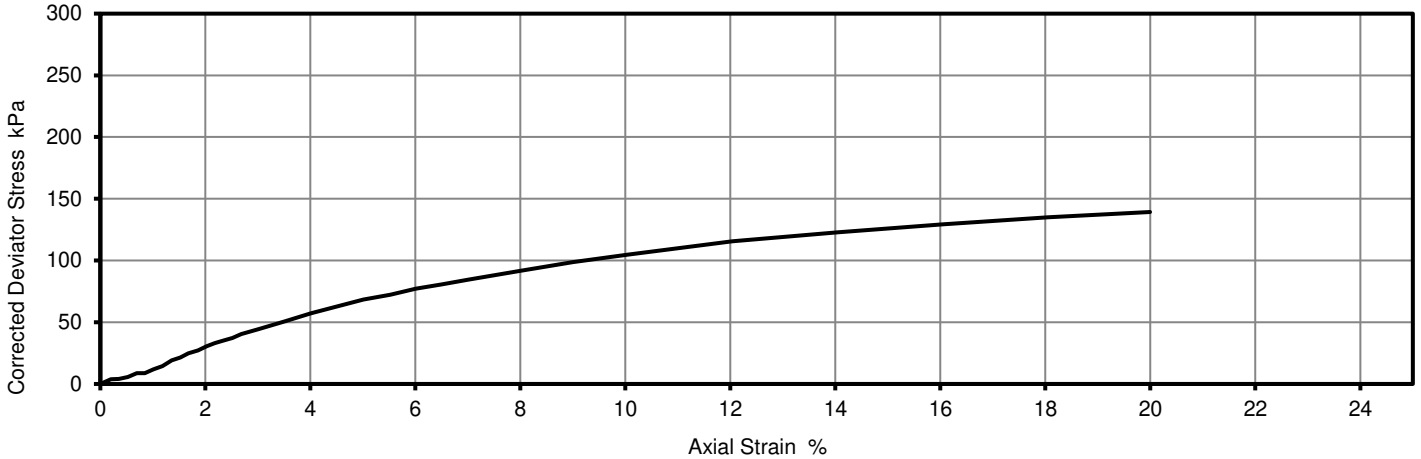
Laboratory Reference: 1539512
 Hole No.: BH09
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 5.50
 Depth Base [m]: 5.95
 Sample Type: U

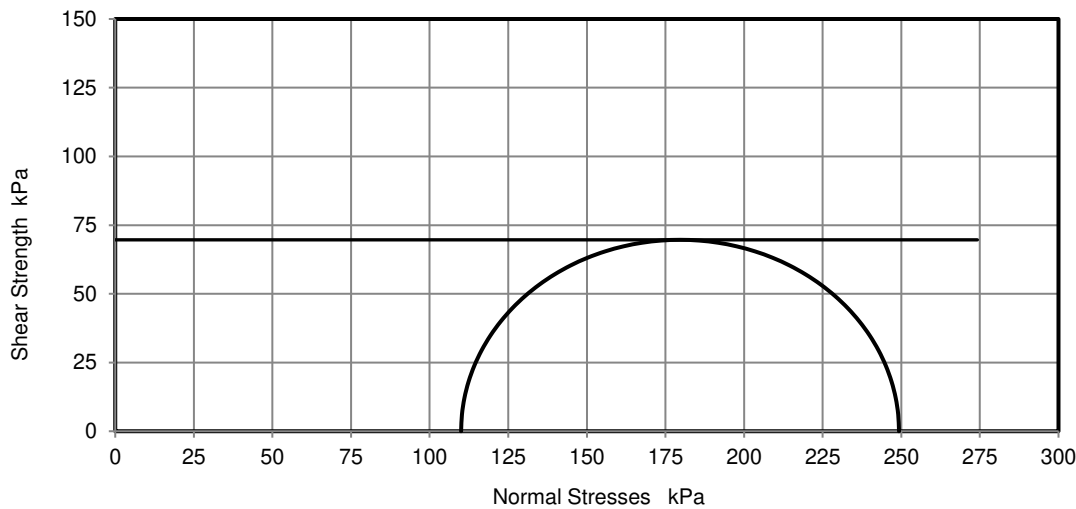
Test Number	1
Length	139.34 mm
Diameter	68.64 mm
Bulk Density	2.02 Mg/m ³
Moisture Content	24 %
Dry Density	1.63 Mg/m ³
Membrane Correction	1.46 kPa

Rate of Strain	2.00 %/min
Cell Pressure	110 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	139 kPa
Undrained Shear Strength, c_u	70 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.26 mm

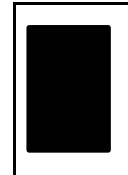
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Monika Janoszek

Monika Janoszek
 PL Deputy Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-15186
 Date Sampled: 16/06/2020
 Date Received: 19/06/2020
 Date Tested: 01/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

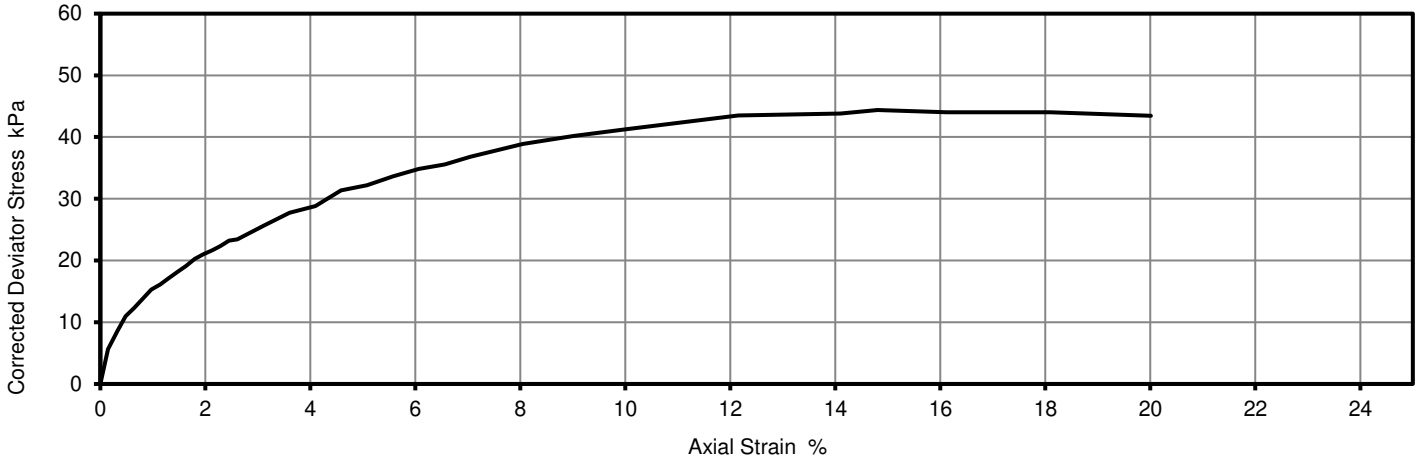
Laboratory Reference: 1539513
 Hole No.: CP05
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 6.00
 Depth Base [m]: 6.45
 Sample Type: U

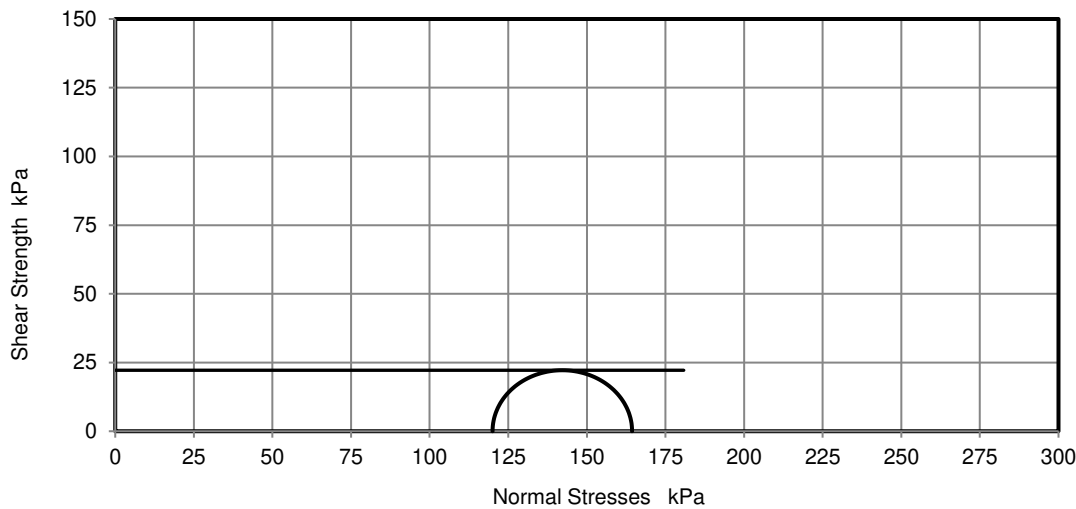
Test Number	1
Length	202.75 mm
Diameter	101.73 mm
Bulk Density	2.20 Mg/m ³
Moisture Content	19 %
Dry Density	1.84 Mg/m ³
Membrane Correction	0.80 kPa

Rate of Strain	1.97 %/min
Cell Pressure	120 kPa
Axial Strain at failure	14.8 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	44 kPa
Undrained Shear Strength, c_u	22 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.27 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-15186
 Date Sampled: 16/06/2020
 Date Received: 19/06/2020
 Date Tested: 01/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 8, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

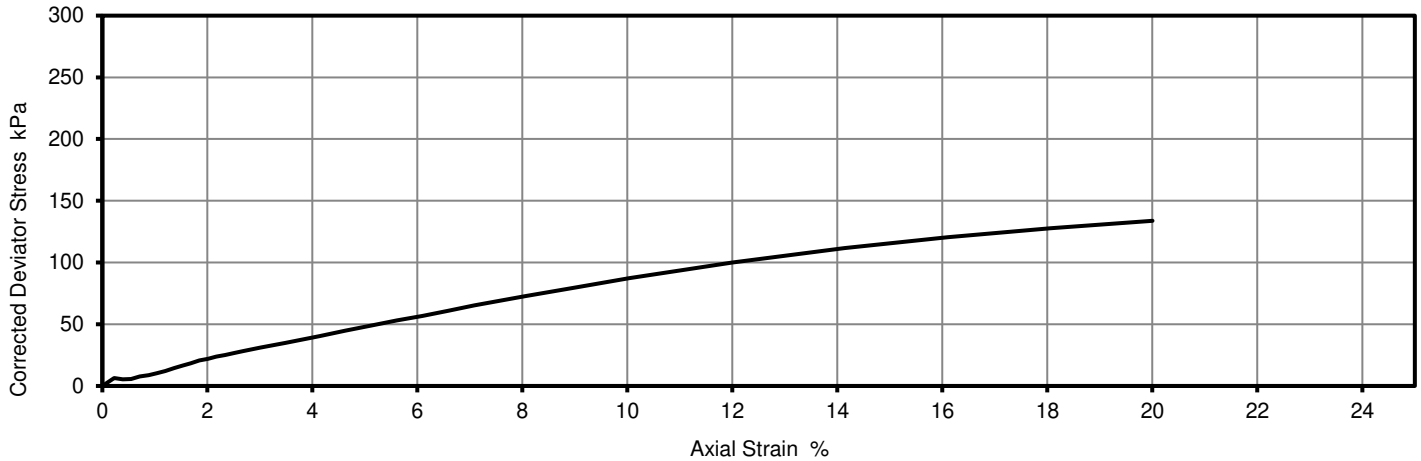
Laboratory Reference: 1539514
 Hole No.: CP05
 Sample Reference: Not Given
 Sample Description: Reddish brown CLAY

Depth Top [m]: 9.00
 Depth Base [m]: 9.45
 Sample Type: U

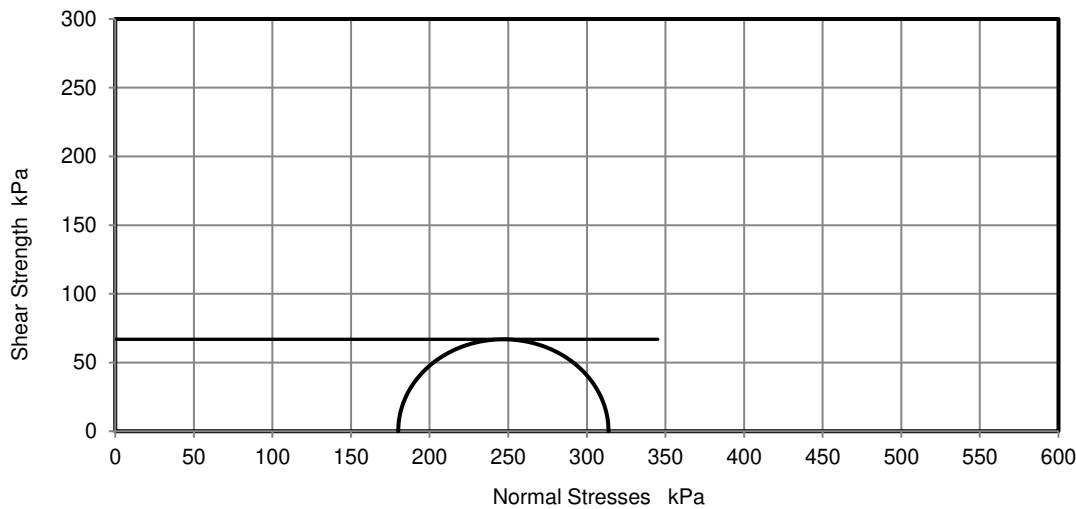
Test Number	1
Length	203.12 mm
Diameter	100.75 mm
Bulk Density	2.07 Mg/m ³
Moisture Content	28 %
Dry Density	1.62 Mg/m ³
Membrane Correction	0.88 kPa

Rate of Strain	1.97 %/min
Cell Pressure	180 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	134 kPa
Undrained Shear Strength, c_u	67 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.23 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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Monika Janoszek



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14204
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 9 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

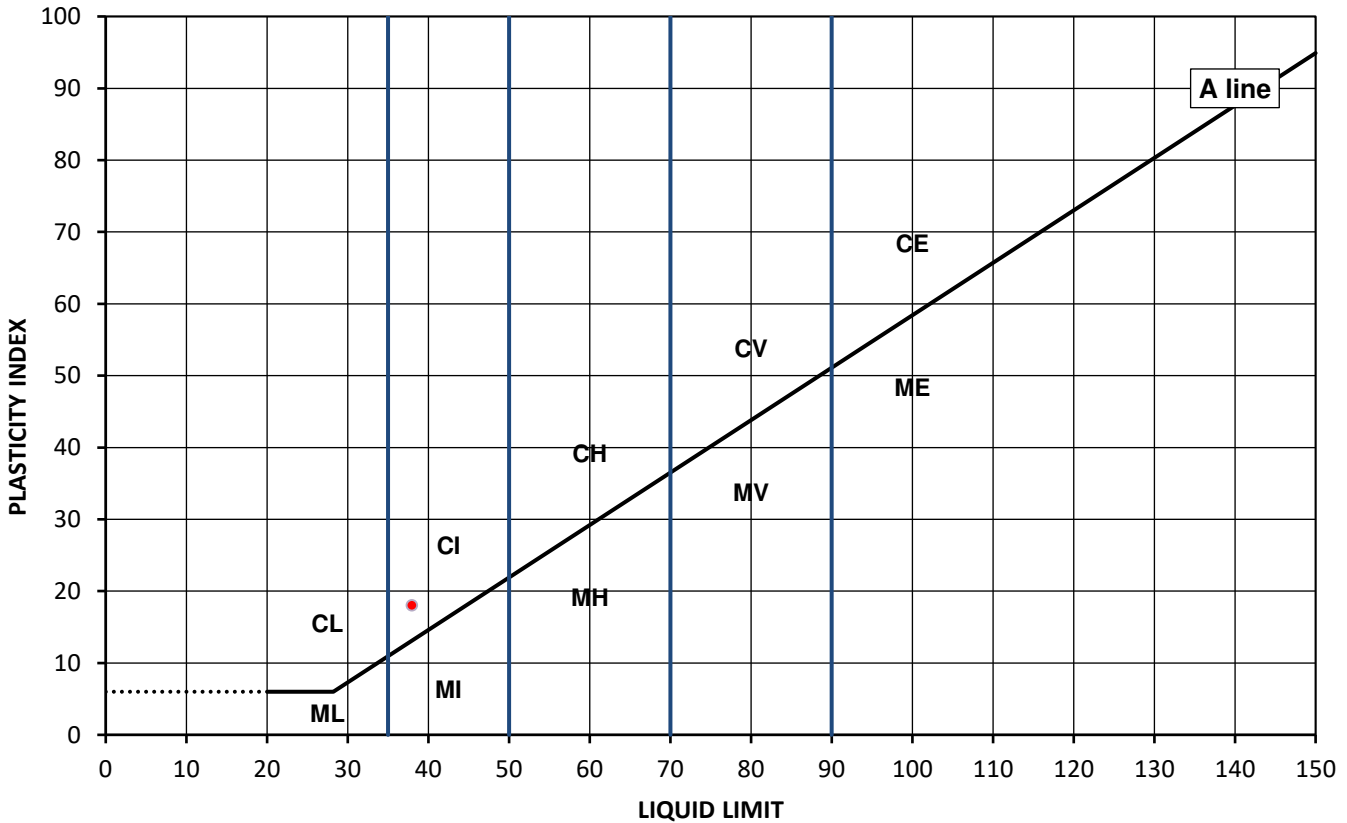
Test Results:

Laboratory Reference: 1534010
Hole No.: WS70
Sample Reference: Not Given
Soil Description: Greyish brown sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
20	38	20	18	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14204
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 9 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

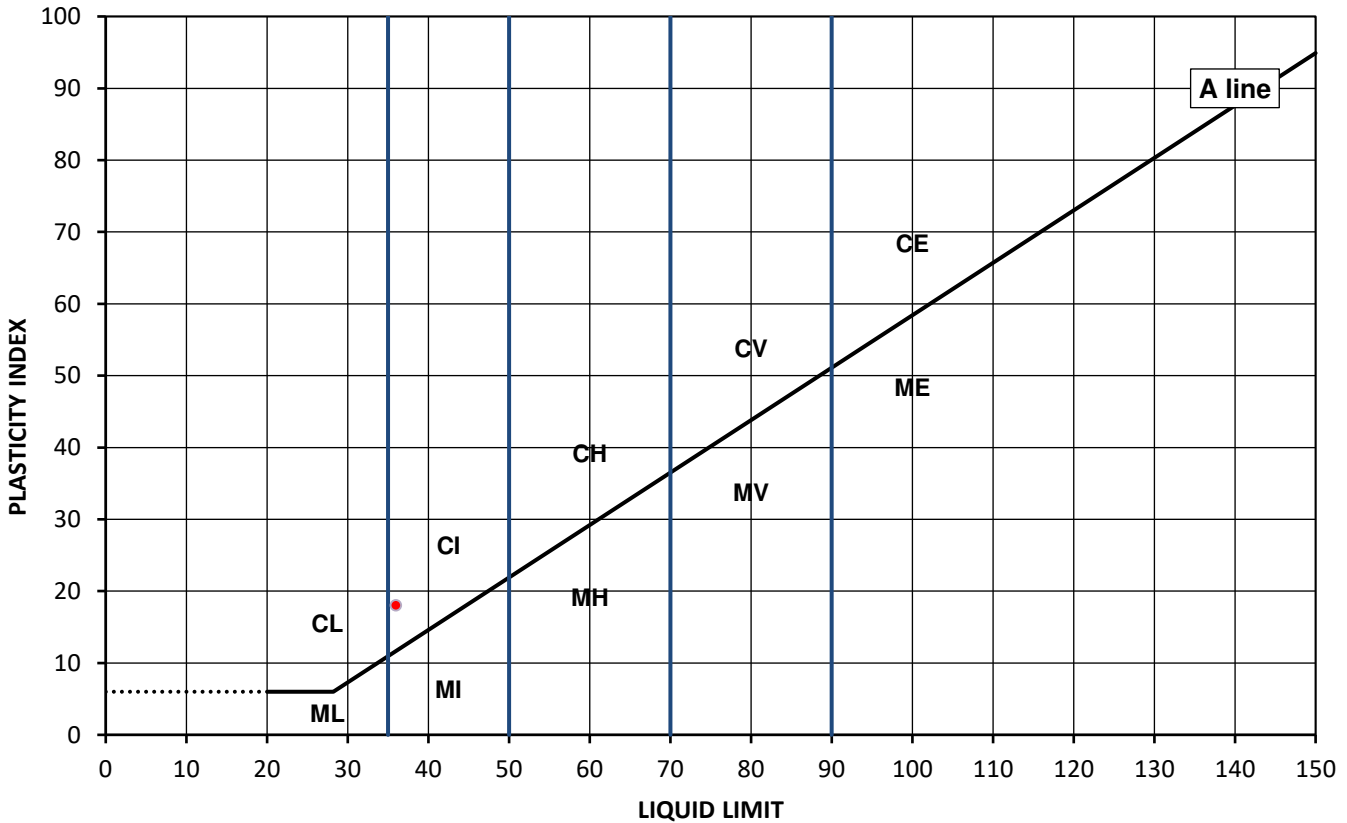
Test Results:

Laboratory Reference: 1534011
Hole No.: WS73
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	36	18	18	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	L	Low	Liquid Limit	below 35
M	Silt		I	Medium		35 to 50
			H	High		50 to 70
			V	Very high		70 to 90
			E	Extremely high		exceeding 90
	Organic		O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Deputy of Head of Geotechnical Section
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SUMMARY REPORT

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Summary of Classification Test Results

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 9 The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-14204
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um	LL	PL	PI	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
1534010	WS70	Not Given	2.00	2.45	D	Greyish brown sandy CLAY	Atterberg 1 Point	20		100	38	20	18				
1534011	WS73	Not Given	1.20	1.65	D	Brown sandy CLAY	Atterberg 1 Point	18		100	36	18	18				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-14204
 Date Sampled: 09/06/2020
 Date Received: 15/06/2020
 Date Tested: 24/06/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 9 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

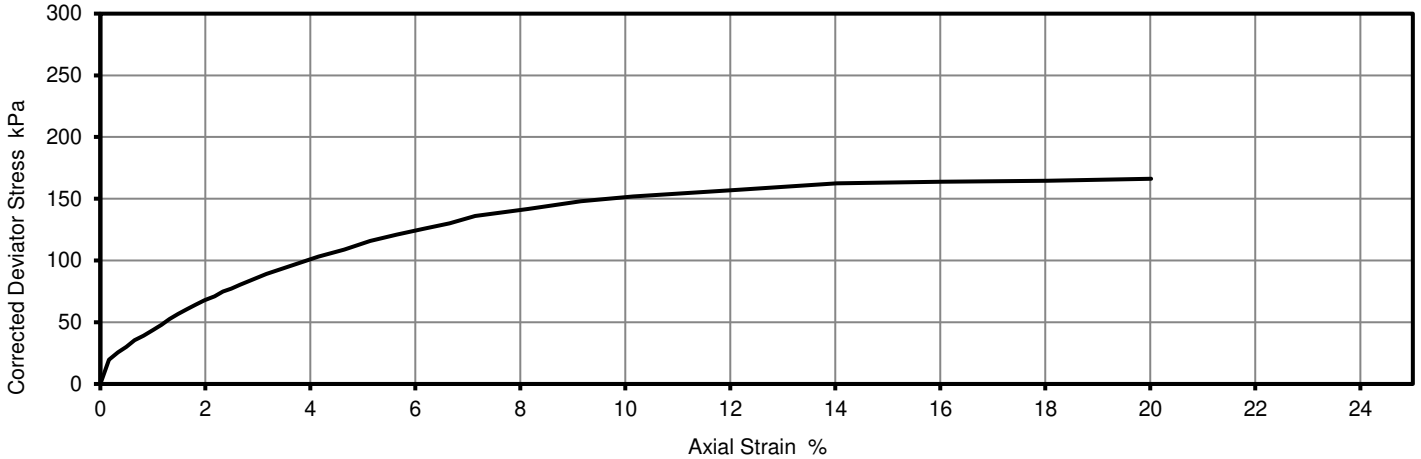
Laboratory Reference: 1534012
 Hole No.: BH10
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.30
 Depth Base [m]: 3.75
 Sample Type: U

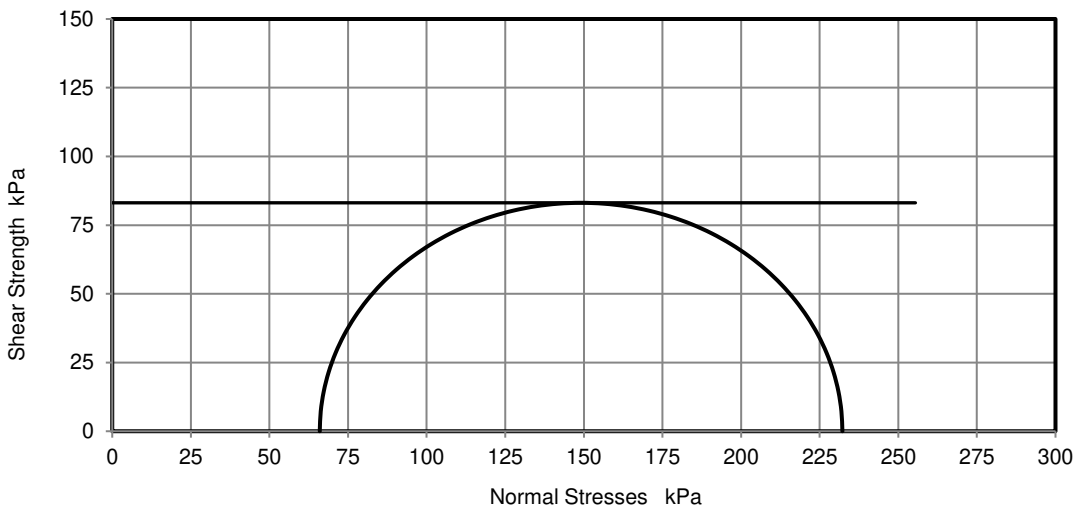
Test Number	1
Length	137.55 mm
Diameter	69.35 mm
Bulk Density	2.06 Mg/m ³
Moisture Content	24 %
Dry Density	1.66 Mg/m ³
Membrane Correction	1.28 kPa

Rate of Strain	2.00 %/min
Cell Pressure	66 kPa
Axial Strain at failure	20.0 %
Deviator Stress, (σ ₁ - σ ₃) _f	166 kPa
Undrained Shear Strength, c _u	83 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Brittle
Membrane thickness	0.23 mm

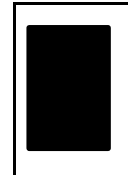
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Szczepan Białatowicz
 PL Deputy of Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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Szczepan Białatowicz



TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 9 The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-14204
 Date Sampled: 09/06/2020
 Date Received: 15/06/2020
 Date Tested: 24/06/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

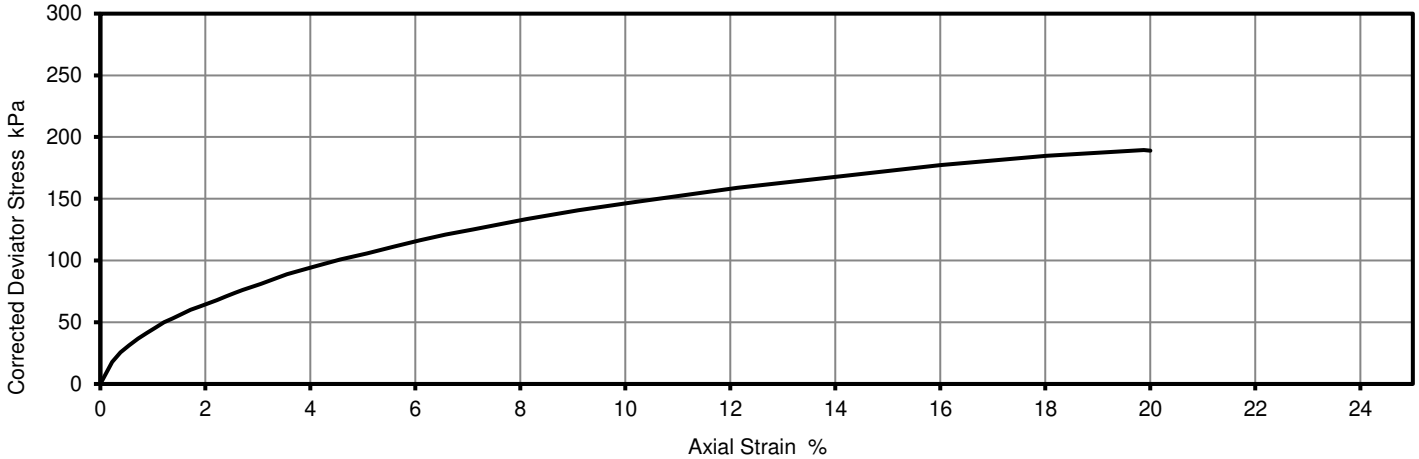
Laboratory Reference: 1534013
 Hole No.: BH10
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 7.00
 Depth Base [m]: 7.45
 Sample Type: U

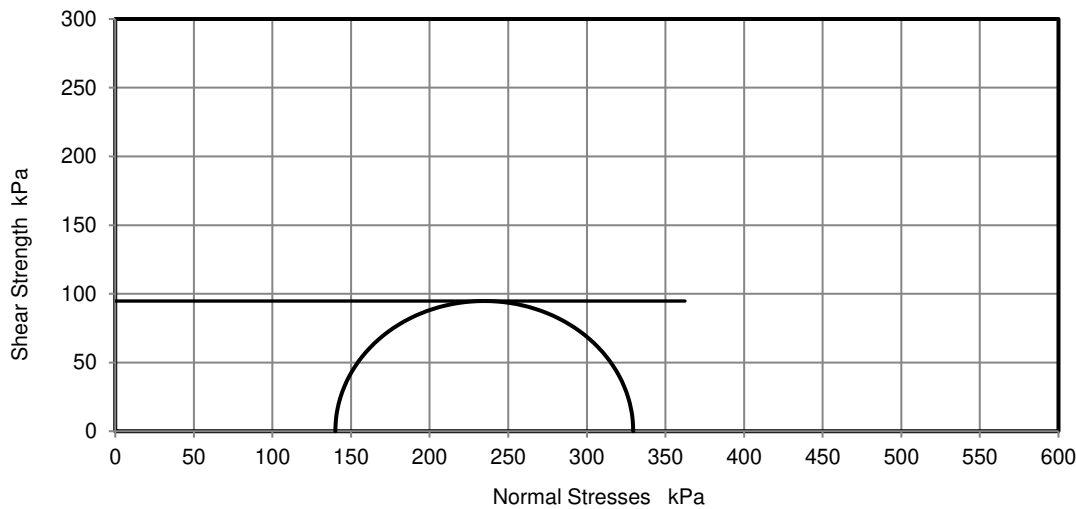
Test Number	1
Length	191.55 mm
Diameter	101.70 mm
Bulk Density	2.22 Mg/m ³
Moisture Content	16 %
Dry Density	1.91 Mg/m ³
Membrane Correction	0.87 kPa

Rate of Strain	2.00 %/min
Cell Pressure	140 kPa
Axial Strain at failure	19.9 %
Deviator Stress, (σ ₁ - σ ₃) _f	189 kPa
Undrained Shear Strength, c _u	95 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.23 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Szczepan Białatowicz

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14064
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 10 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

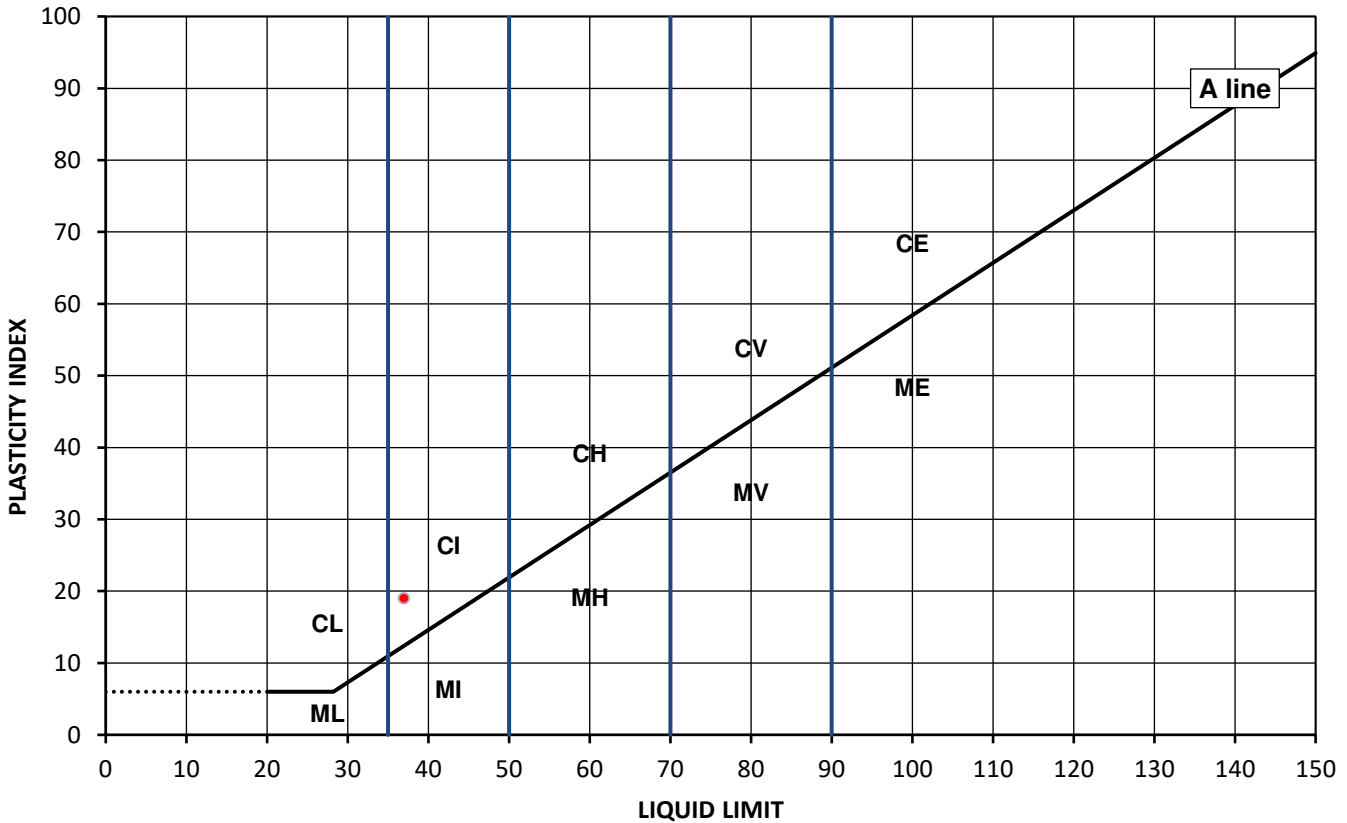
Test Results:

Laboratory Reference: 1533387
Hole No.: WS75
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	37	18	19	91



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14064
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 10 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

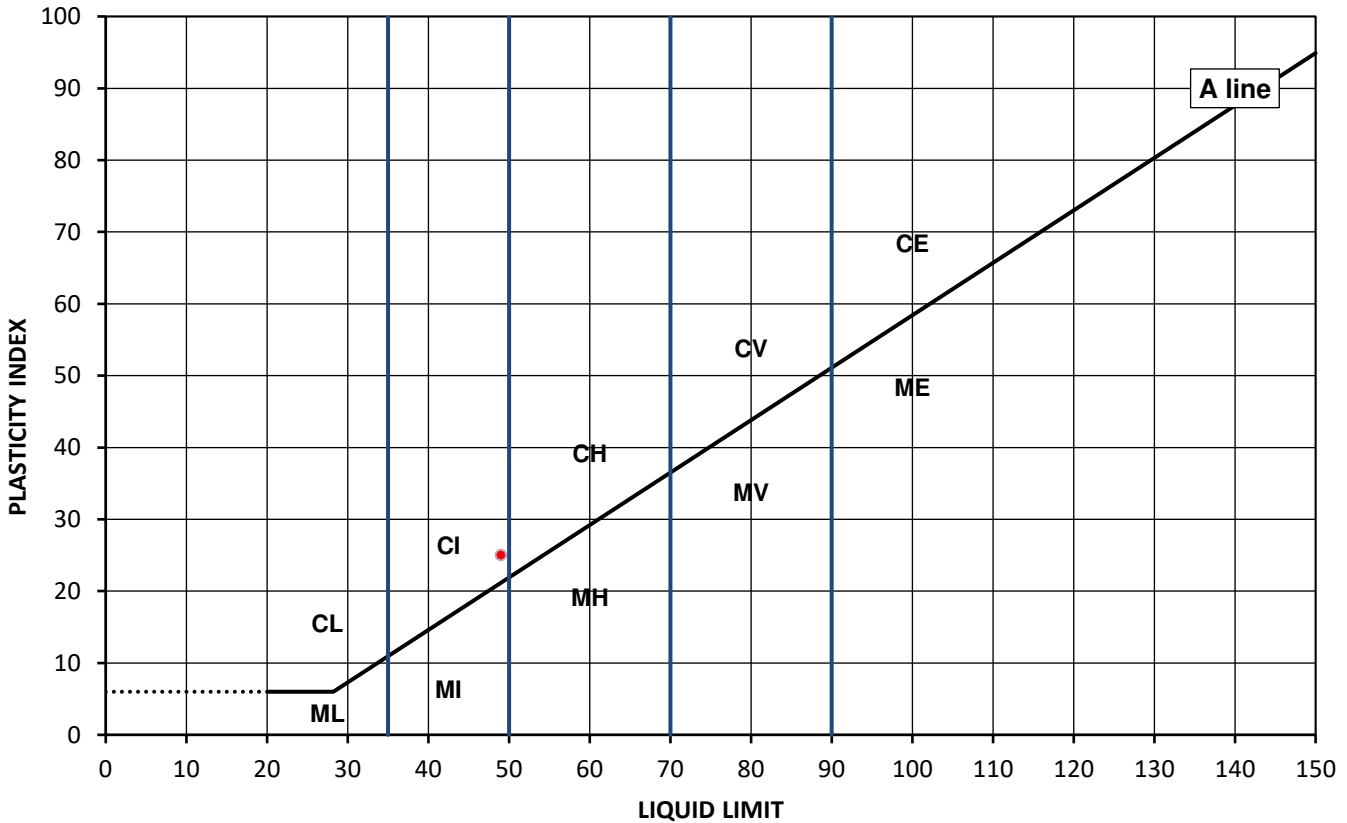
Test Results:

Laboratory Reference: 1533388
Hole No.: TP101
Sample Reference: Not Given
Soil Description: Greyish brown slightly sandy CLAY

Depth Top [m]: 0.30
Depth Base [m]: 0.90
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
22	49	24	25	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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TEST CERTIFICATE

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Unit 8 Harrowden Road
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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14064
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 10 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

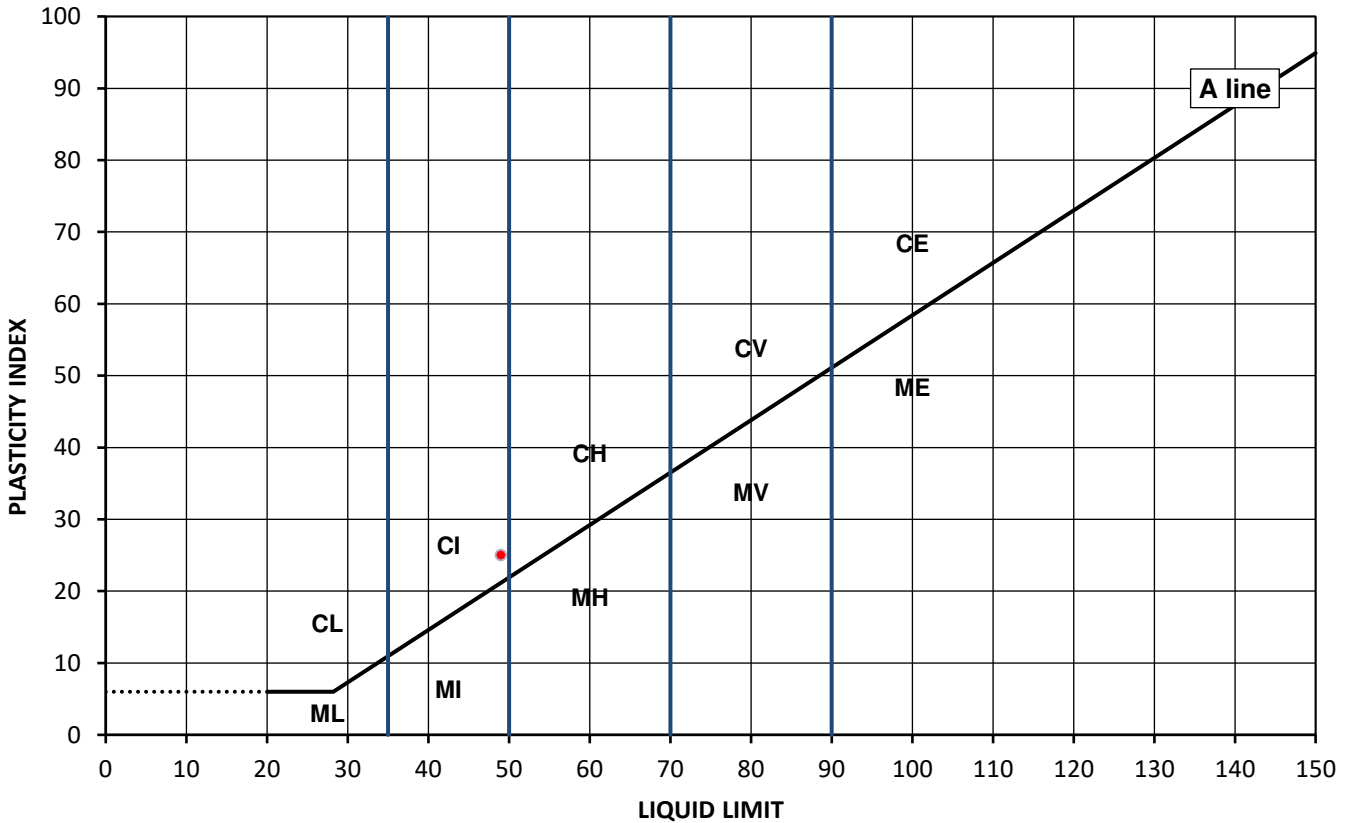
Test Results:

Laboratory Reference: 1533389
Hole No.: TP103
Sample Reference: Not Given
Soil Description: Greyish brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
26	49	24	25	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Deputy Head of Geotechnical Section
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TEST CERTIFICATE

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Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

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Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
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CW9 5LP

Client Reference: C4259
Job Number: 20-14064
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 10 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

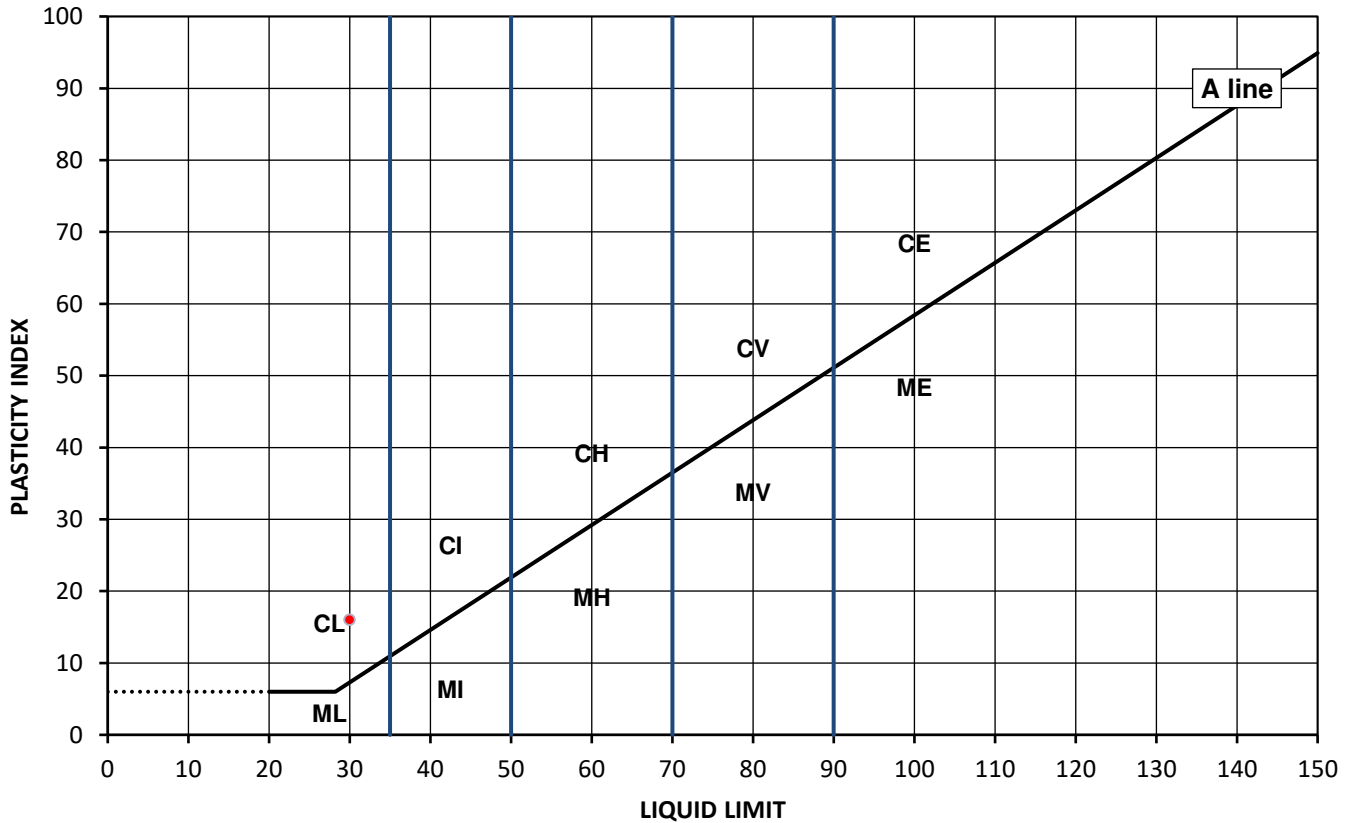
Test Results:

Laboratory Reference: 1533390
Hole No.: TP107
Sample Reference: Not Given
Soil Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
14	30	14	16	87



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	L	Low	Liquid Limit	below 35
M	Silt		I	Medium		35 to 50
			H	High		50 to 70
			V	Very high		70 to 90
			E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)			

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 26/06/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14064
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 10 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

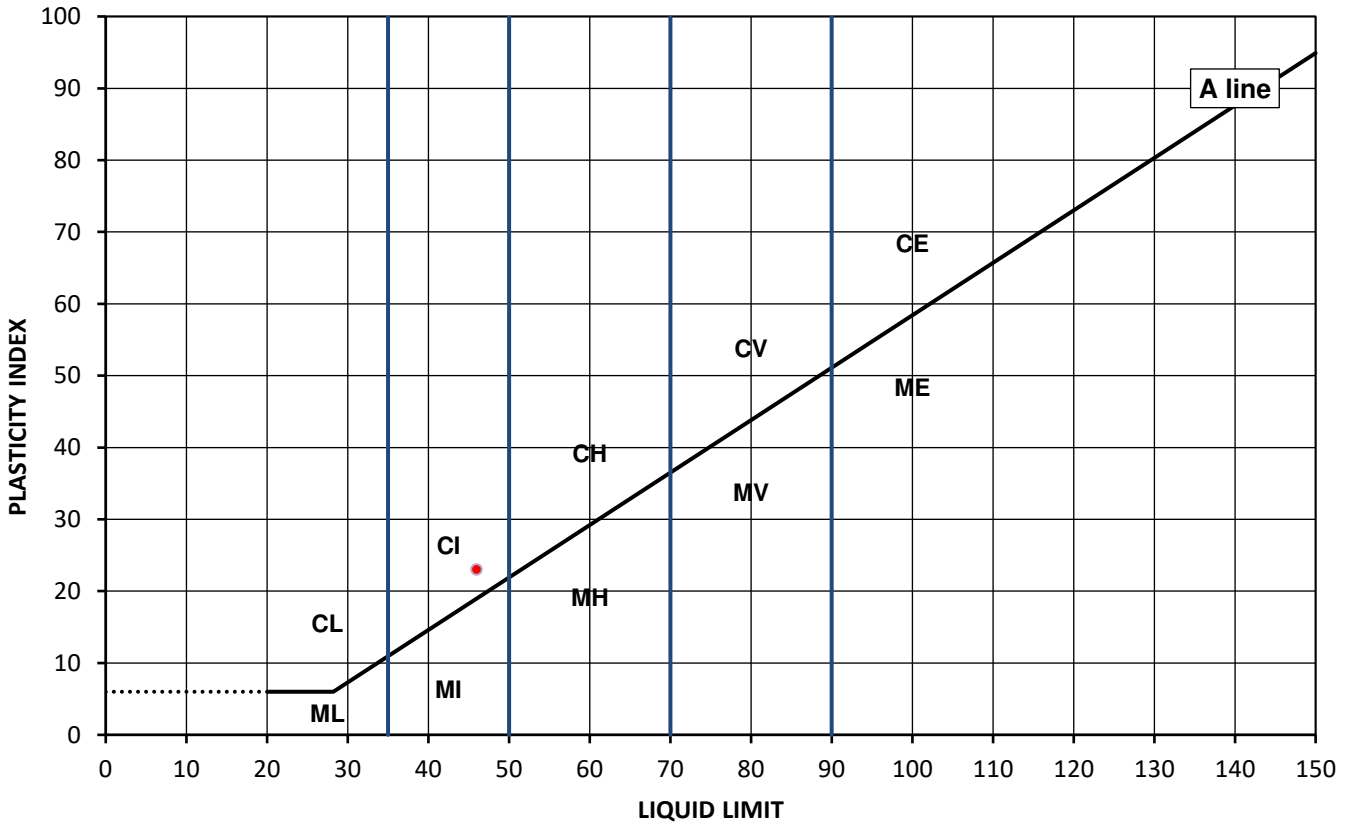
Test Results:

Laboratory Reference: 1533391
Hole No.: TP109
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
25	46	23	23	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90
	Organic	O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
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SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 10 The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-14064
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#		
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um	LL	PL	PI	bulk Mg/m3	dry Mg/m3	PD Mg/m3			
1533388	TP101	Not Given	0.30	0.90	D	Greyish brown slightly sandy CLAY	Atterberg 1 Point	22		100	49	24	25						
1533389	TP103	Not Given	2.00	Not Given	D	Greyish brown slightly sandy CLAY	Atterberg 1 Point	26		100	49	24	25						
1533390	TP107	Not Given	2.50	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	14		87	30	14	16						
1533391	TP109	Not Given	1.50	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	25		100	46	23	23						
1533387	WS75	Not Given	2.00	2.45	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	17		91	37	18	19						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP
 Contact: Nicola Swallow
 Site Address: Area 11, The Lanes. Penwortham

SUMMARY REPORT

Summary of Moisture Content Test Results

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client Reference: C4259
 Job Number: 20-15200
 Date Sampled: 09/06 - 15/06/2020
 Date Received: 19/06/2020
 Date Tested: 30/06/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC													
		Reference	Depth Top m	Depth Base m	Type																
1539558	CP06	Not Given	2.70	3.00	D	Greyish brown CLAY		26													
1539565	TP115	Not Given	1.00	Not Given	D	Multicolour CLAY		21													
1539566	TP121	Not Given	1.50	Not Given	D	Brown CLAY		18													
1539567	TP125	Not Given	2.00	Not Given	D	Brownish grey CLAY		16													
1539559	WS82	Not Given	1.20	1.65	D	Dark brown CLAY		27													
1539560	WS83	Not Given	1.20	1.65	D	Greyish brown CLAY		23													
1539561	WS87	Not Given	2.00	Not Given	D	Greyish brown CLAY		14													
1539562	WS89	Not Given	3.00	3.45	D	Greyish brown CLAY		21													
1539563	WS93	Not Given	2.00	Not Given	D	Greyish brown CLAY		28													
1539564	WS98	Not Given	1.00	Not Given	D	Greyish brown CLAY		15													

Comments:

Signed:

Szczepan Bielatowicz
 PL Deputy of Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes. Penwortham

Client Reference: C4259
Job Number: 20-15200
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

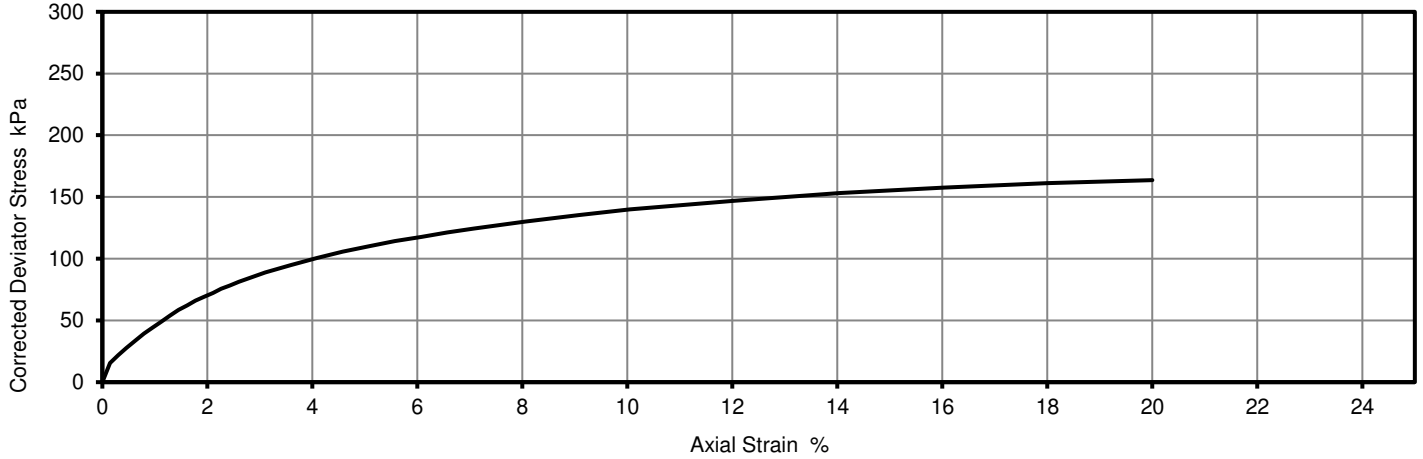
Laboratory Reference: 1539556
Hole No.: CP06
Sample Reference: Not Given
Sample Description: Reddish brown to grey slightly sandy slightly gravelly CLAY

Depth Top [m]: 4.00
Depth Base [m]: 4.45
Sample Type: U

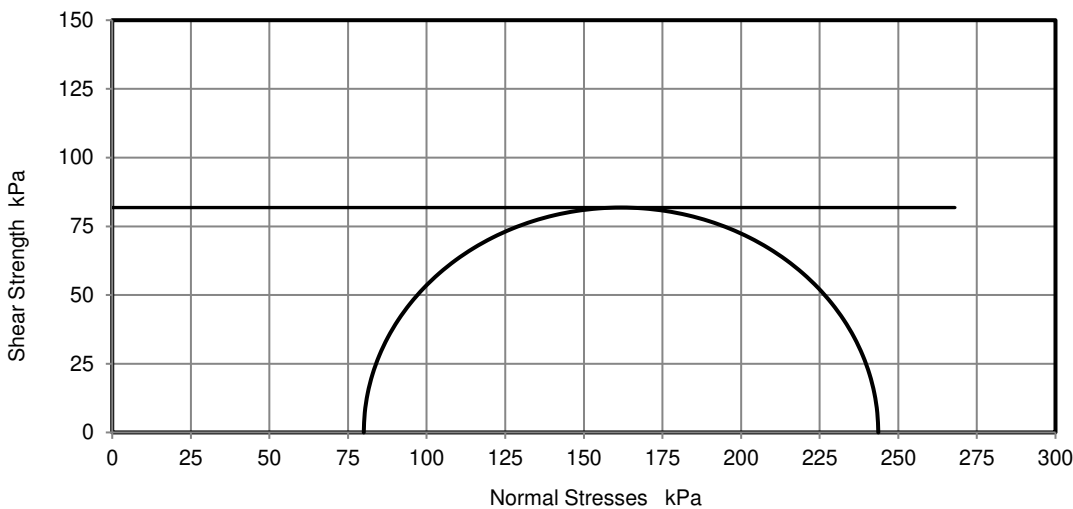
Test Number	1
Length	200.92 mm
Diameter	101.15 mm
Bulk Density	2.22 Mg/m ³
Moisture Content	15 %
Dry Density	1.94 Mg/m ³
Membrane Correction	1.02 kPa

Rate of Strain	1.99 %/min
Cell Pressure	80 kPa
Axial Strain at failure	19.9 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	164 kPa
Undrained Shear Strength, c_u	82 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.27 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 11, The Lanes. Penwortham

Client Reference: C4259
Job Number: 20-15200
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

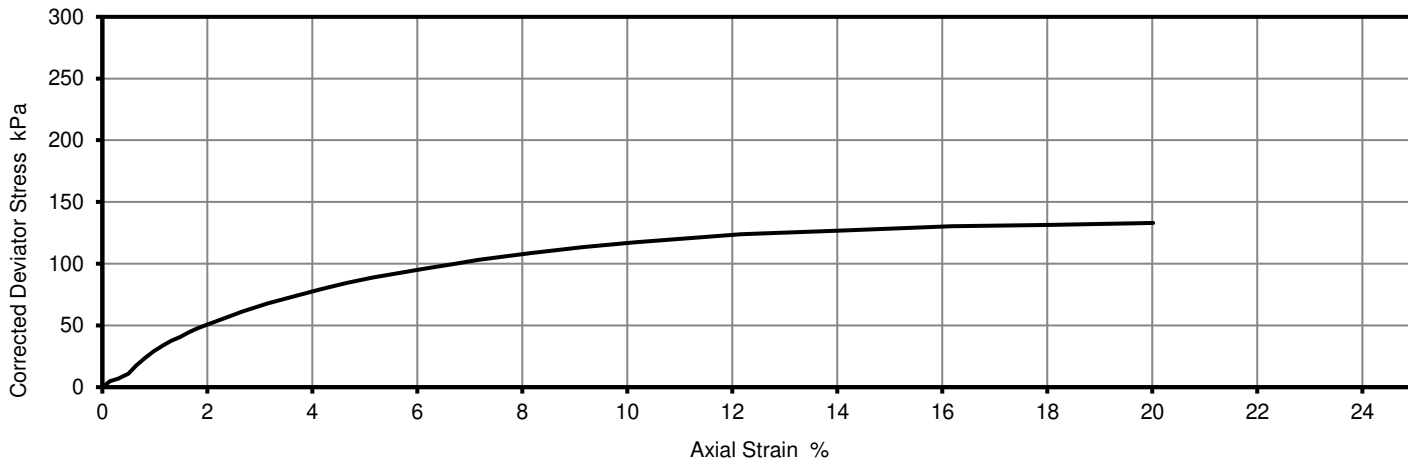
Laboratory Reference: 1539557
Hole No.: CP06
Sample Reference: Not Given
Sample Description: Reddish brown slightly sandy gravelly CLAY

Depth Top [m]: 10.50
Depth Base [m]: 10.95
Sample Type: U

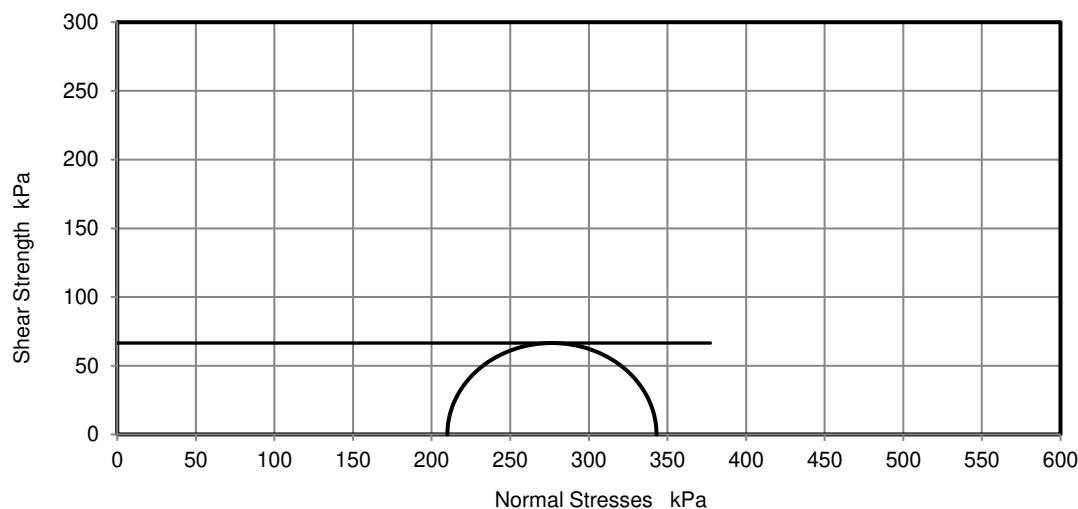
Test Number	1
Length	198.86 mm
Diameter	102.05 mm
Bulk Density	2.20 Mg/m ³
Moisture Content	14 %
Dry Density	1.92 Mg/m ³
Membrane Correction	0.94 kPa

Rate of Strain	2.00 %/min
Cell Pressure	210 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	133 kPa
Undrained Shear Strength, c_u	67 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.25 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 15/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

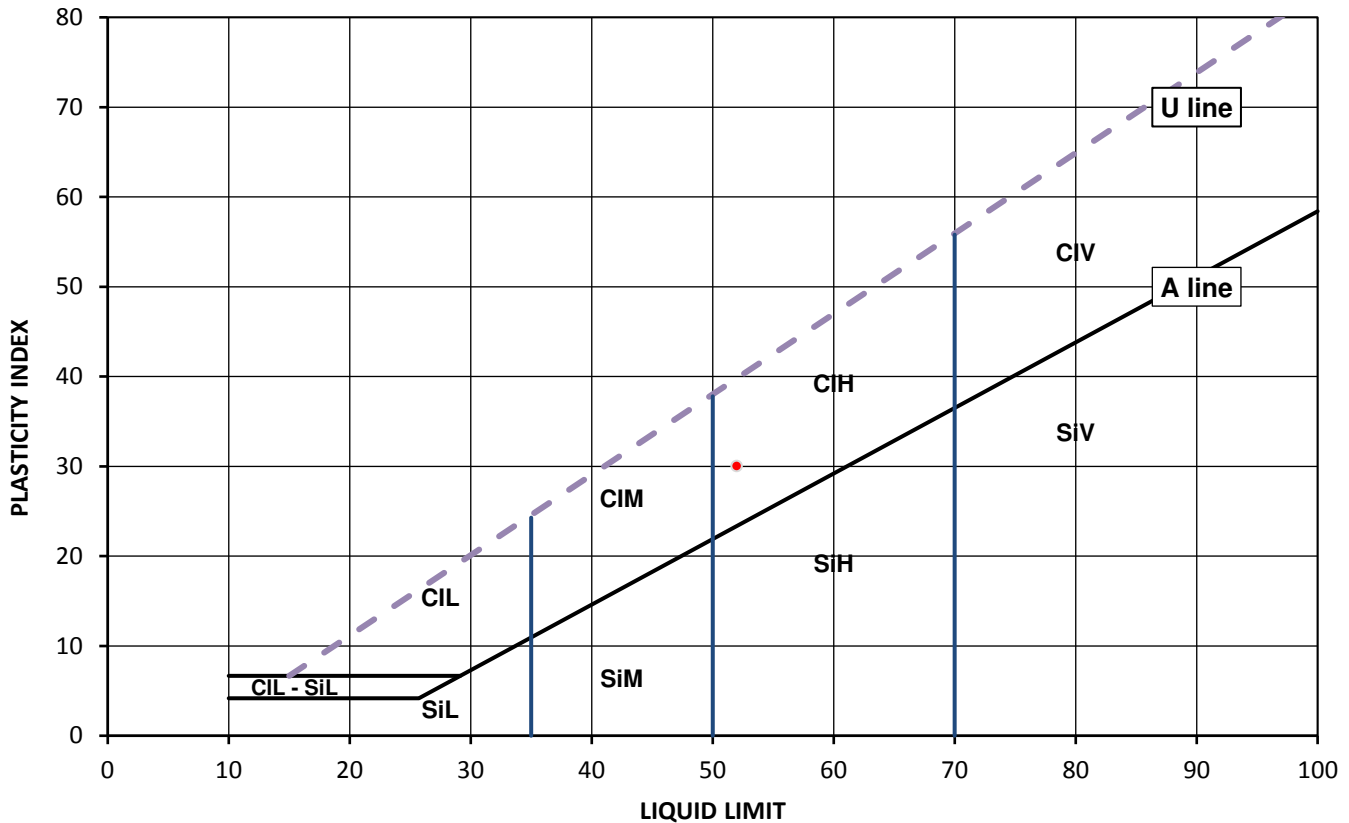
Test Results:

Laboratory Reference: 1575850
Hole No.: CP06
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 2.70
Depth Base [m]: 3.00
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
26	52	22	30	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

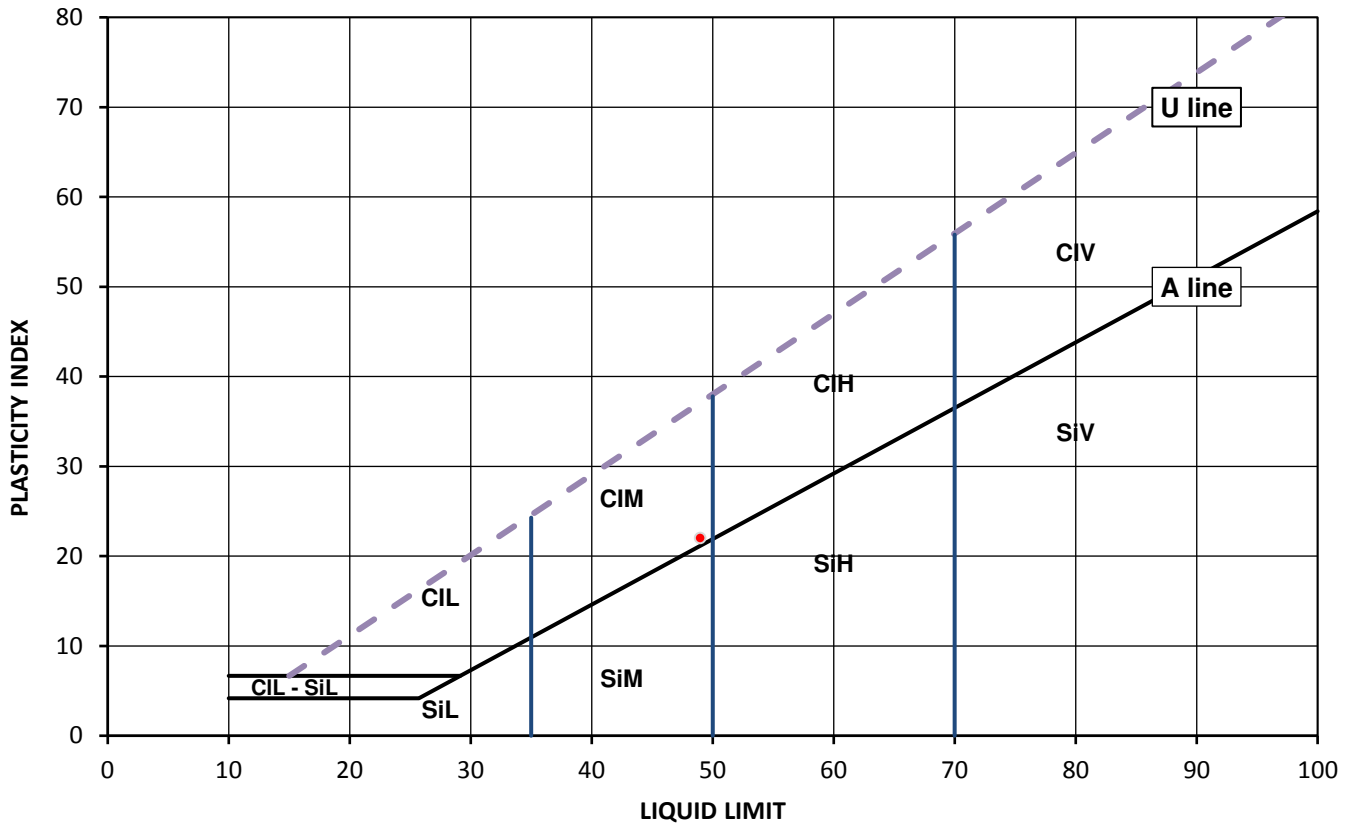
Test Results:

Laboratory Reference: 1575851
Hole No.: WS82
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
27	49	27	22	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L Low	50 to 70
	M Medium	exceeding 70
	H High	append to classification for organic material (eg CIHO)
	V Very high	
	O Organic	

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

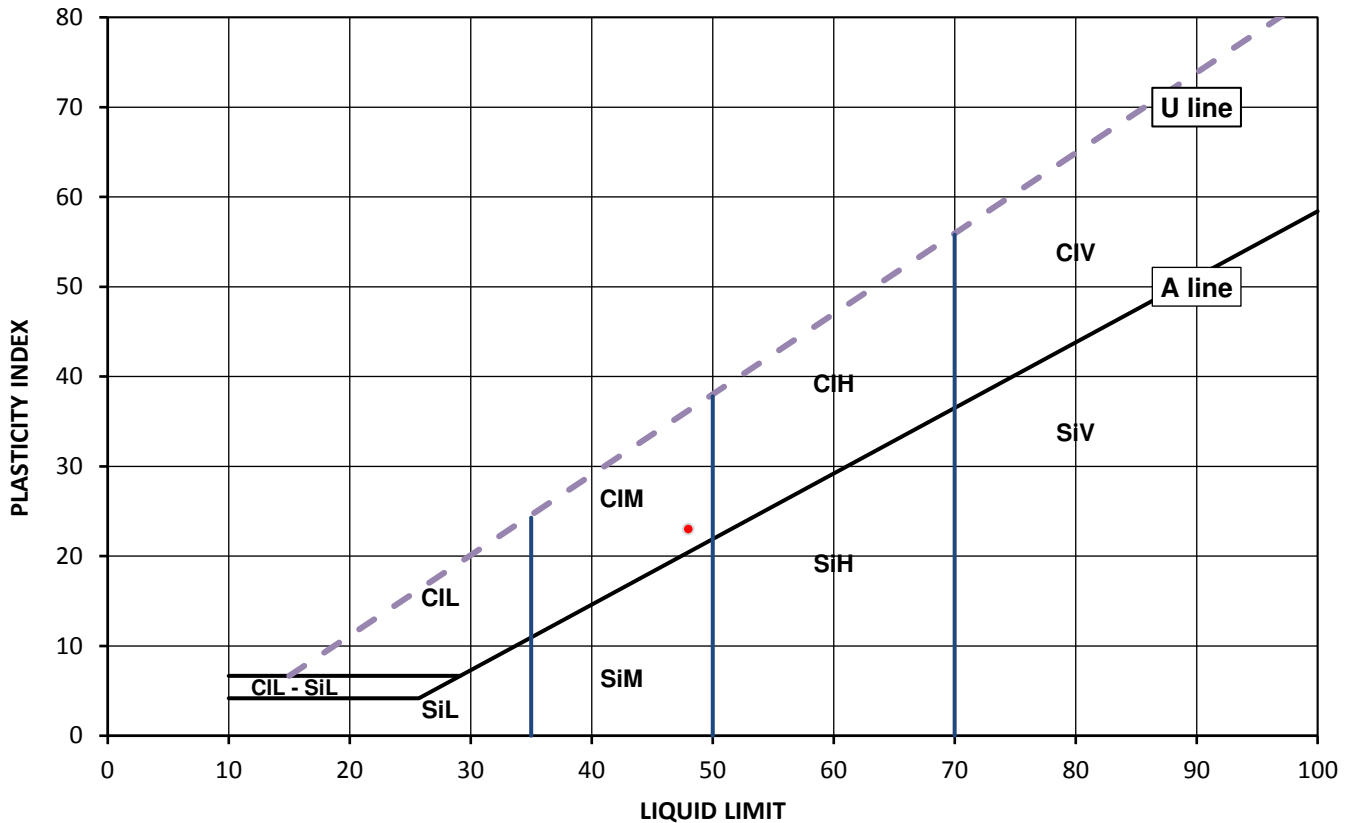
Test Results:

Laboratory Reference: 1575852
Hole No.: WS83
Sample Reference: Not Given
Soil Description: Brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
23	48	25	23	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	exceeding 70
		O	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 11/08/2020

GF 232.10



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

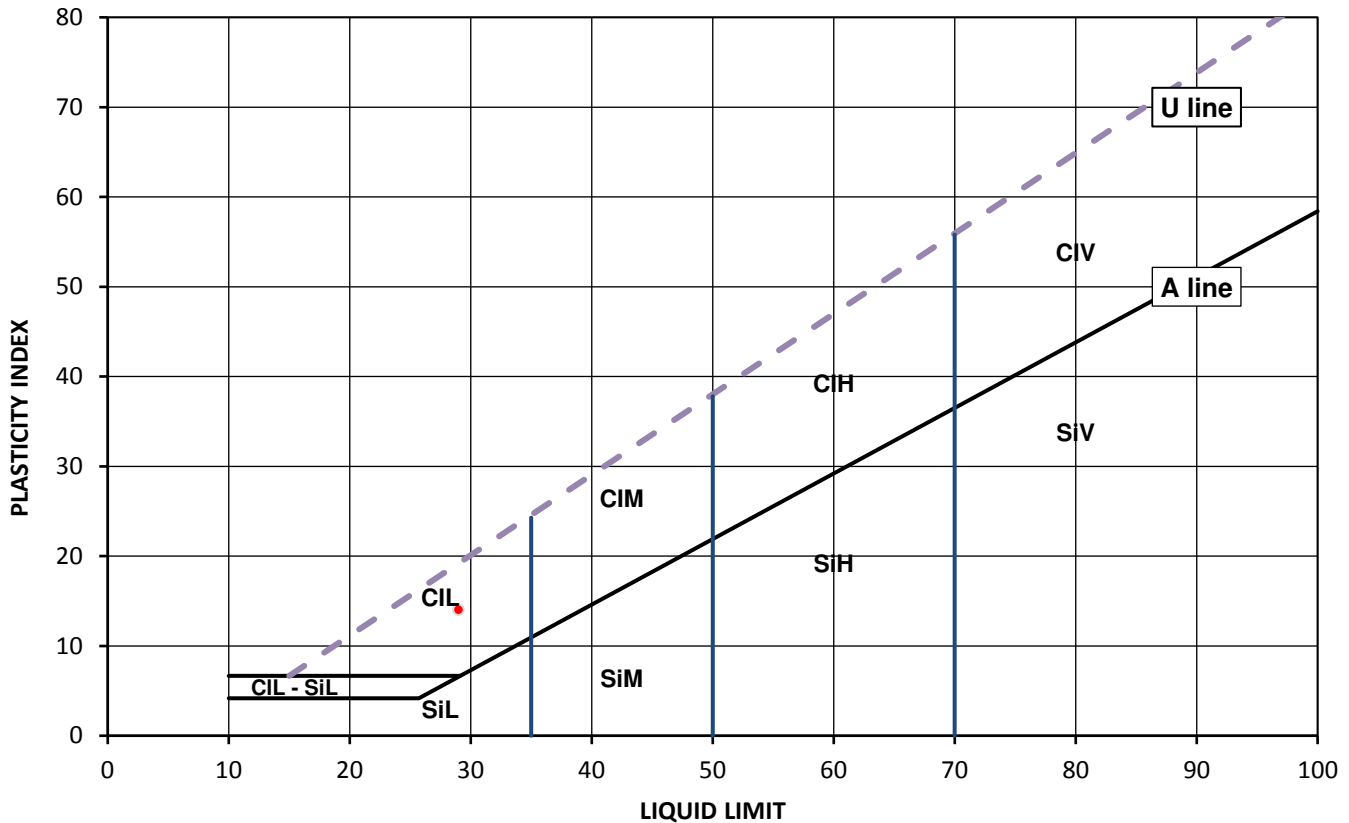
Test Results:

Laboratory Reference: 1575853
Hole No.: WS87
Sample Reference: Not Given
Soil Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
14	29	15	14	92



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

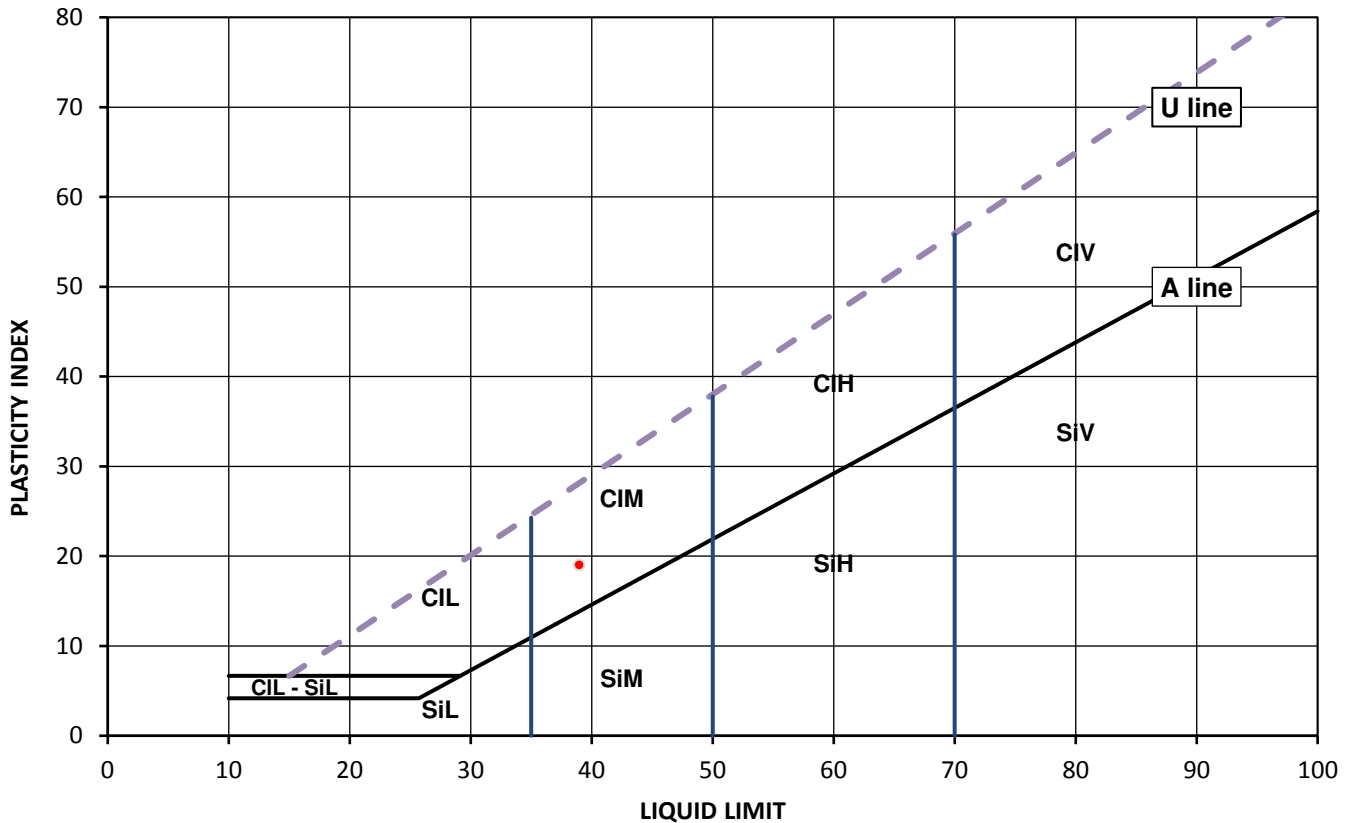
Test Results:

Laboratory Reference: 1575854
Hole No.: WS89
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 3.00
Depth Base [m]: 3.45
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
21	39	20	19	90



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl Clay	L Low	below 35
Si Silt	M Medium	35 to 50
	H High	50 to 70
	V Very high	exceeding 70
	O Organic	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 10/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

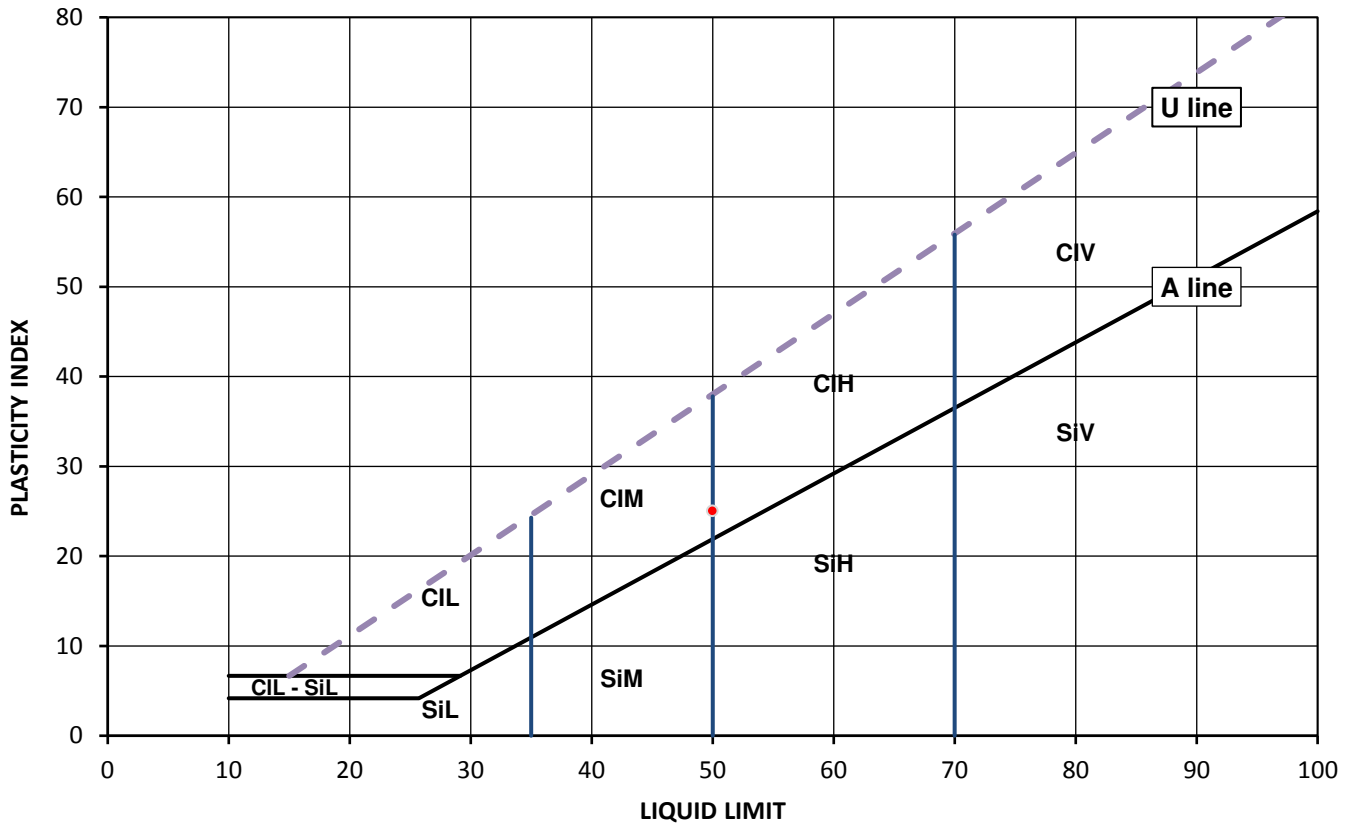
Test Results:

Laboratory Reference: 1575855
Hole No.: WS93
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
28	50	25	25	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	exceeding 70
		O	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

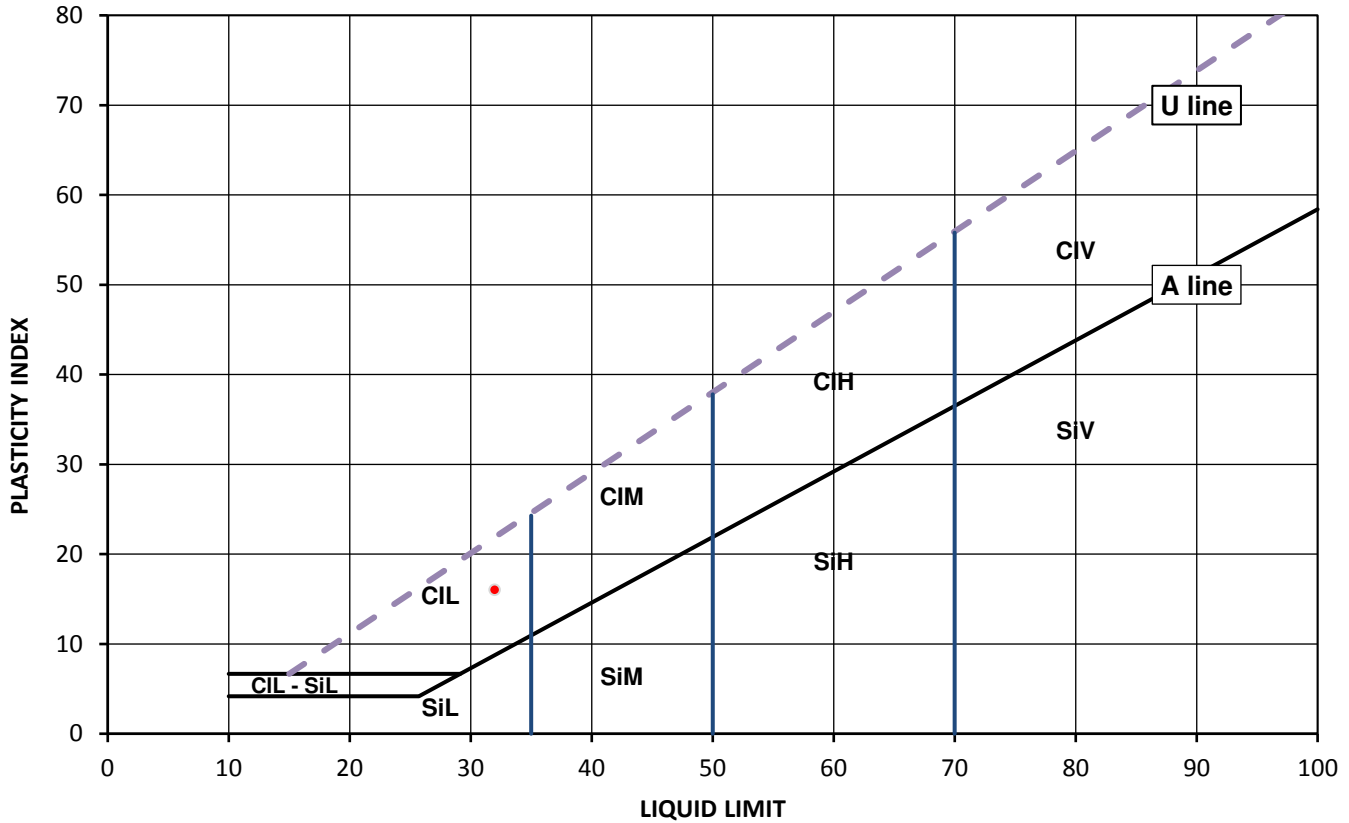
Test Results:

Laboratory Reference: 1575856
Hole No.: WS98
Sample Reference: Not Given
Soil Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
15	32	16	16	91



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	exceeding 70
		O	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 10/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

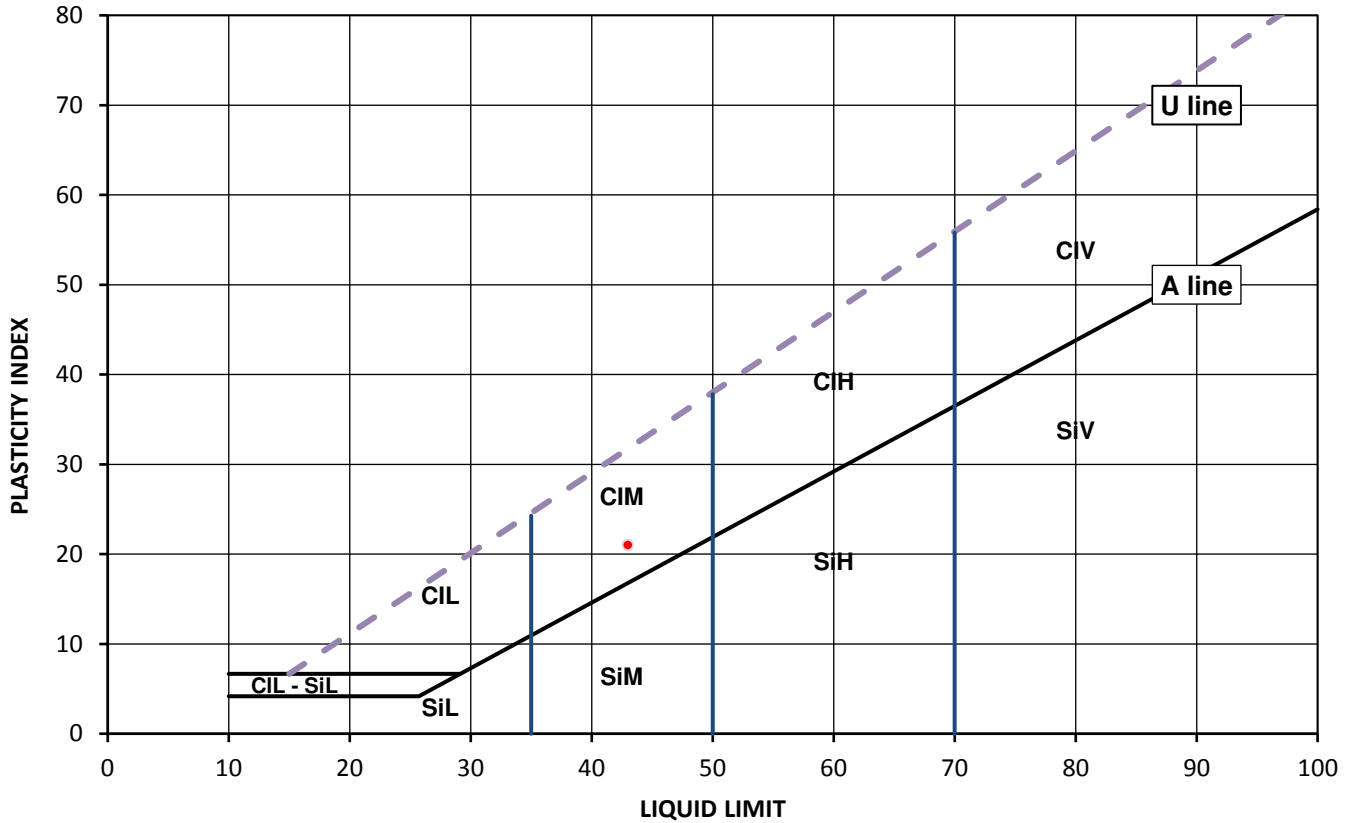
Test Results:

Laboratory Reference: 1575857
Hole No.: TP115
Sample Reference: Not Given
Soil Description: Mottled brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
21	43	22	21	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	exceeding 70
		O	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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TEST CERTIFICATE

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Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

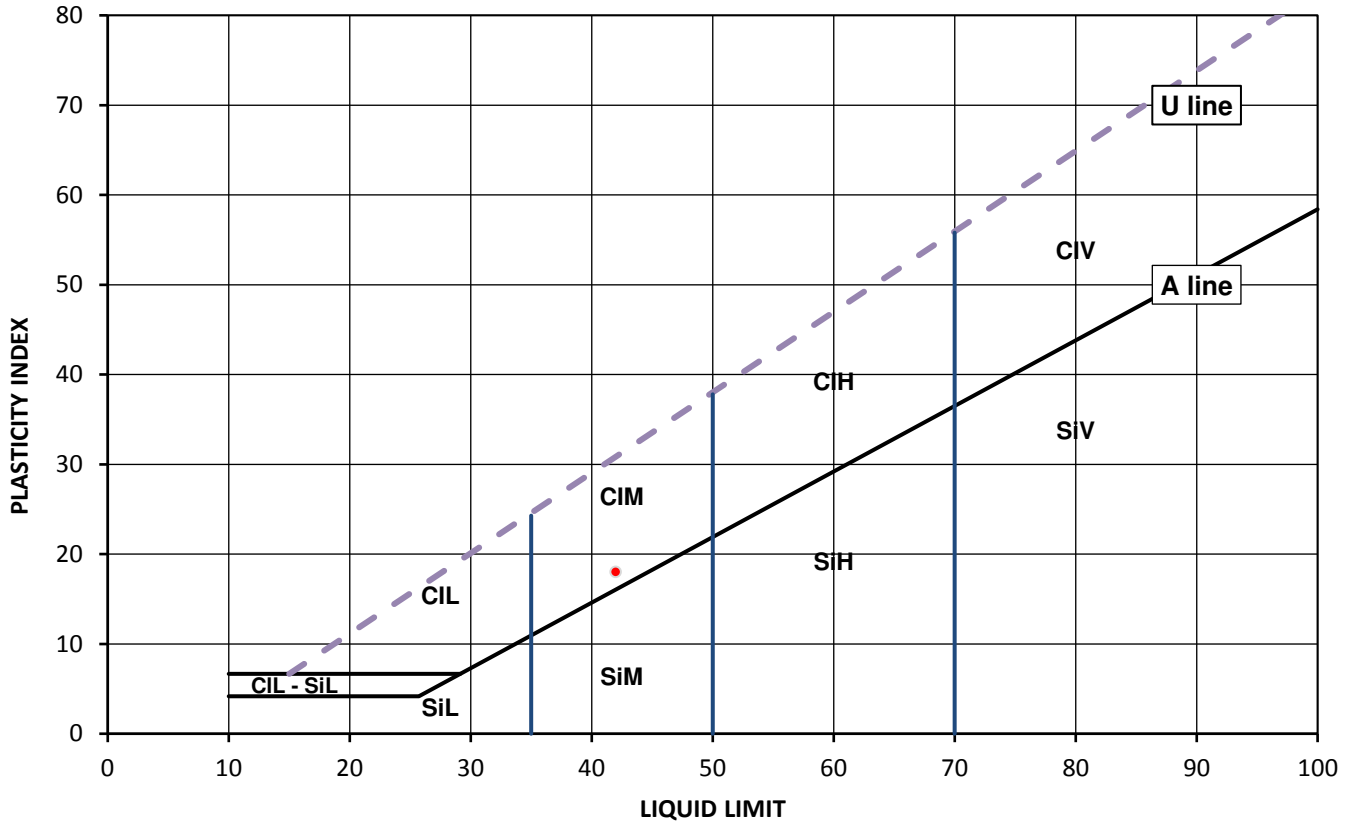
Test Results:

Laboratory Reference: 1575858
Hole No.: TP121
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
18	42	24	18	94



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	exceeding 70
		O	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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TEST CERTIFICATE

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-21807
Date Sampled: 09/06/2020
Date Received: 19/06/2020
Date Tested: 10/08/2020
Sampled By: Not Given

Contact: Nicola Swallow
Site Address: Area 11, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

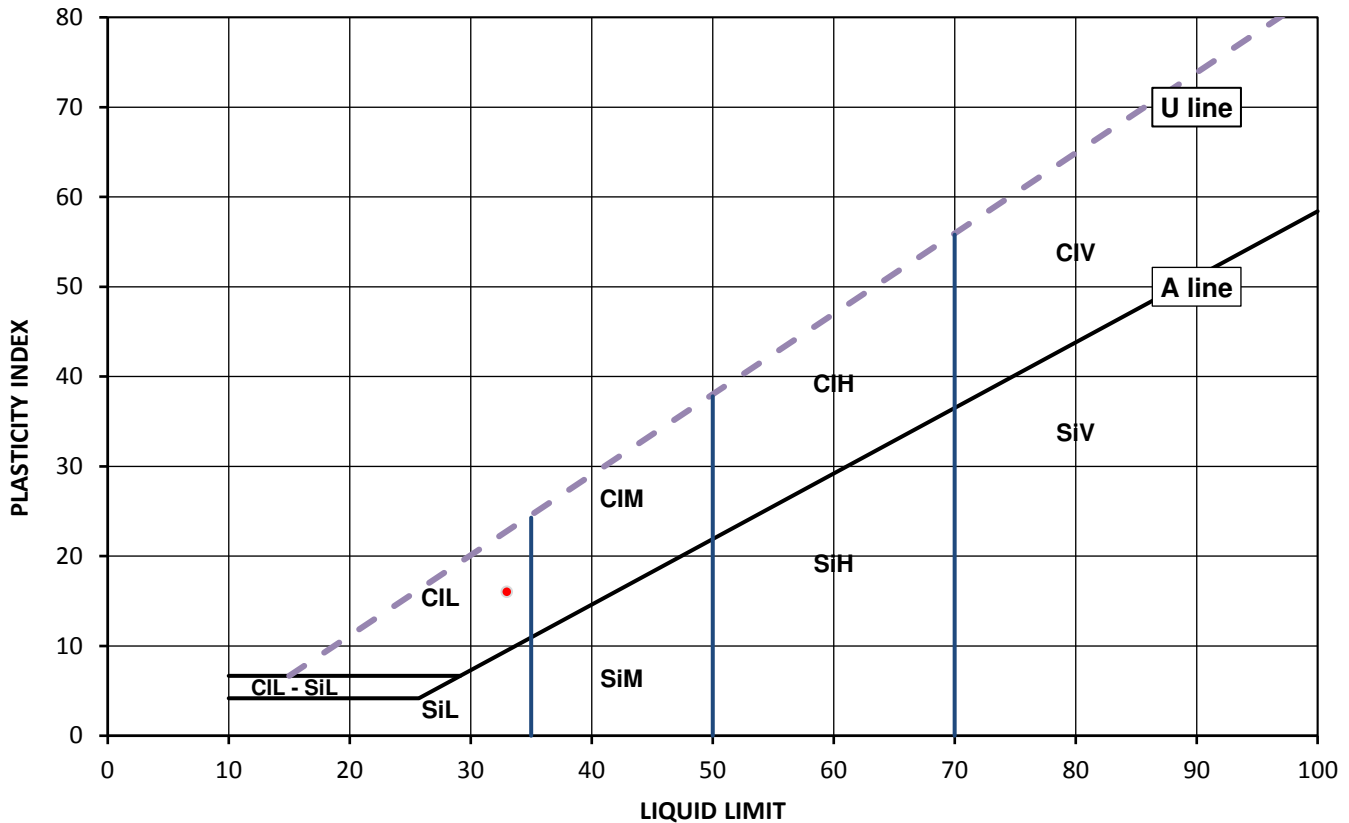
Test Results:

Laboratory Reference: 1575859
Hole No.: TP125
Sample Reference: Not Given
Soil Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
16	33	17	16	95



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	exceeding 70
		O	append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 11, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

Moisture Content by BS 1377-2: 1990: Clause 3.2; Water Content by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client Reference: C4259
 Job Number: 20-21807
 Date Sampled: 09/06 - 15/06/2020
 Date Received: 19/06/2020
 Date Tested: 10/08/2020
 Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Moisture Content [W]	Water Content [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
1575850	CP06	Not Given	2.70	3.00	D	Brown slightly sandy CLAY	Atterberg 1 Point	26		100	52	22	30						
1575857	TP115	Not Given	1.00	Not Given	D	Mottled brown sandy CLAY	Atterberg 1 Point	21		100	43	22	21						
1575858	TP121	Not Given	1.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		94	42	24	18						
1575859	TP125	Not Given	2.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	16		95	33	17	16						
1575851	WS82	Not Given	1.20	1.65	D	Brown slightly sandy CLAY	Atterberg 1 Point	27		100	49	27	22						
1575852	WS83	Not Given	1.20	1.65	D	Brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	23		98	48	25	23						
1575853	WS87	Not Given	2.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	14		92	29	15	14						
1575854	WS89	Not Given	3.00	3.45	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	21		90	39	20	19						
1575855	WS93	Not Given	2.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	28		100	50	25	25						
1575856	WS98	Not Given	1.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	15		91	32	16	16						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Szczepan Bielatowicz
 PL Deputy of Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-14080
Date Sampled: 08/06/2020
Date Received: 15/06/2020
Date Tested: 24/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 12 The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

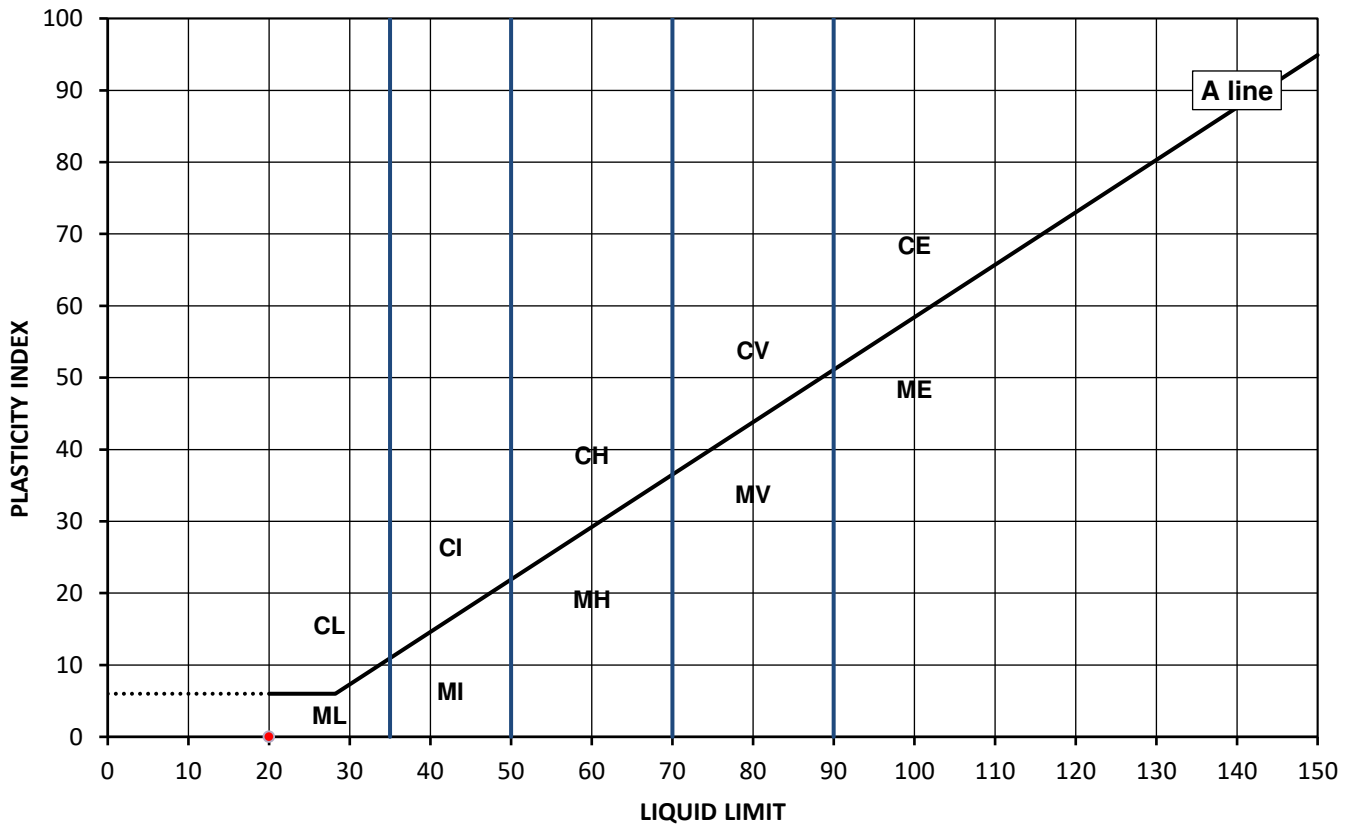
Test Results:

Laboratory Reference: 1533486
Hole No.: WS100
Sample Reference: Not Given
Soil Description: Brown SAND

Depth Top [m]: 0.80
Depth Base [m]: 1.00
Sample Type: NS

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
21	20	NP	NP	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: NP - non plastic

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP
 Contact: Nicola Swallow
 Site Address: Area 12 The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-14080
 Date Sampled: 10/06/2020
 Date Received: 15/06/2020
 Date Tested: 23/06/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

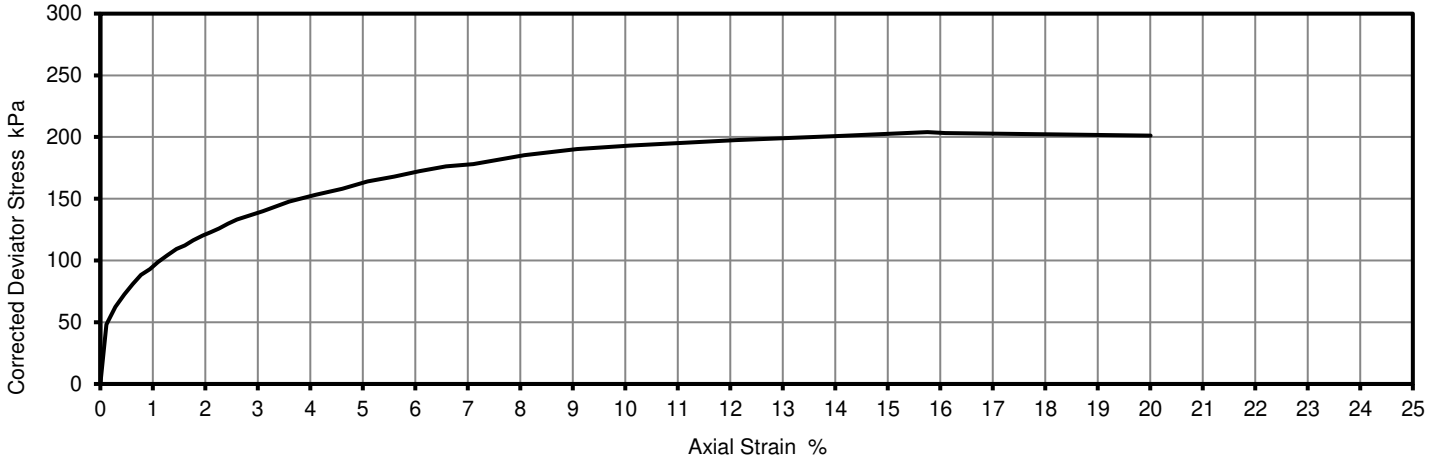
Laboratory Reference: 1533485
 Hole No.: BH11
 Sample Reference: Not Given
 Sample Description: Brown CLAY

Depth Top [m]: 4.40
 Depth Base [m]: 4.85
 Sample Type: U

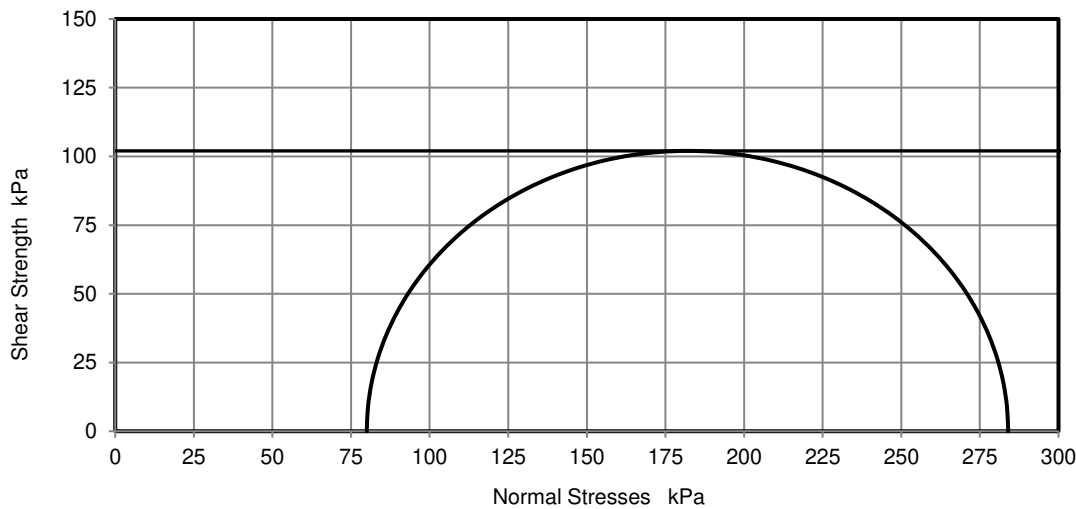
Test Number	1
Length	136.52 mm
Diameter	69.52 mm
Bulk Density	2.01 Mg/m ³
Moisture Content	27 %
Dry Density	1.58 Mg/m ³
Membrane Correction	1.32 kPa

Rate of Strain	2.00 %/min
Cell Pressure	80 kPa
Axial Strain at failure	15.8 %
Deviator Stress, (σ ₁ - σ ₃) _f	204 kPa
Undrained Shear Strength, c _u	102 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.29 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Aleksandra Jurochnik
 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

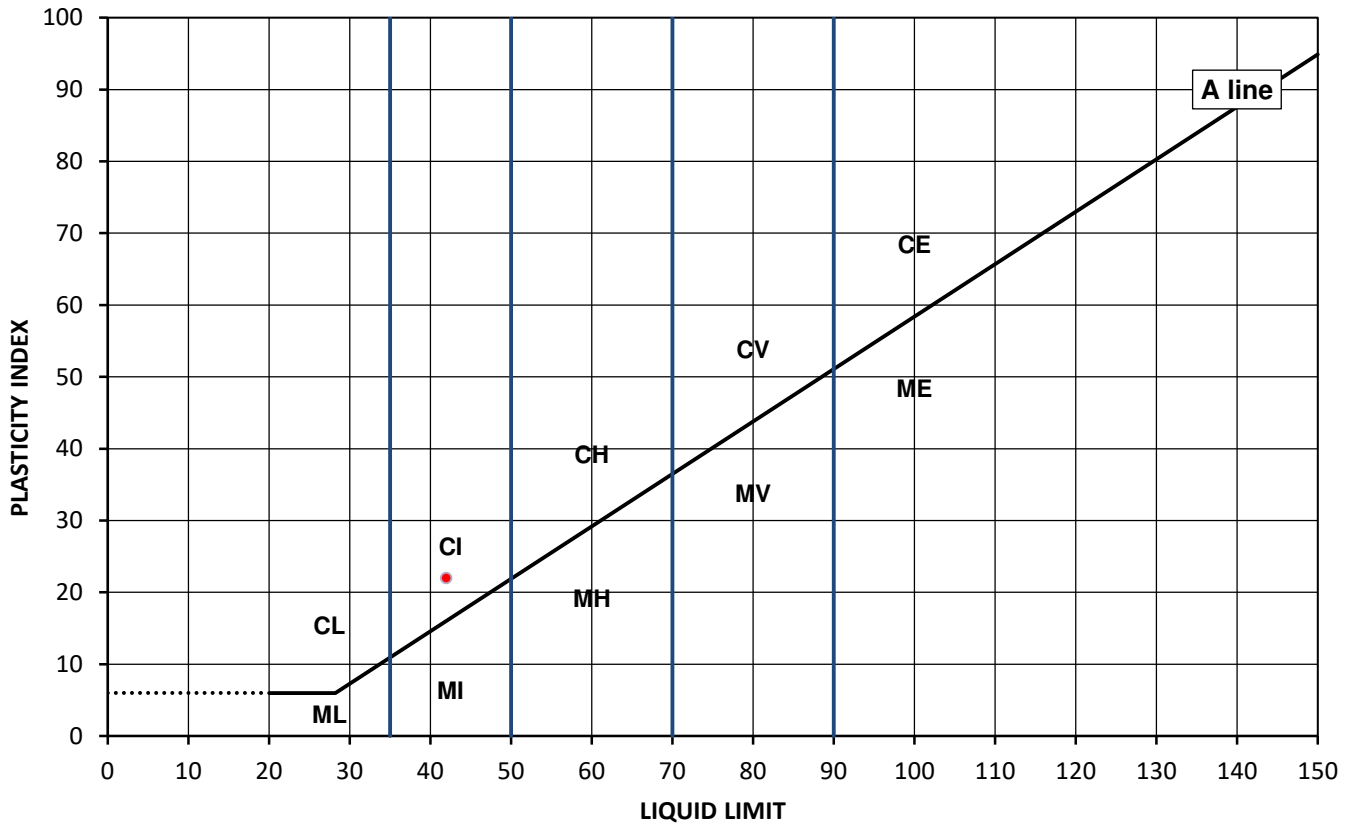
Test Results:

Laboratory Reference: 1550451
Hole No.: SA06
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	42	20	22	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

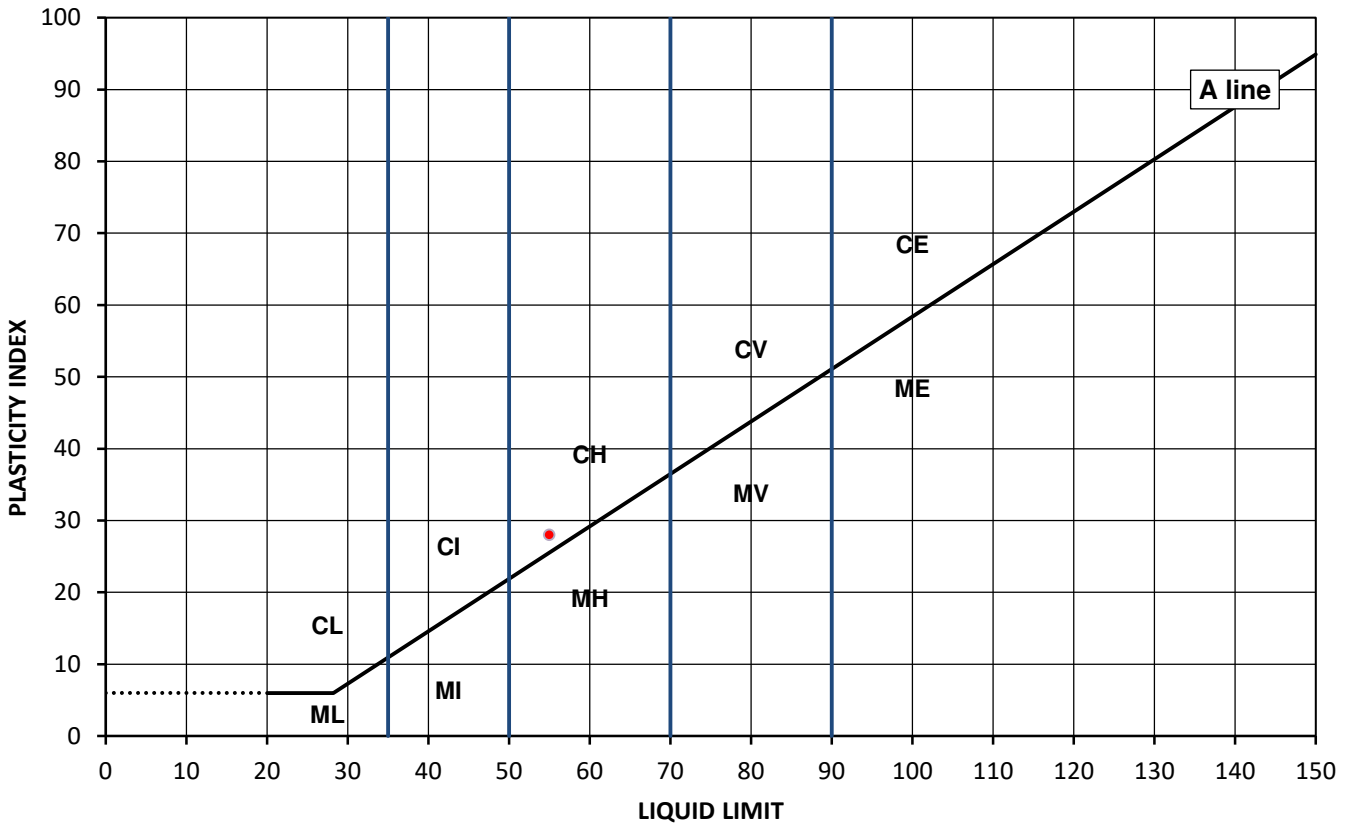
Test Results:

Laboratory Reference: 1550452
Hole No.: SA07
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	55	27	28	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

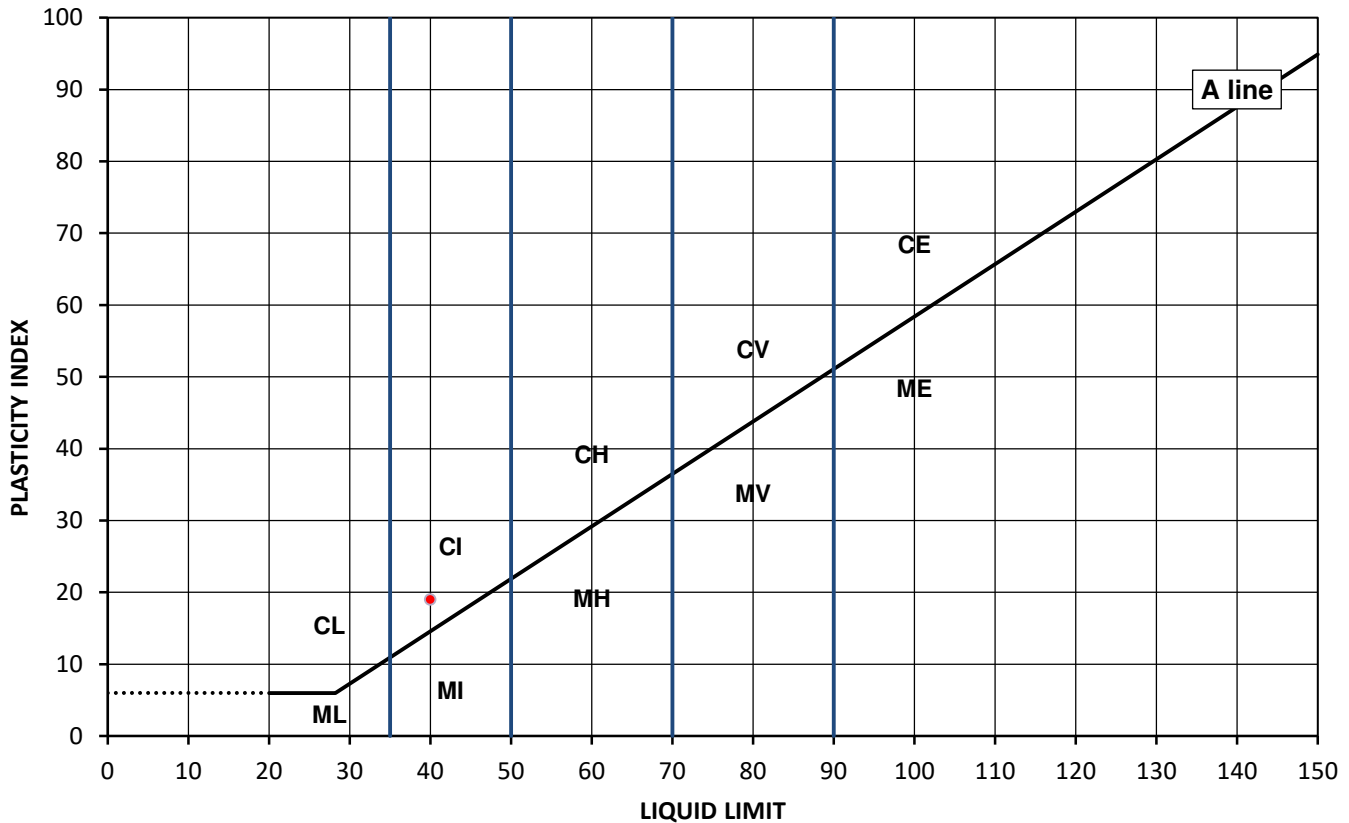
Test Results:

Laboratory Reference: 1550453
Hole No.: TP133
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	40	21	19	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Technical Reviewer
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4041

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Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

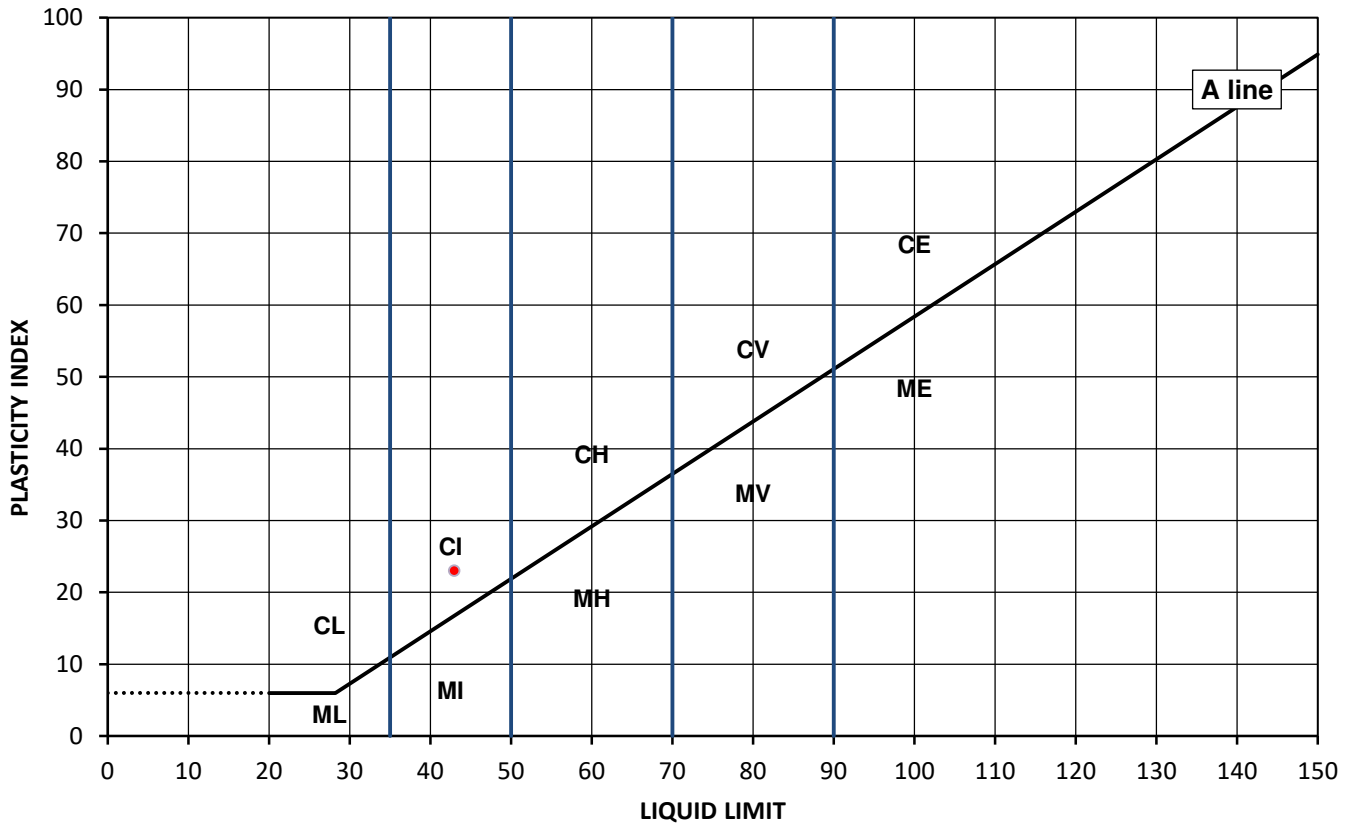
Test Results:

Laboratory Reference: 1550454
Hole No.: TP134
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 0.70
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	43	20	23	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

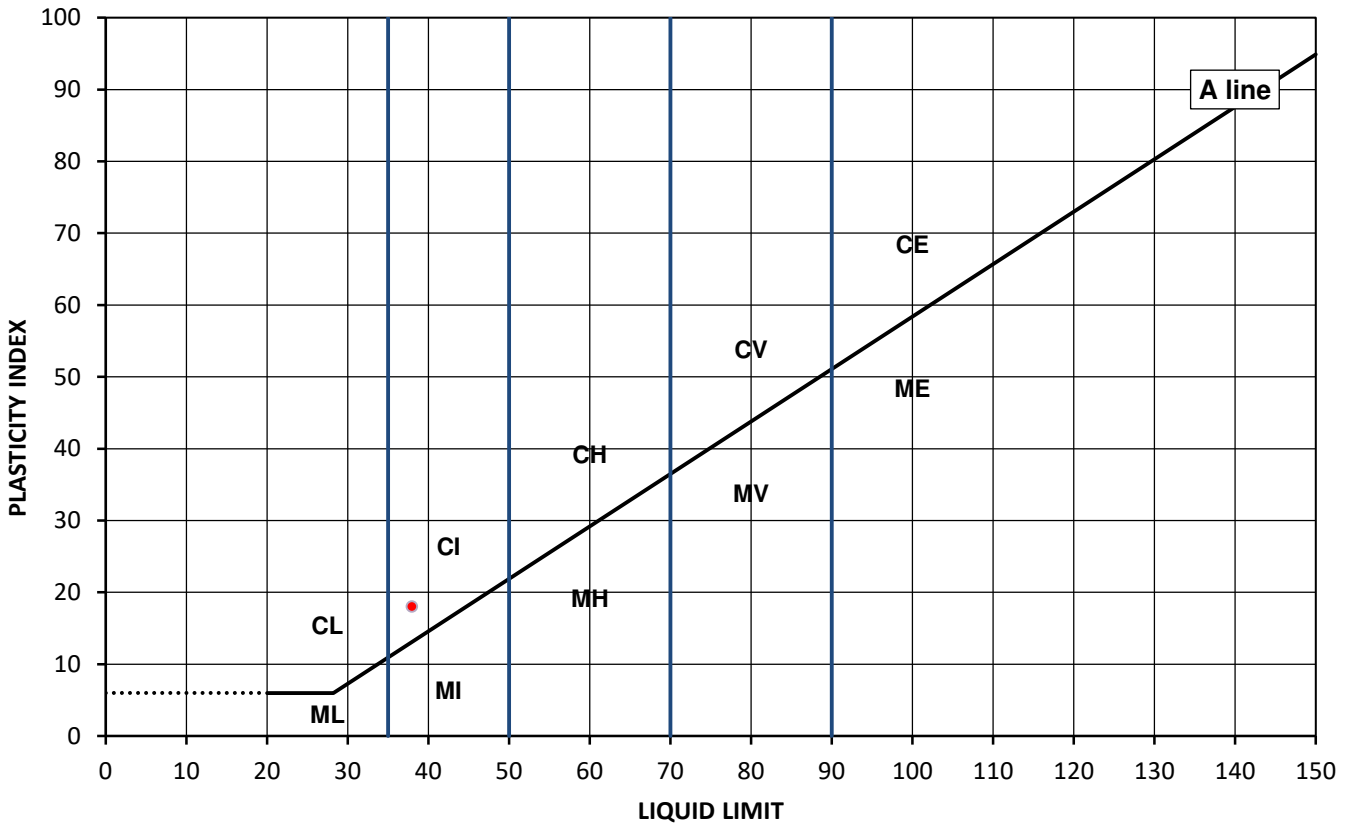
Test Results:

Laboratory Reference: 1550455
Hole No.: TP137
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 0.90
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	38	20	18	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 18/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

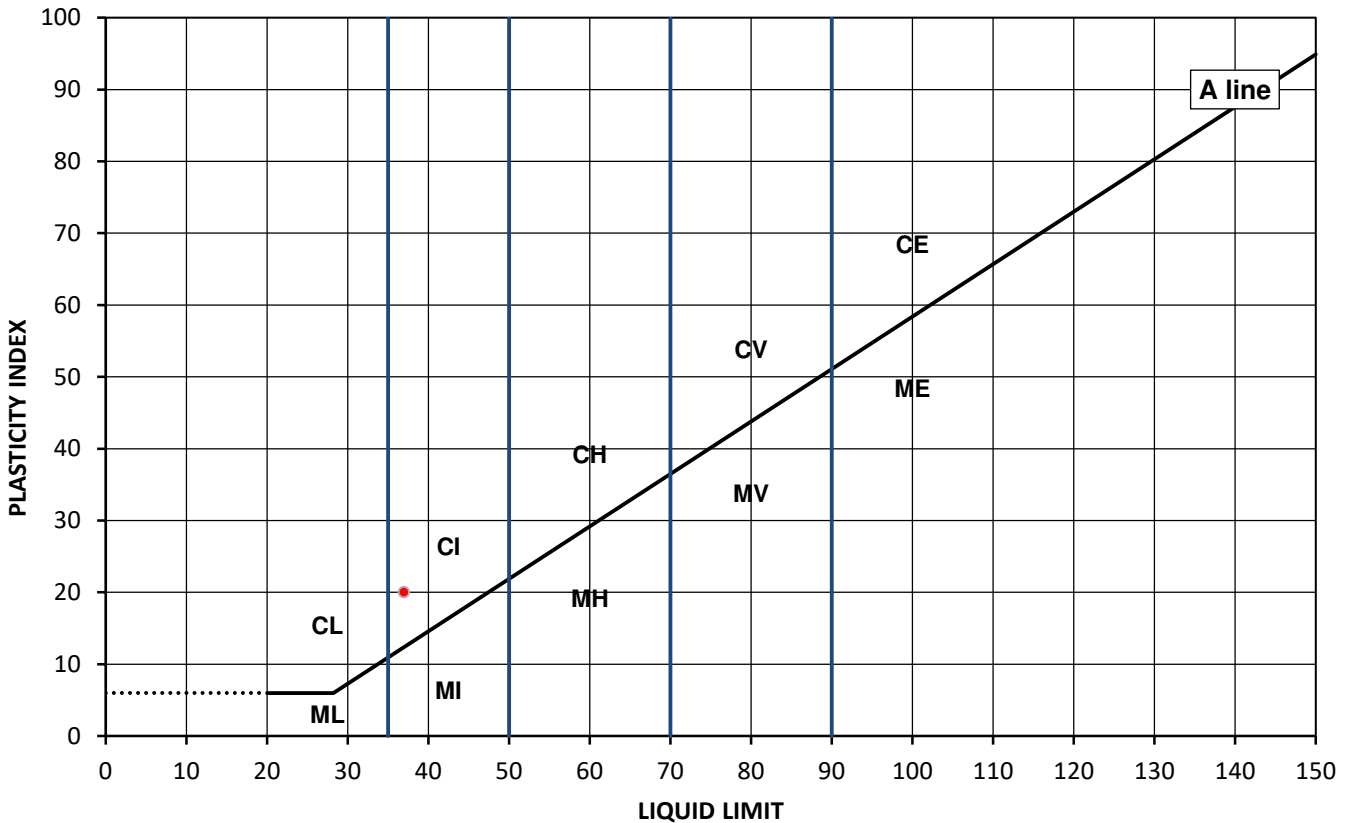
Test Results:

Laboratory Reference: 1550456
Hole No.: TP145
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	37	17	20	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

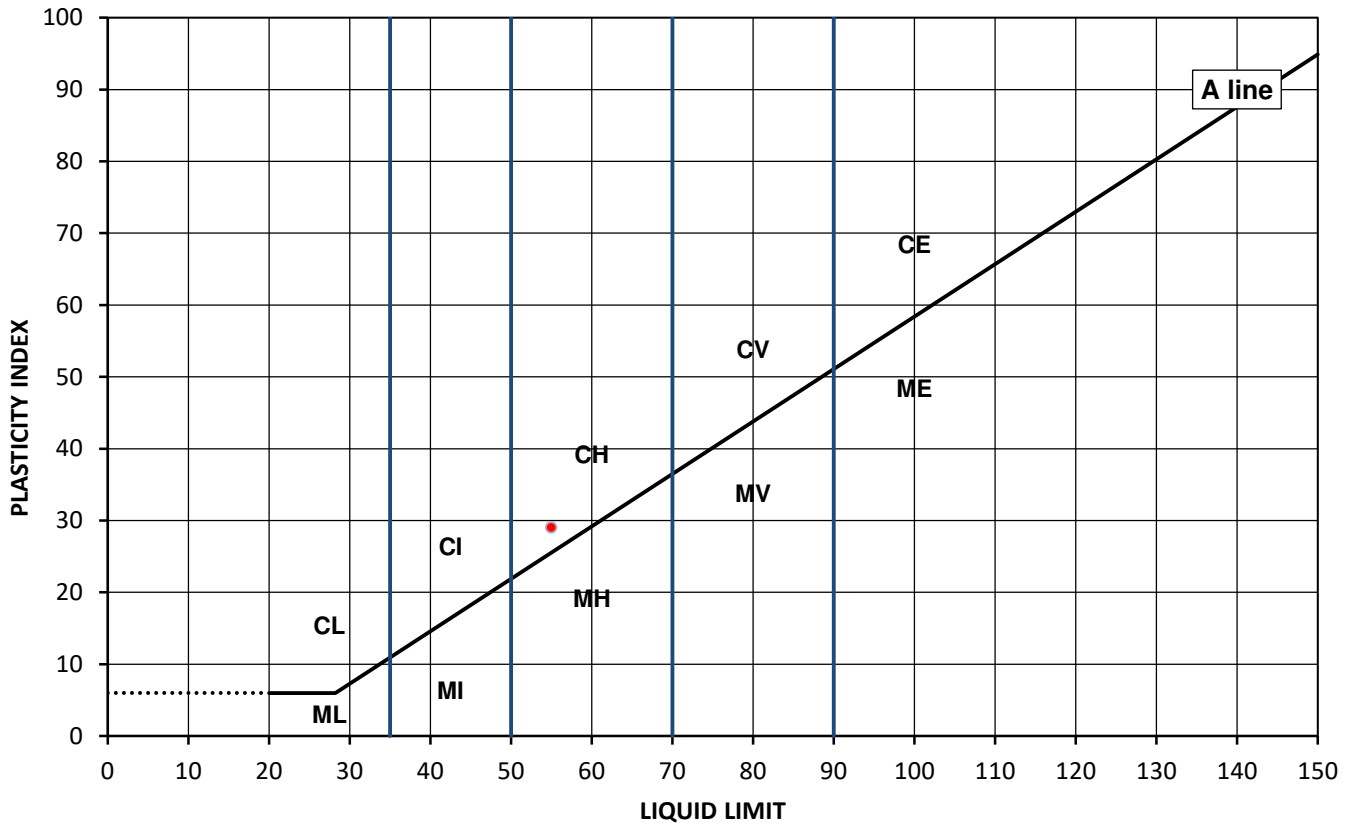
Test Results:

Laboratory Reference: 1550457
Hole No.: TP150
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
23	55	26	29	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

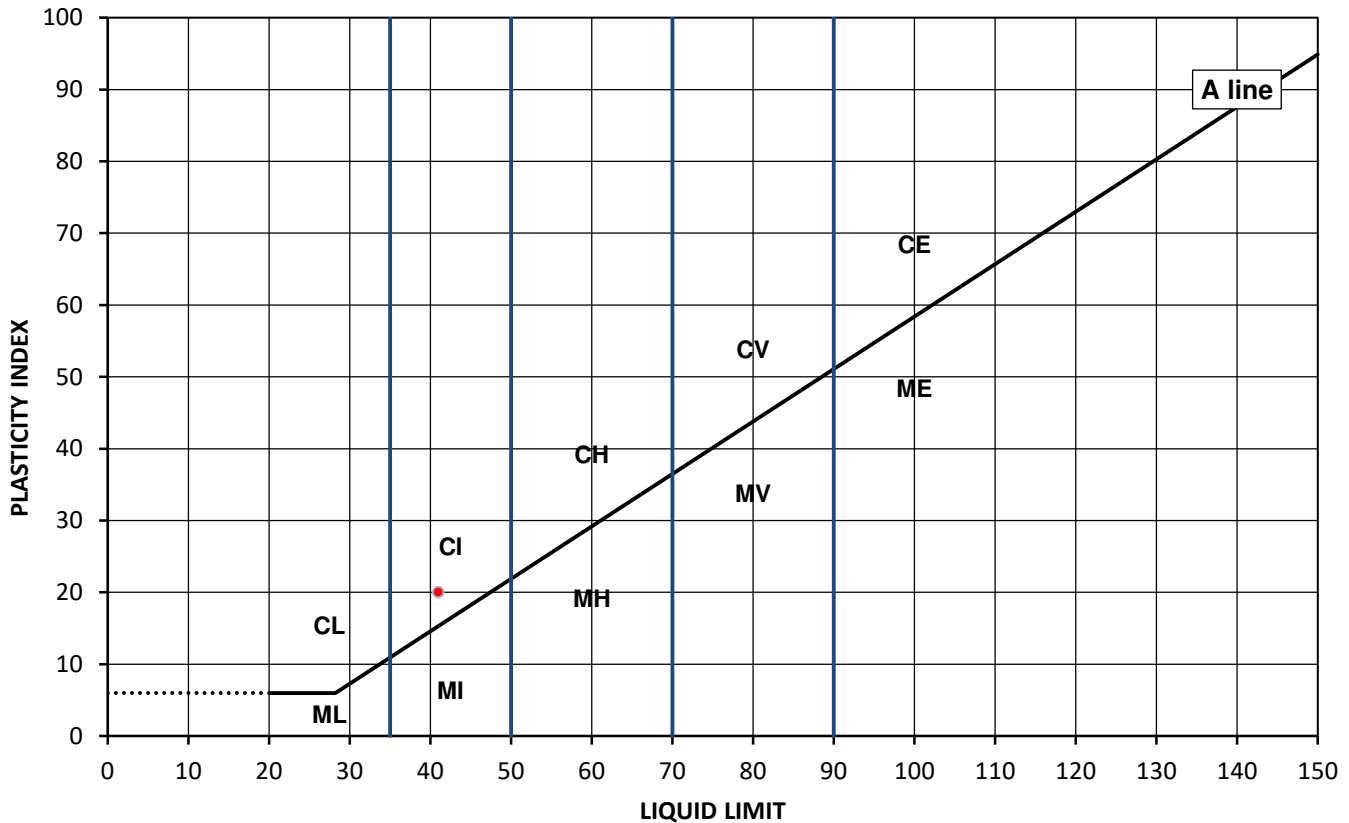
Test Results:

Laboratory Reference: 1550458
Hole No.: TP153
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
21	41	21	20	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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TEST CERTIFICATE

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

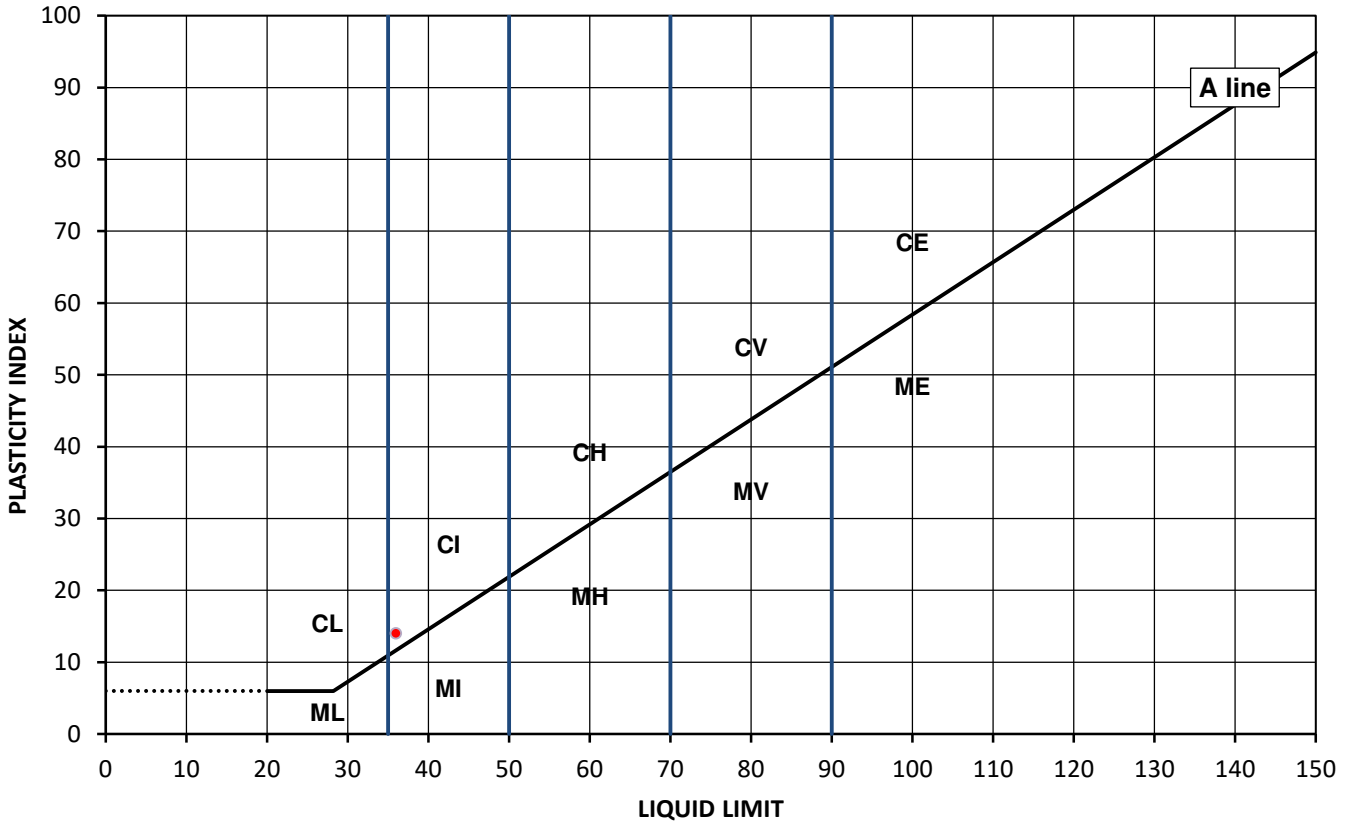
Test Results:

Laboratory Reference: 1550459
Hole No.: TP161
Sample Reference: Not Given
Soil Description: Brown sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
36	36	22	14	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Technical Reviewer
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Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

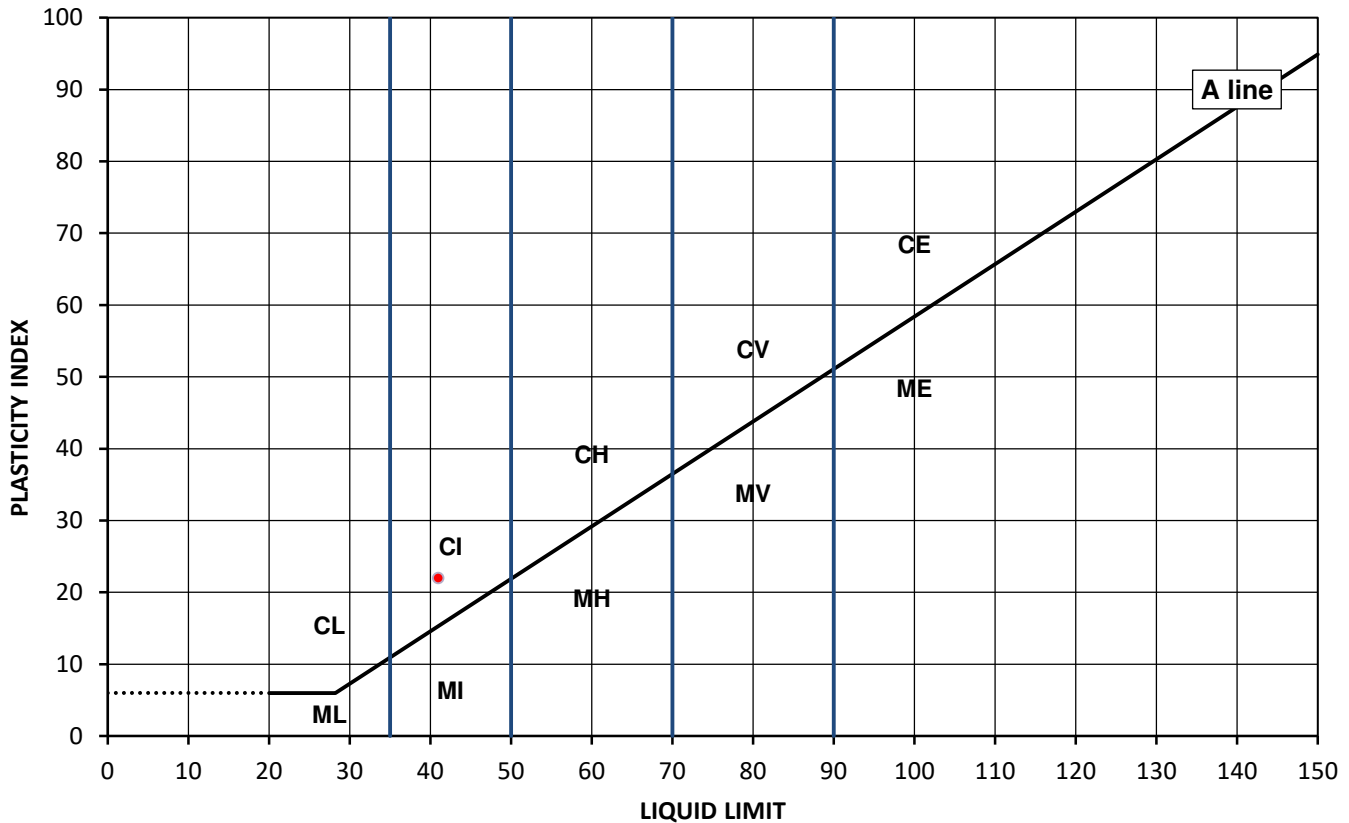
Test Results:

Laboratory Reference: 1550460
Hole No.: TP187
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	41	19	22	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 12/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

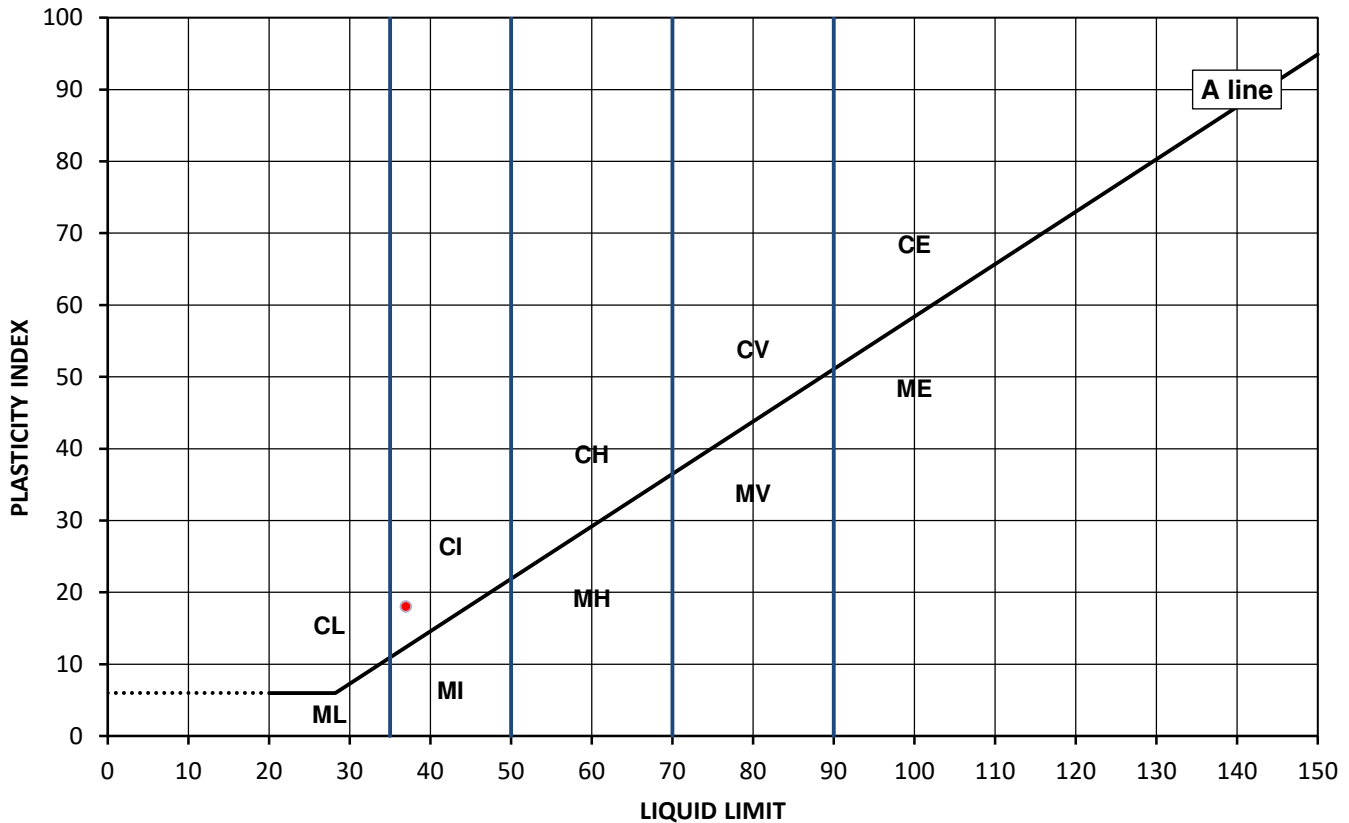
Test Results:

Laboratory Reference: 1550461
Hole No.: WS105
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	37	19	18	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 12/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

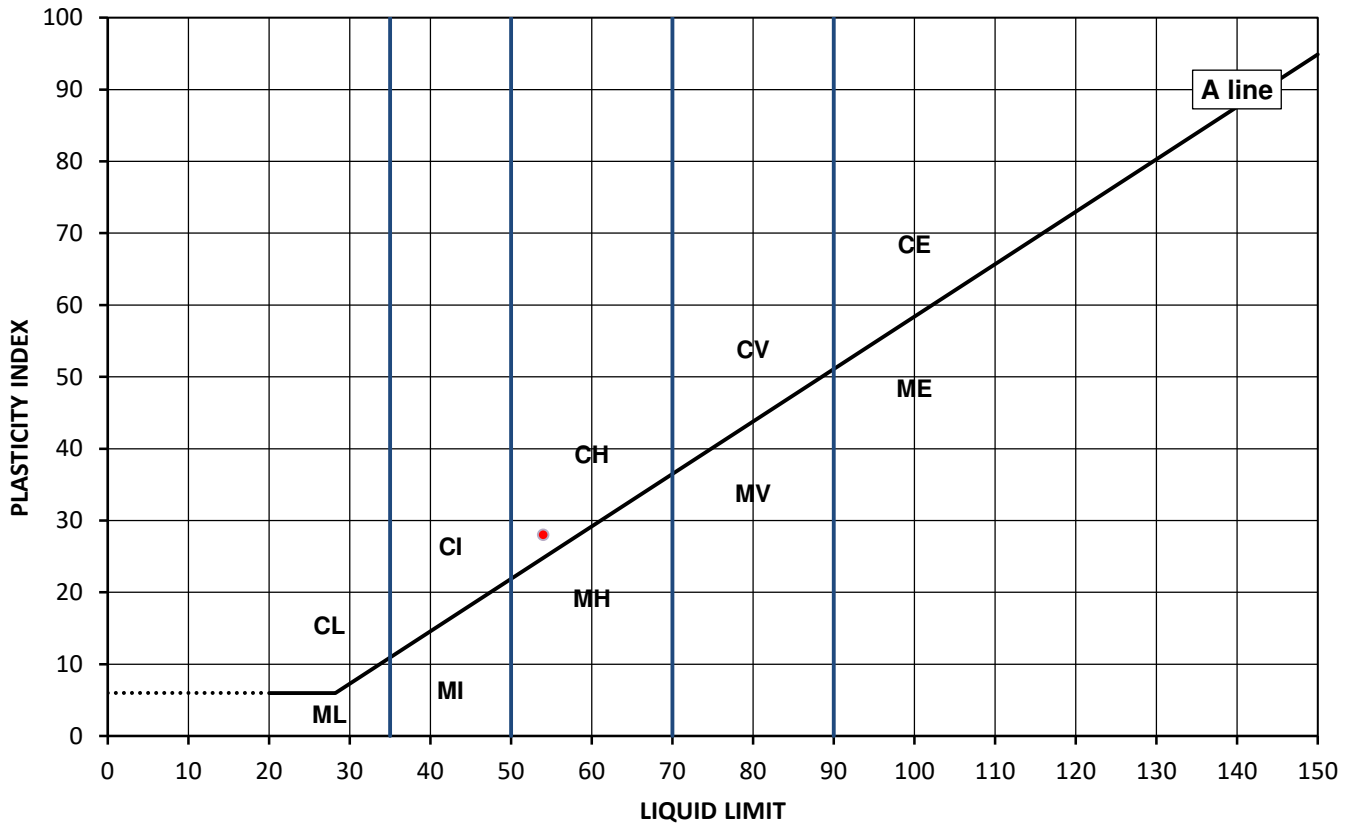
Test Results:

Laboratory Reference: 1550462
Hole No.: WS109
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
28	54	26	28	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

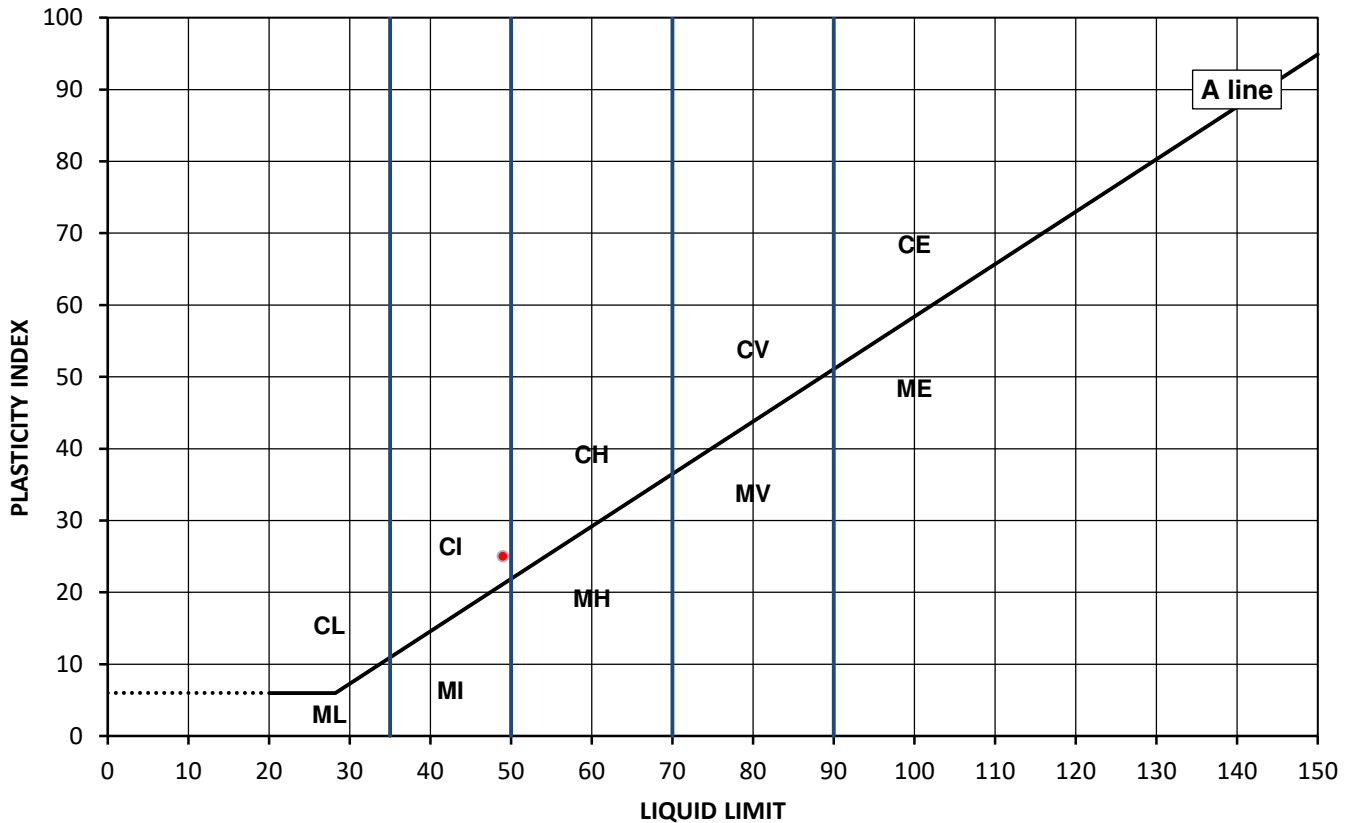
Test Results:

Laboratory Reference: 1550463
Hole No.: WS113
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
25	49	24	25	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

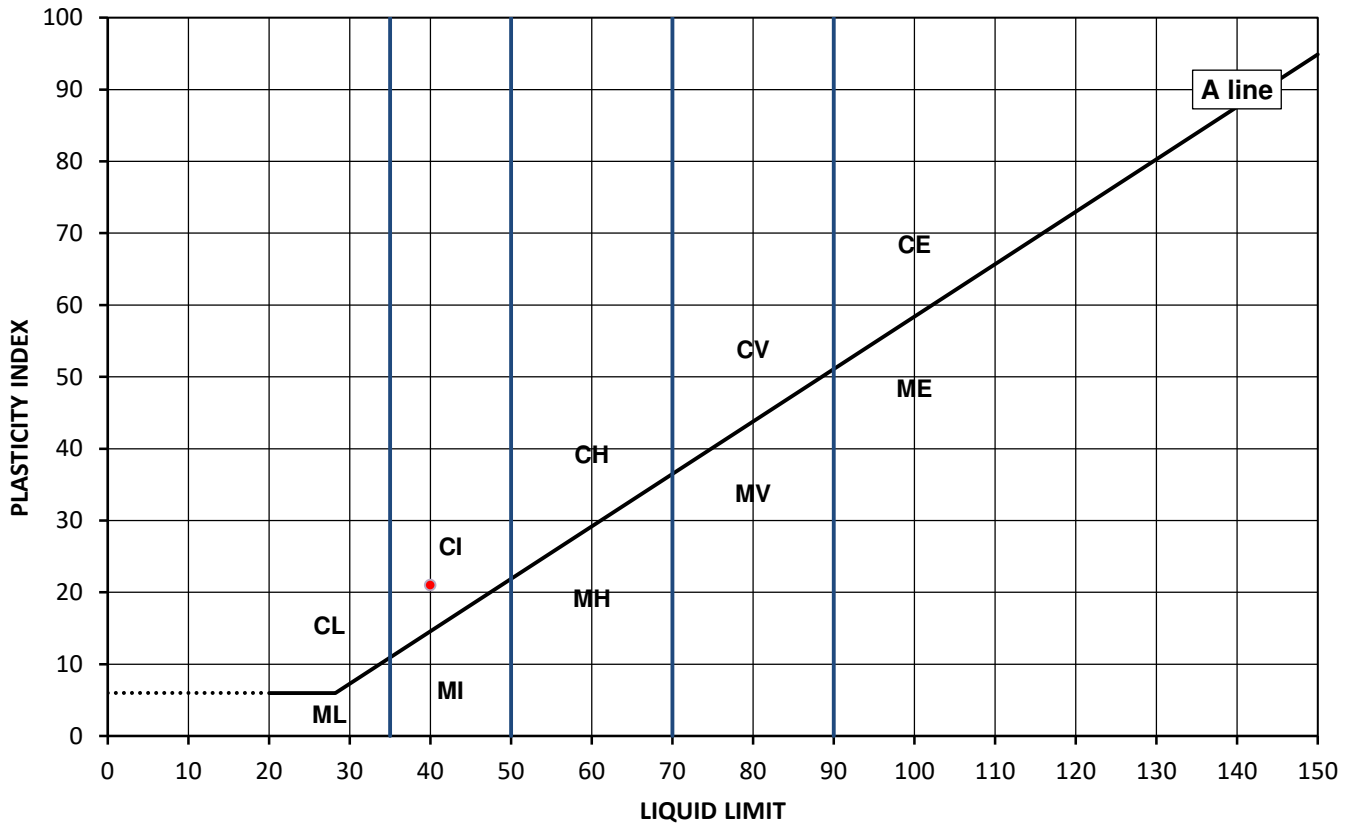
Test Results:

Laboratory Reference: 1550464
Hole No.: WS116
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	40	19	21	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

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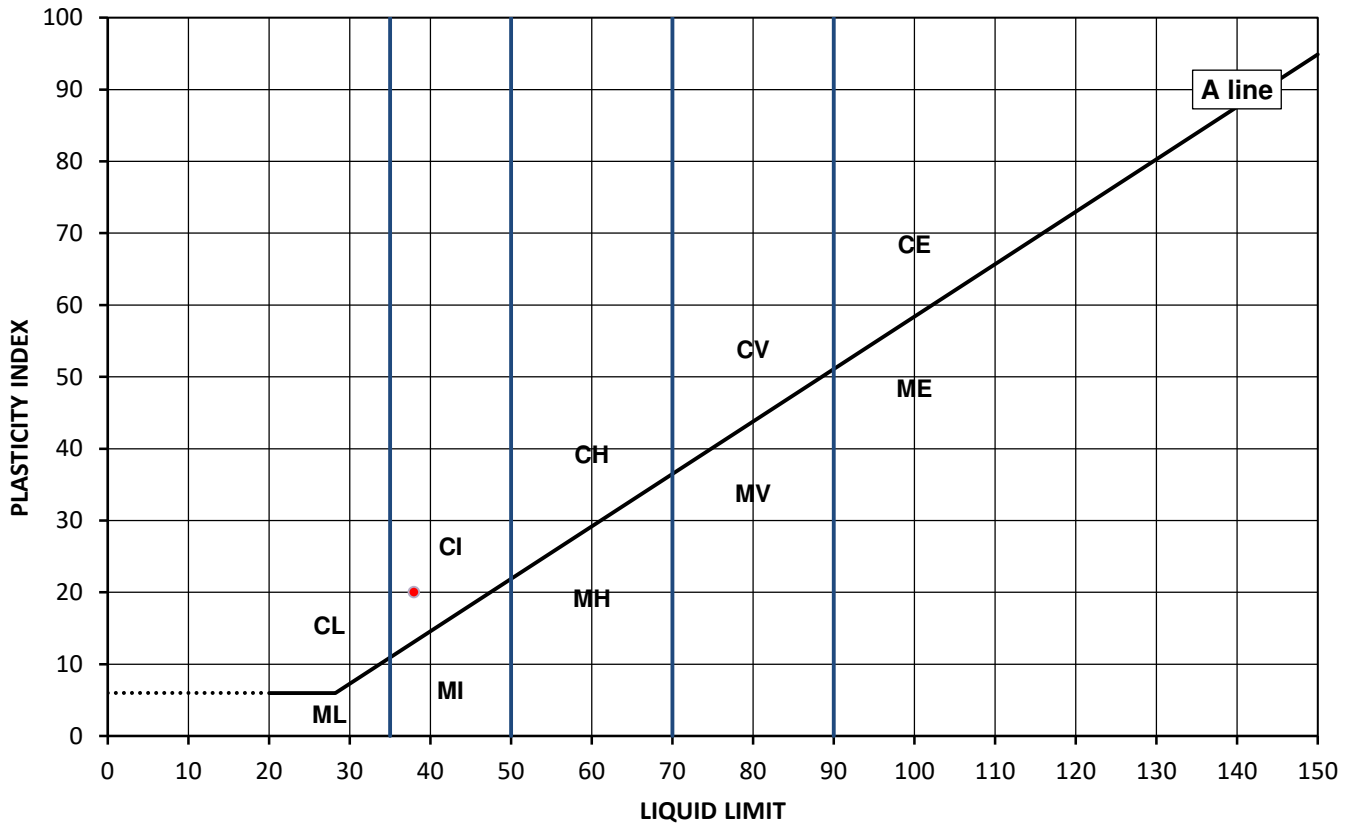
Test Results:

Laboratory Reference: 1550465
Hole No.: WS117
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	38	18	20	81



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

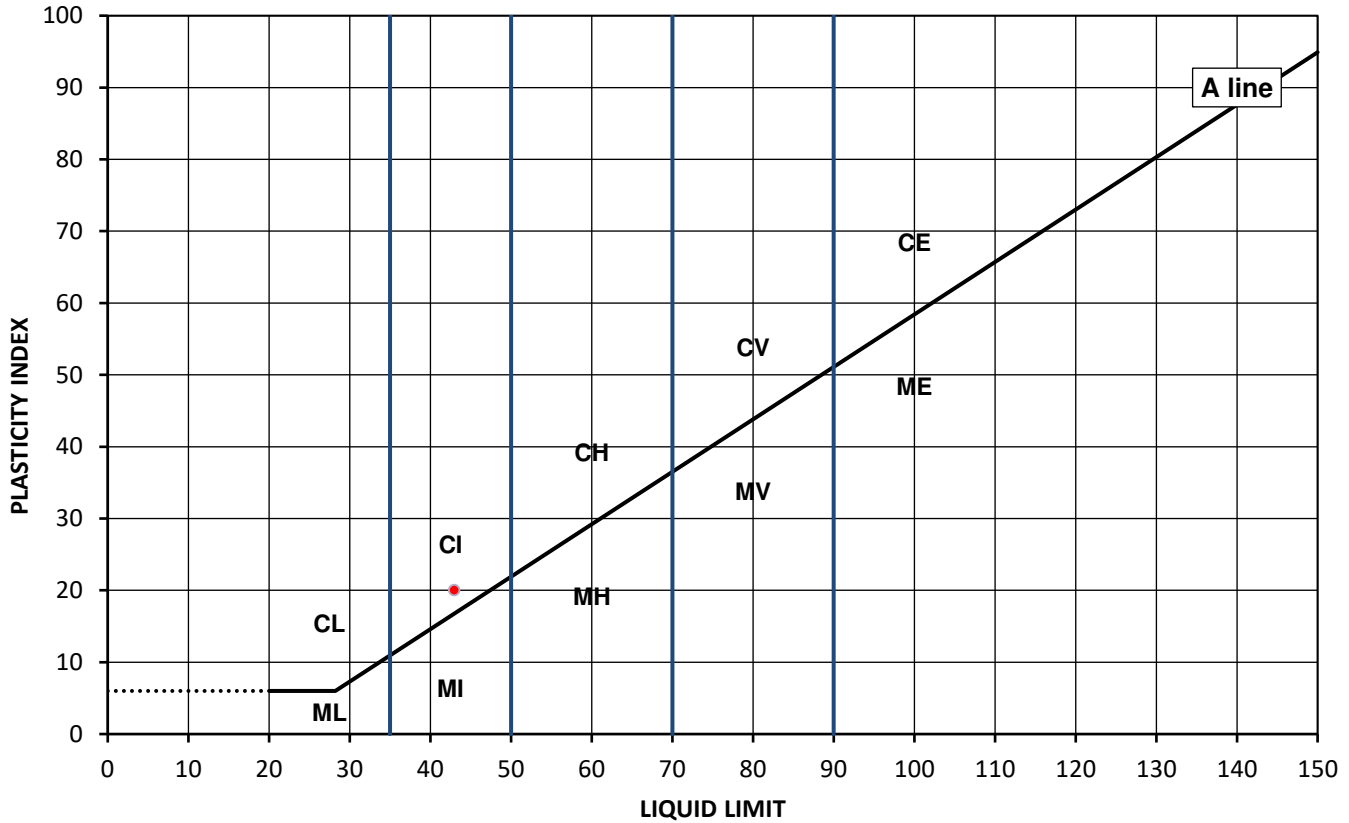
Test Results:

Laboratory Reference: 1550466
Hole No.: WS122
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
32	43	23	20	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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4041

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 Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client Reference: C4259

Job Number: 20-17281

Date Sampled: 17/06 - 22/06/2020

Date Received: 01/07/2020

Date Tested: 11/07/2020

Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %
		Reference	Depth Top m	Depth Base m	Type					% Passing 425um %	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
1550451	SA06	Not Given	0.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		97	42	20	22				
1550452	SA07	Not Given	1.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	18		100	55	27	28				
1550453	TP133	Not Given	0.50	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		98	40	21	19				
1550454	TP134	Not Given	0.70	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	16		100	43	20	23				
1550455	TP137	Not Given	0.90	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	18		100	38	20	18				
1550456	TP145	Not Given	0.50	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	17		100	37	17	20				
1550457	TP150	Not Given	2.00	Not Given	D	Dark brown slightly sandy CLAY	Atterberg 1 Point	23		100	55	26	29				
1550458	TP153	Not Given	1.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	21		100	41	21	20				
1550459	TP161	Not Given	1.50	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	36		100	36	22	14				
1550460	TP187	Not Given	1.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		99	41	19	22				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Aleksandra Jurochnik
 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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4041

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 12/06 - 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL	PL	PI	bulk	dry	PD	
			m	m													
1550461	WS105	Not Given	1.20	1.65	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		99	37	19	18				
1550462	WS109	Not Given	2.00	2.45	D	Dark brown slightly sandy CLAY	Atterberg 1 Point	28		100	54	26	28				
1550463	WS113	Not Given	1.20	1.65	D	Dark brown slightly sandy CLAY	Atterberg 1 Point	25		100	49	24	25				
1550464	WS116	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		97	40	19	21				
1550465	WS117	Not Given	1.20	1.65	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	15		81	38	18	20				
1550466	WS122	Not Given	2.00	2.45	D	Dark brown slightly gravelly sandy CLAY	Atterberg 1 Point	32		99	43	23	20				

Note: # Non accredited; NP - Non plastic

Comments:

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

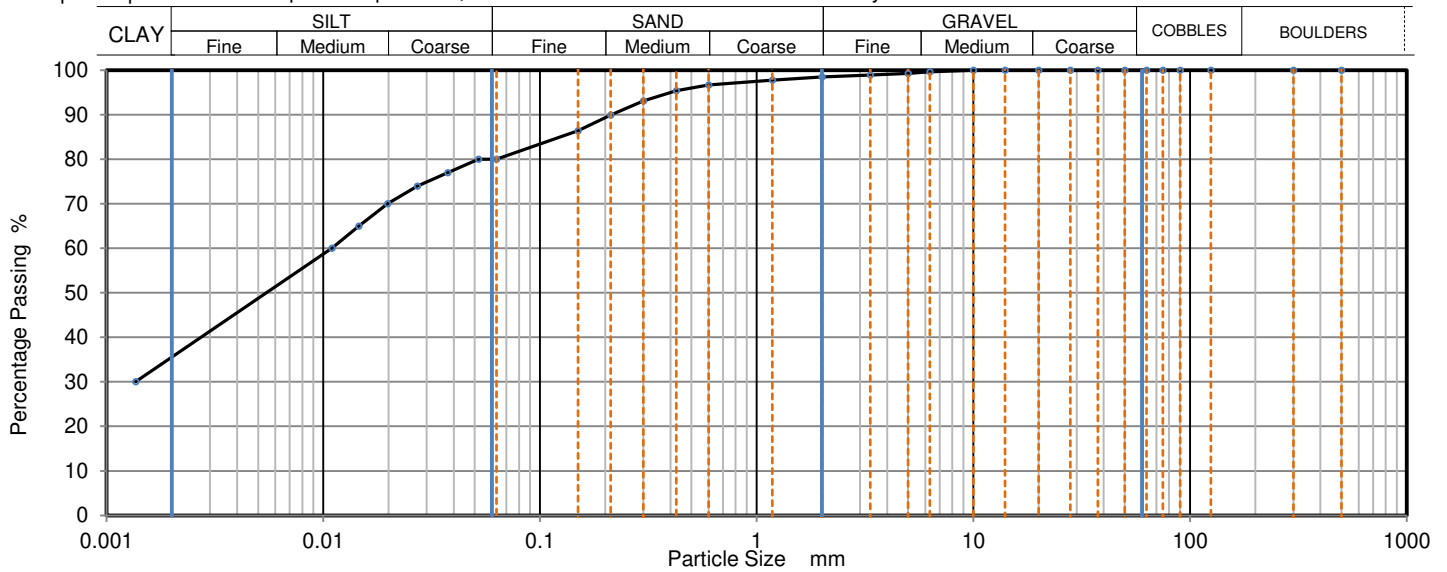
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550425
Hole No.: SA06
Sample Reference: Not Given
Sample Description: Brown sandy very clayey SILT
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0519	80
300	100	0.0376	77
125	100	0.0272	74
90	100	0.0198	70
75	100	0.0146	65
63	100	0.0109	60
50	100	0.0075	30
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	99		
2	99	Particle density (assumed)	
1.18	98	2.65	Mg/m3
0.6	97		
0.425	95		
0.3	93		
0.212	90		
0.15	86		
0.063	80		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	1.50
Sand	18.90
Silt	43.80
Clay	35.80

Grading Analysis		
D100	mm	10
D60	mm	0.0107
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

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Client: Brownfield Solutions Ltd
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Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550426

Depth Top [m]: 1.00

Hole No.: SA07

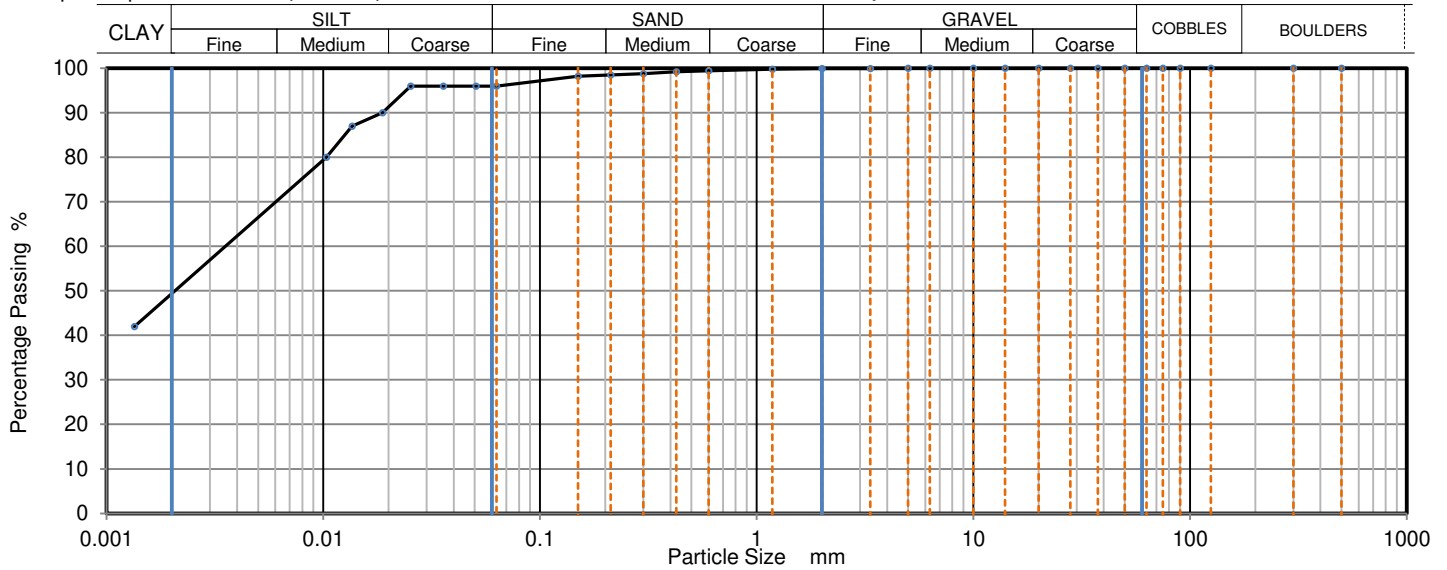
Depth Base [m]: Not Given

Sample Reference: Not Given

Sample Type: B

Sample Description: Brown slightly sandy very silty CLAY

Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0506	96
300	100	0.0358	96
125	100	0.0253	96
90	100	0.0188	90
75	100	0.0136	87
63	100	0.0103	80
50	100	0.0075	42
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100	Particle density (assumed) 2.65 Mg/m ³	
0.6	99		
0.425	99		
0.3	99		
0.212	99		
0.15	98		
0.063	96		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.10
Sand	3.60
Silt	47.00
Clay	49.30

Grading Analysis		
D100	mm	6.3
D60	mm	0.00353
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
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Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550427

Hole No.: SA08A

Sample Reference: Not Given

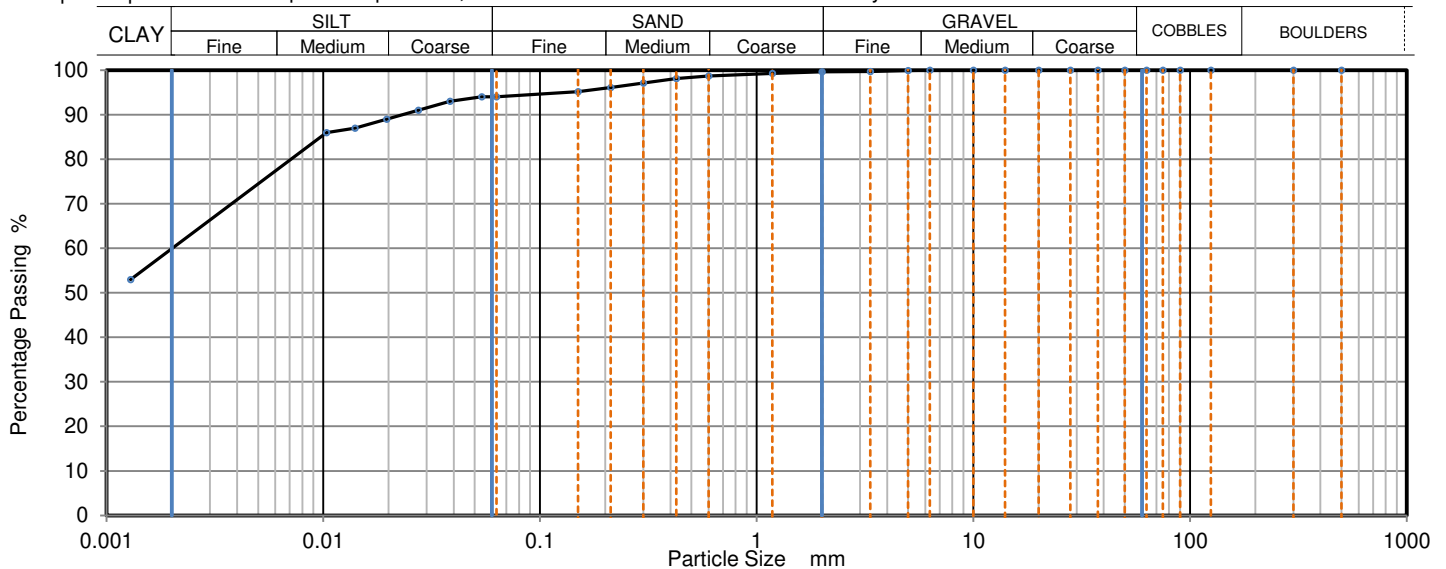
Sample Description: Brown slightly sandy very silty CLAY

Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 2.00

Depth Base [m]: Not Given

Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0537	94
300	100	0.0384	93
125	100	0.0275	91
90	100	0.0196	89
75	100	0.0140	87
63	100	0.0103	86
50	100	0.0075	83
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99	Particle density (assumed) 2.65 Mg/m3	
0.6	99		
0.425	98		
0.3	97		
0.212	96		
0.15	95		
0.063	94		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.40
Sand	5.30
Silt	34.30
Clay	60.00

Grading Analysis		
D100	mm	6.3
D60	mm	0.002
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

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Particle Size Distribution

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Tested in Accordance with: BS 1377-2: 1990

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Client Address: William Smith House, 173 - 183 Witton Street,
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CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

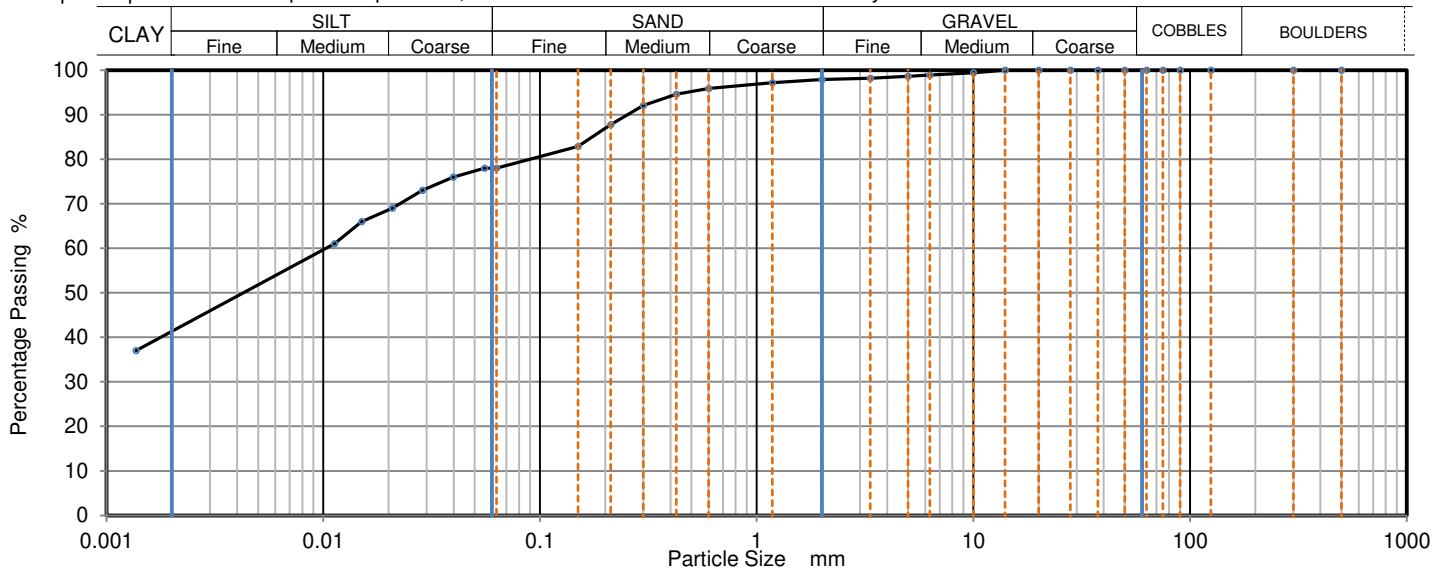
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550428
Hole No.: SA09
Sample Reference: Not Given
Sample Description: Brown sandy very silty CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 0.80
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0555	78
300	100	0.0397	76
125	100	0.0286	73
90	100	0.0209	69
75	100	0.0150	66
63	100	0.0113	61
50	100	0.0014	37
37.5	100		
28	100		
20	100		
14	100		
10	99		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	97	Particle density (assumed) 2.65 Mg/m3	
0.6	96		
0.425	95		
0.3	92		
0.212	88		
0.15	83		
0.063	78		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	2.10
Sand	20.10
Silt	36.10
Clay	41.70

Grading Analysis		
D100	mm	14
D60	mm	0.01
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

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PL Technical Reviewer
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Particle Size Distribution

i2 Analytical Ltd
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Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

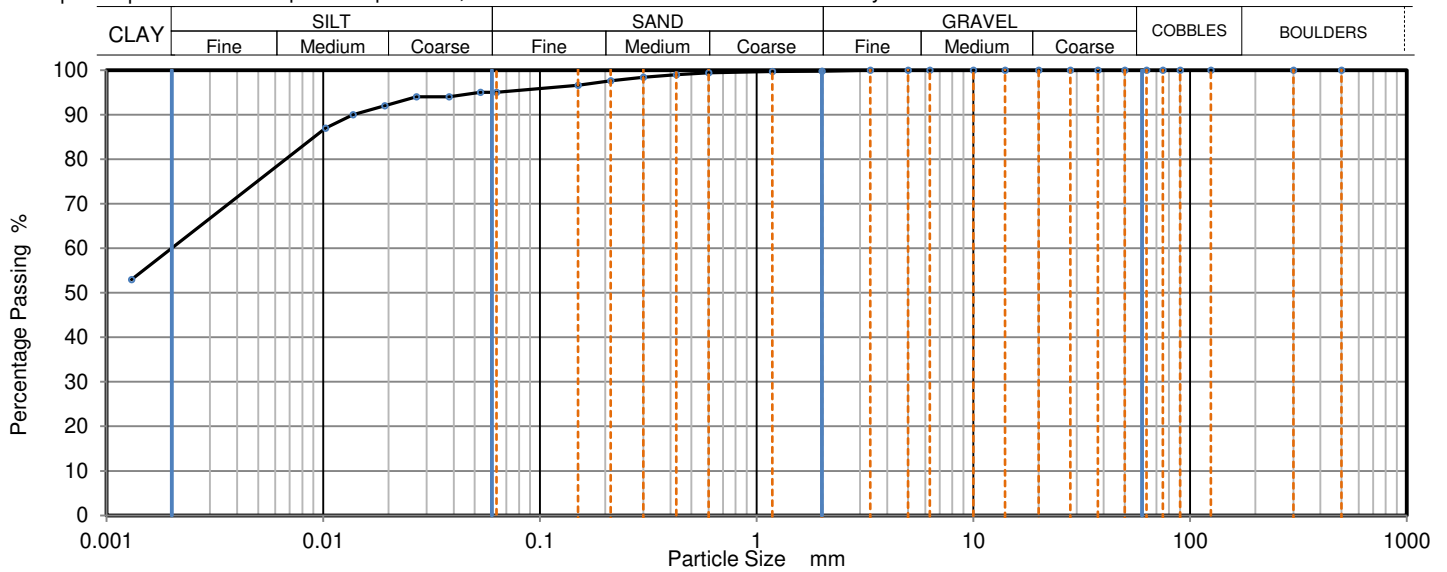
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550429
Hole No.: TP135
Sample Reference: Not Given
Sample Description: Brown very silty CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0532	95
300	100	0.0380	94
125	100	0.0269	94
90	100	0.0192	92
75	100	0.0137	90
63	100	0.0102	87
50	100	0.0075	87
37.5	100	0.0053	53
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100	Particle density (assumed) 2.65 Mg/m ³	
0.6	99		
0.425	99		
0.3	98		
0.212	98		
0.15	97		
0.063	95		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.20
Sand	4.50
Silt	35.40
Clay	59.90

Grading Analysis		
D100	mm	5
D60	mm	0.00201
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

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Particle Size Distribution

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Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

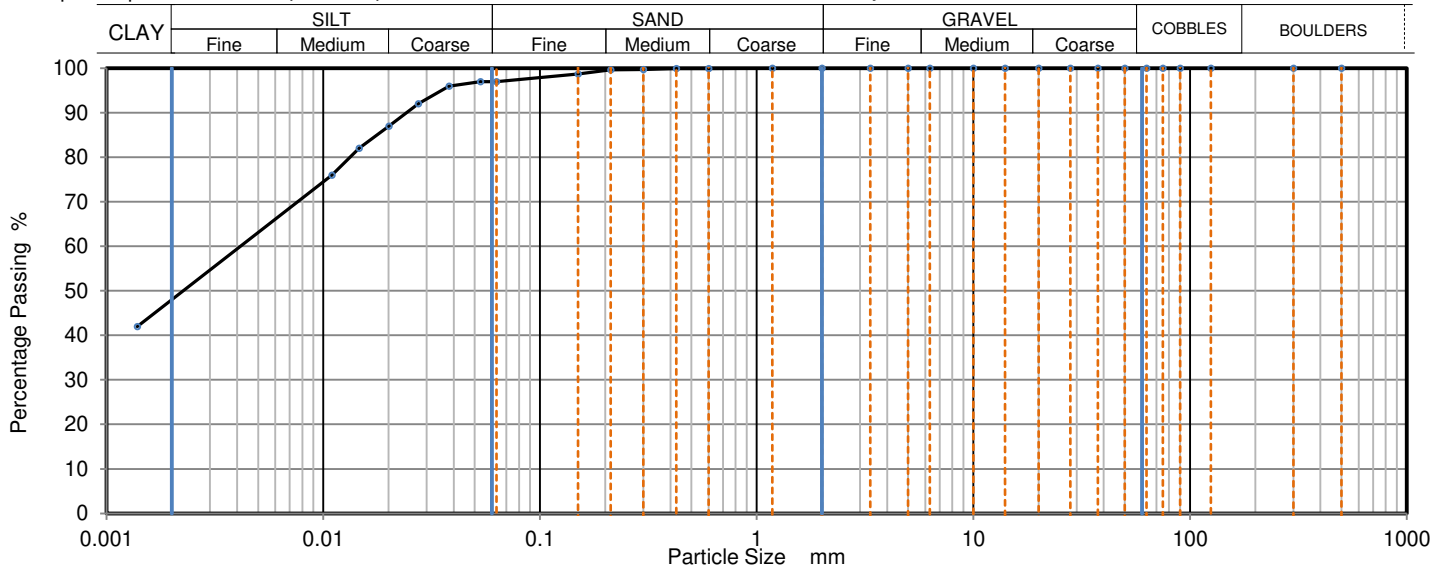
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550430
Hole No.: TP137
Sample Reference: Not Given
Sample Description: Brown very clayey SILT
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0531	97
300	100	0.0380	96
125	100	0.0275	92
90	100	0.0201	87
75	100	0.0146	82
63	100	0.0110	76
50	100	0.0014	42
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100	Particle density (assumed) 2.65 Mg/m3	
0.6	100		
0.425	100		
0.3	100		
0.212	100		
0.15	99		
0.063	97		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.00
Sand	2.60
Silt	49.50
Clay	47.90

Grading Analysis		
D100	mm	3.35
D60	mm	0.00412
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

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Particle Size Distribution

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Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

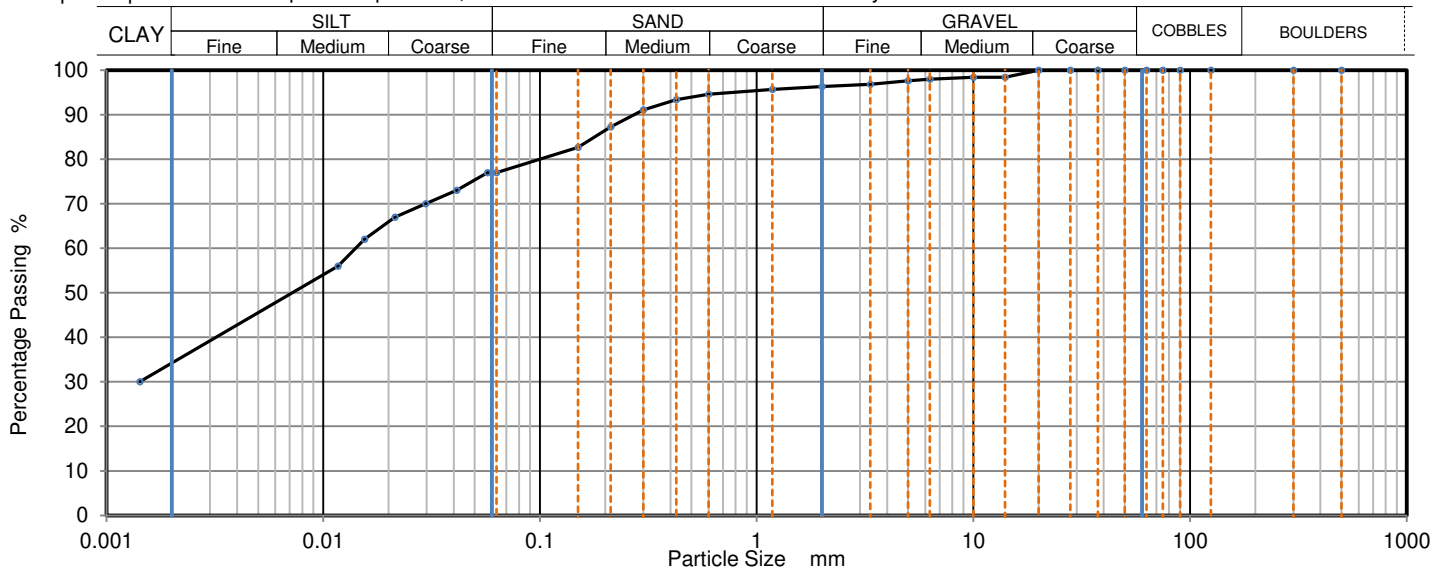
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550431
Hole No.: TP138
Sample Reference: Not Given
Sample Description: Brown sandy very clayey SILT
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.10
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0572	77
300	100	0.0412	73
125	100	0.0297	70
90	100	0.0214	67
75	100	0.0155	62
63	100	0.0117	56
50	100	0.0014	30
37.5	100		
28	100		
20	100		
14	98		
10	98		
6.3	98		
5	98		
3.35	97		
2	96		
1.18	96	Particle density (assumed) 2.65 Mg/m3	
0.6	95		
0.425	93		
0.3	91		
0.212	87		
0.15	83		
0.063	77		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	3.70
Sand	19.70
Silt	42.60
Clay	34.00

Grading Analysis		
D100	mm	20
D60	mm	0.0139
D30	mm	0.00146
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

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Particle Size Distribution

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Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
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CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 18/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

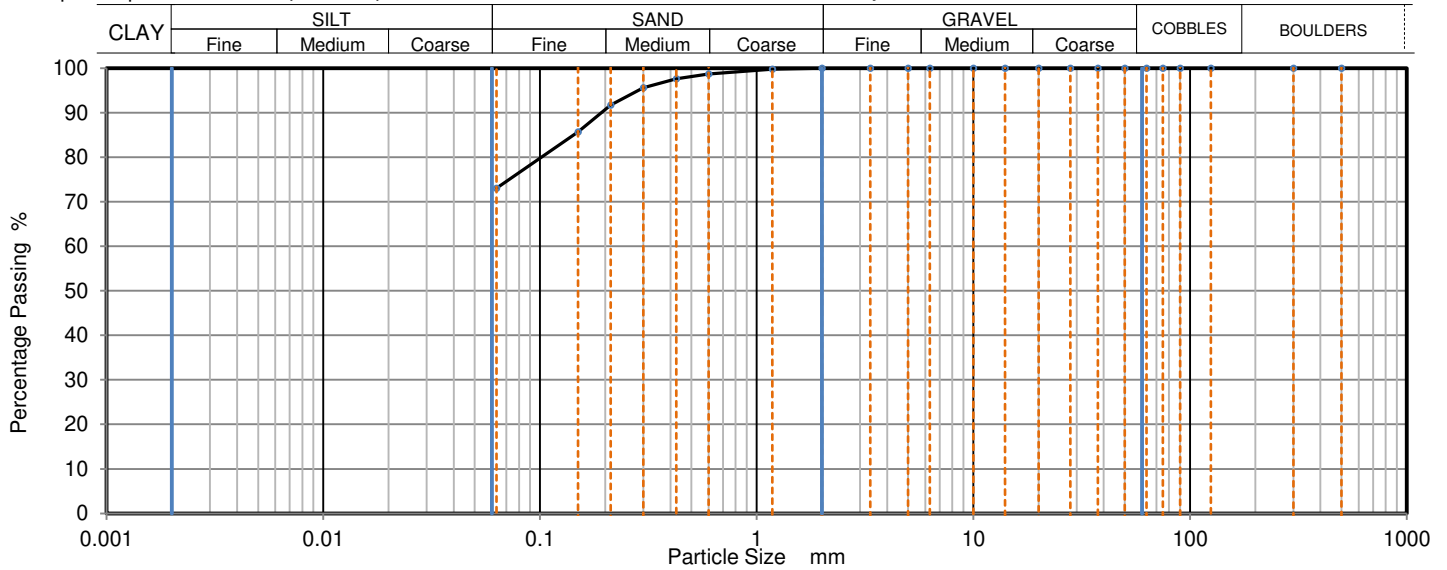
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550432
Hole No.: TP139
Sample Reference: Not Given
Sample Description: Brownish grey sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	98		
0.3	96		
0.212	92		
0.15	86		
0.063	73		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.00
Sand	26.90
Fines <0.063mm	73.10

Grading Analysis		
D100	mm	3.35
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

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Particle Size Distribution

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
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CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 18/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

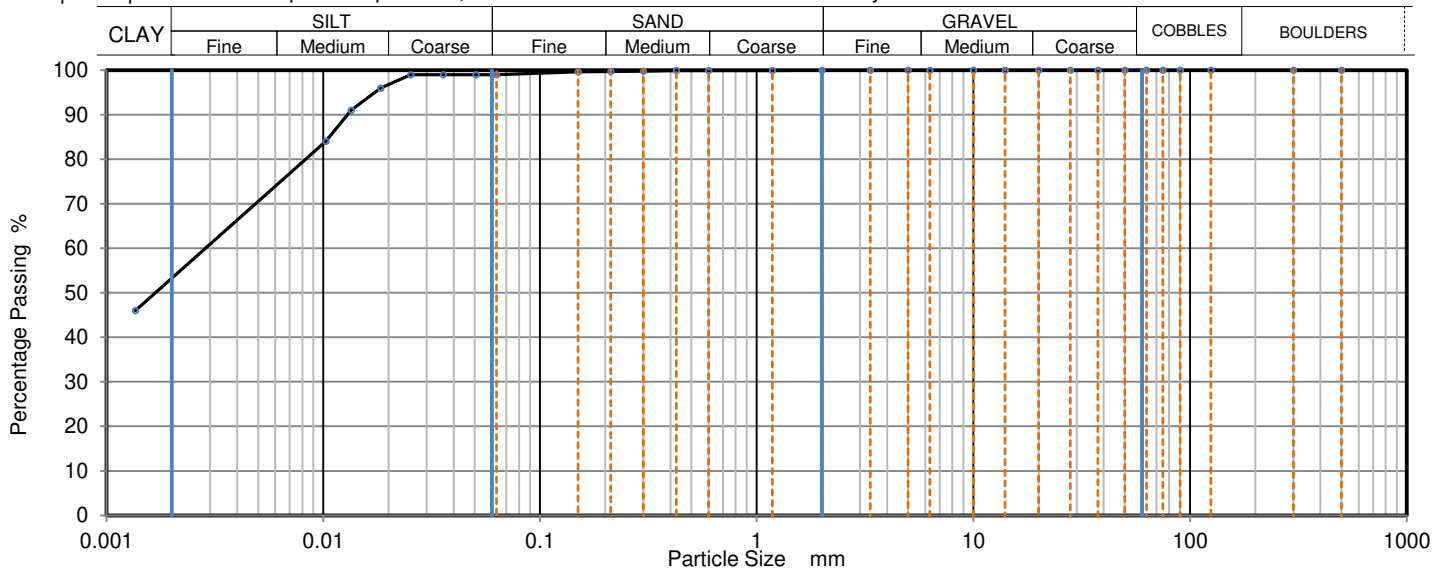
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550433
Hole No.: TP141
Sample Reference: Not Given
Sample Description: Brown very silty CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0507	99
300	100	0.0358	99
125	100	0.0253	99
90	100	0.0184	96
75	100	0.0134	91
63	100	0.0103	84
50	100	0.0075	46
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100	Particle density (assumed) 2.65 Mg/m ³	
0.6	100		
0.425	100		
0.3	100		
0.212	100		
0.15	100		
0.063	99		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.00
Sand	1.10
Silt	45.50
Clay	53.40

Grading Analysis		
D100	mm	3.35
D60	mm	0.00284
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 18/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

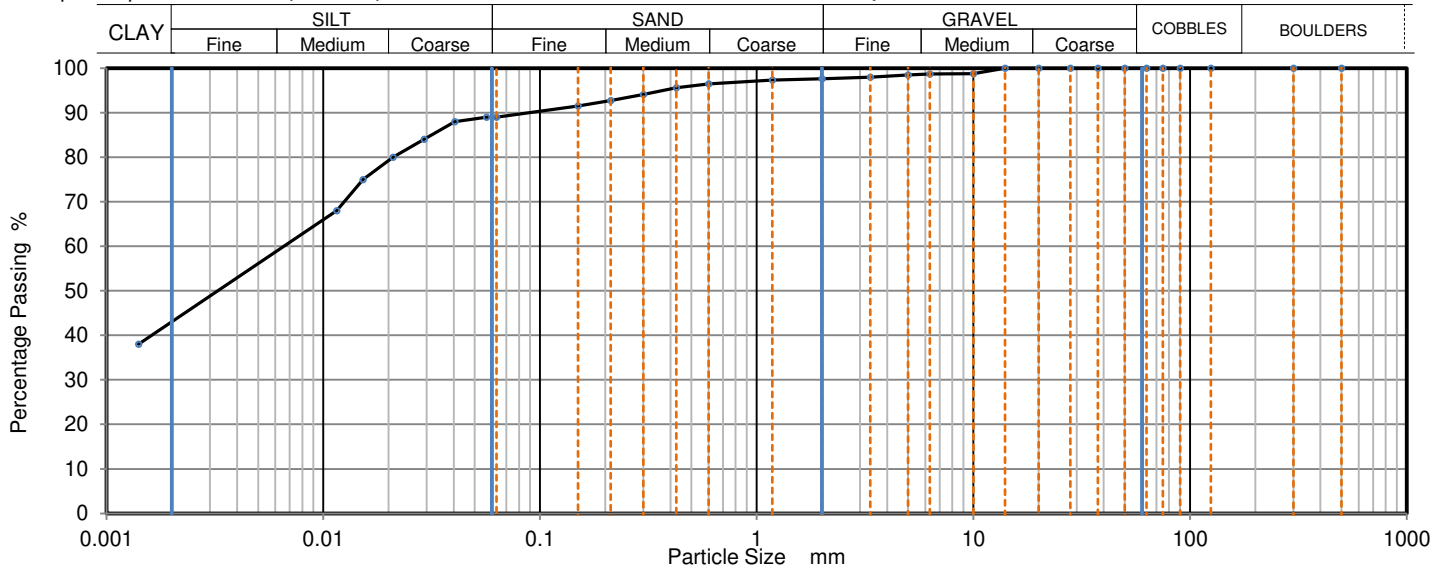
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550434
Hole No.: TP142
Sample Reference: Not Given
Sample Description: Brown slightly sandy very clayey SILT
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0567	89
300	100	0.0405	88
125	100	0.0292	84
90	100	0.0210	80
75	100	0.0152	75
63	100	0.0115	68
50	100	0.0014	38
37.5	100		
28	100		
20	100		
14	100		
10	99		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	97	Particle density (assumed) 2.65 Mg/m3	
0.6	97		
0.425	96		
0.3	94		
0.212	93		
0.15	92		
0.063	89		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	2.40
Sand	8.20
Silt	46.70
Clay	42.70

Grading Analysis		
D100	mm	14
D60	mm	0.00664
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

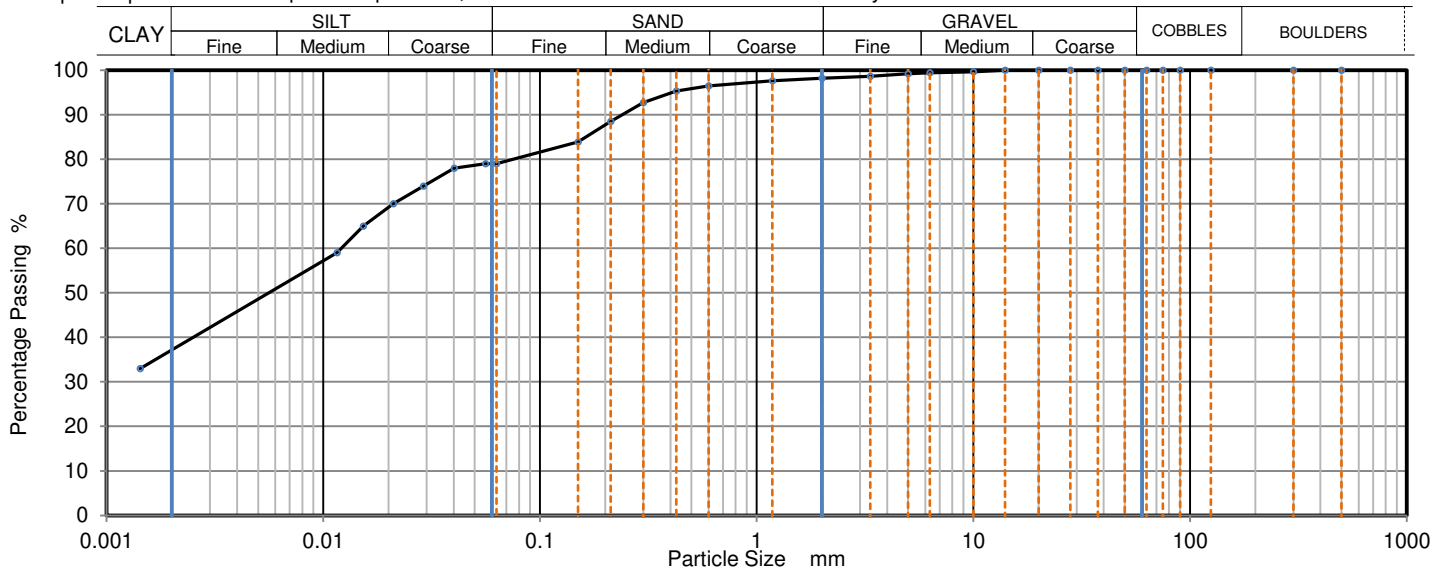
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550435
Hole No.: TP158
Sample Reference: Not Given
Sample Description: Brown slightly sandy very clayey SILT
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0561	79
300	100	0.0401	78
125	100	0.0289	74
90	100	0.0210	70
75	100	0.0153	65
63	100	0.0116	59
50	100	0.0014	33
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	99		
2	98		
1.18	98	Particle density (assumed) 2.65 Mg/m3	
0.6	97		
0.425	95		
0.3	93		
0.212	89		
0.15	84		
0.063	79		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	1.80
Sand	19.10
Silt	42.30
Clay	36.80

Grading Analysis		
D100	mm	14
D60	mm	0.0121
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

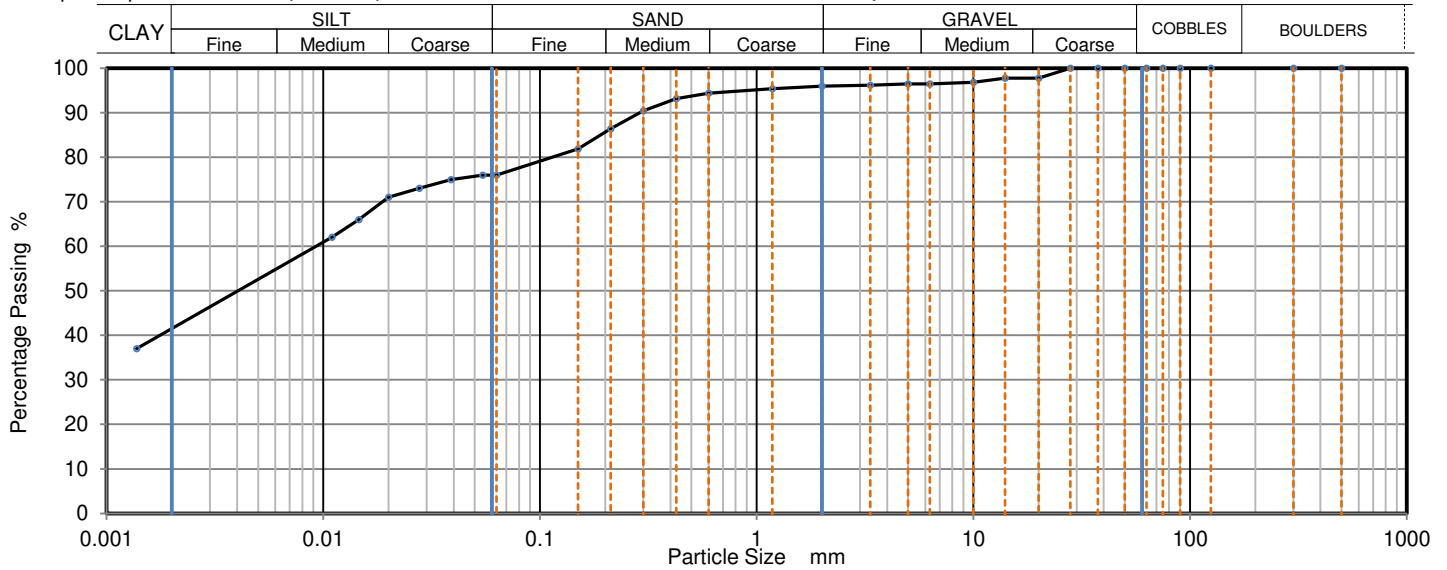
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550436
Hole No.: TP162
Sample Reference: Not Given
Sample Description: Brown slightly sandy very silty CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0543	76
300	100	0.0388	75
125	100	0.0277	73
90	100	0.0200	71
75	100	0.0146	66
63	100	0.0109	62
50	100	0.0075	55
37.5	100		
28	100		
20	98		
14	98		
10	97		
6.3	97		
5	97		
3.35	96		
2	96		
1.18	95	Particle density (assumed) 2.65 Mg/m3	
0.6	94		
0.425	93		
0.3	90		
0.212	86		
0.15	82		
0.063	76		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	4.00
Sand	19.80
Silt	34.90
Clay	41.30

Grading Analysis		
D100	mm	28
D60	mm	0.00922
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

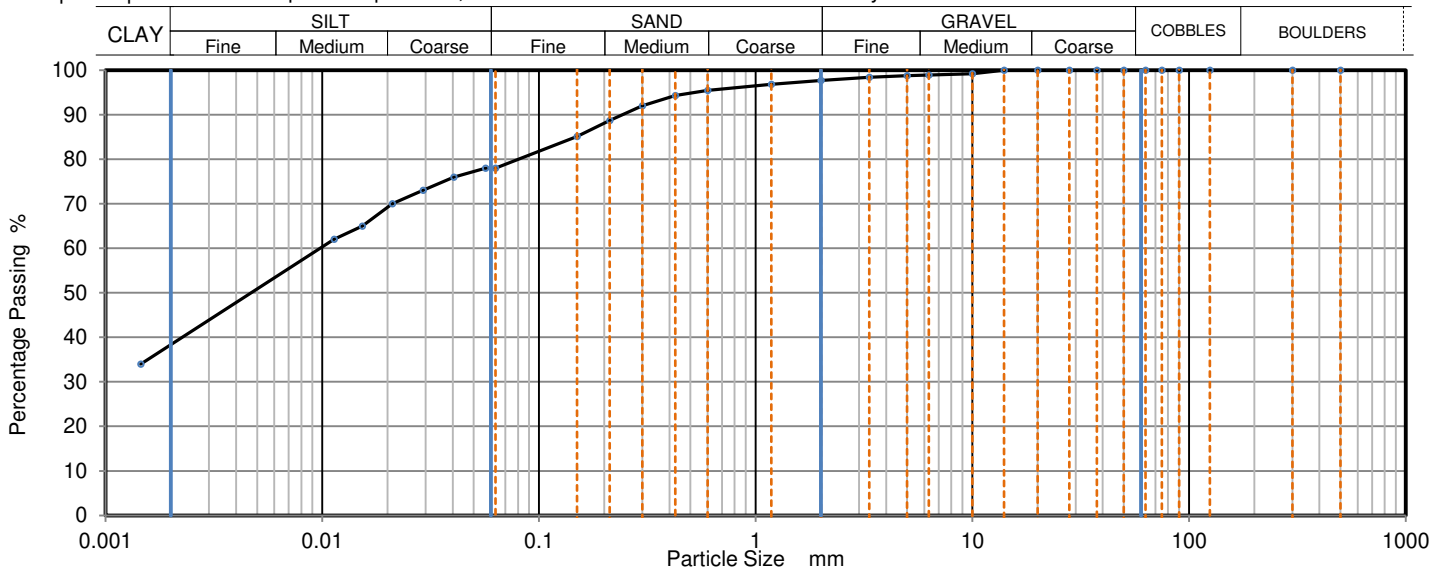
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550437
Hole No.: TP163
Sample Reference: Not Given
Sample Description: Brown very sandy SILT and CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0566	78
300	100	0.0405	76
125	100	0.0292	73
90	100	0.0210	70
75	100	0.0153	65
63	100	0.0113	62
50	100	0.0014	34
37.5	100		
28	100		
20	100		
14	100		
10	99		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	97	Particle density (assumed) 2.65 Mg/m3	
0.6	96		
0.425	94		
0.3	92		
0.212	89		
0.15	85		
0.063	78		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	2.30
Sand	19.90
Silt	39.20
Clay	38.60

Grading Analysis		
D100	mm	14
D60	mm	0.00968
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550438

Depth Top [m]: 3.00

Hole No.: TP163

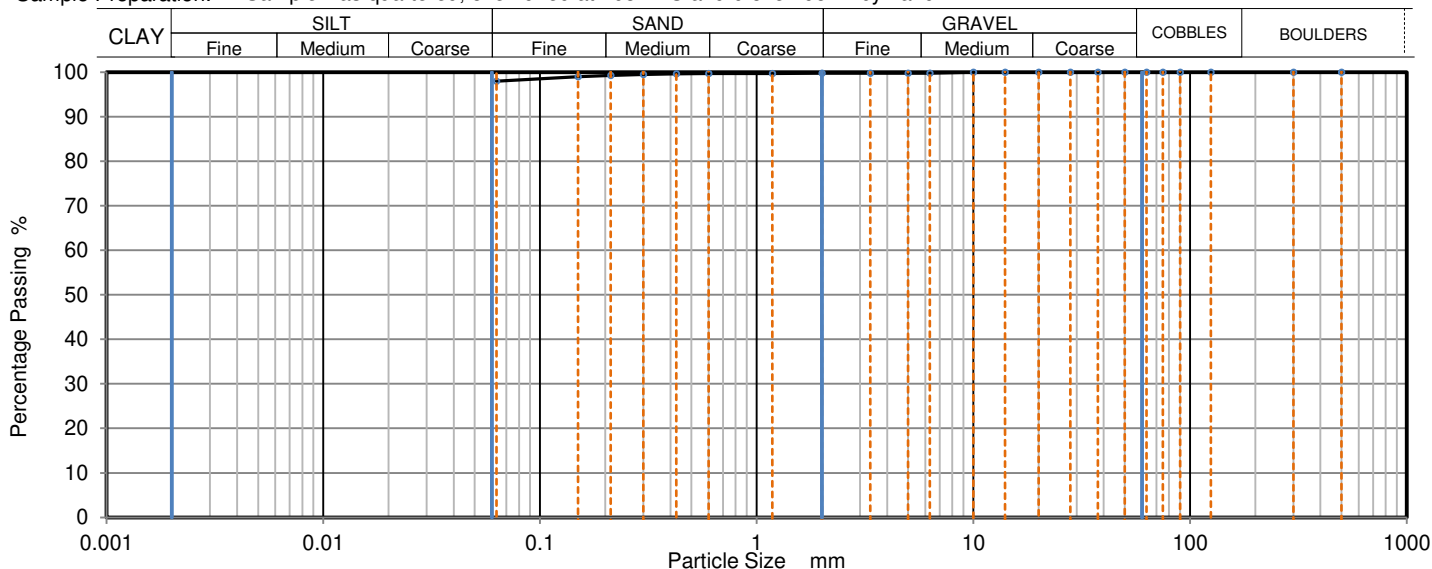
Depth Base [m]: Not Given

Sample Reference: Not Given

Sample Type: B

Sample Description: Brown CLAY

Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	100		
0.212	99		
0.15	99		
0.063	99		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.20
Sand	1.20
Fines <0.063mm	98.60

Grading Analysis		
D100	mm	10
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

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PL Technical Reviewer
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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

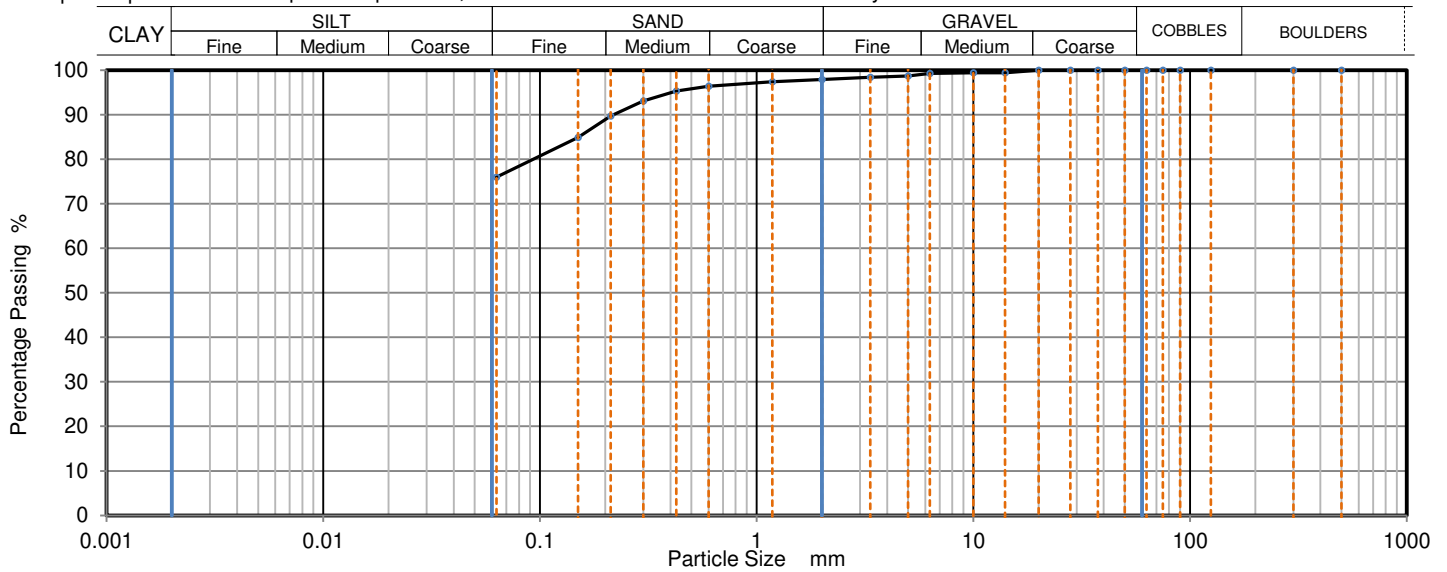
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550439
Hole No.: TP164
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	99		
10	99		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	97		
0.6	96		
0.425	95		
0.3	93		
0.212	90		
0.15	85		
0.063	77		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	2.10
Sand	21.10
Fines <0.063mm	76.80

Grading Analysis		
D100	mm	20
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

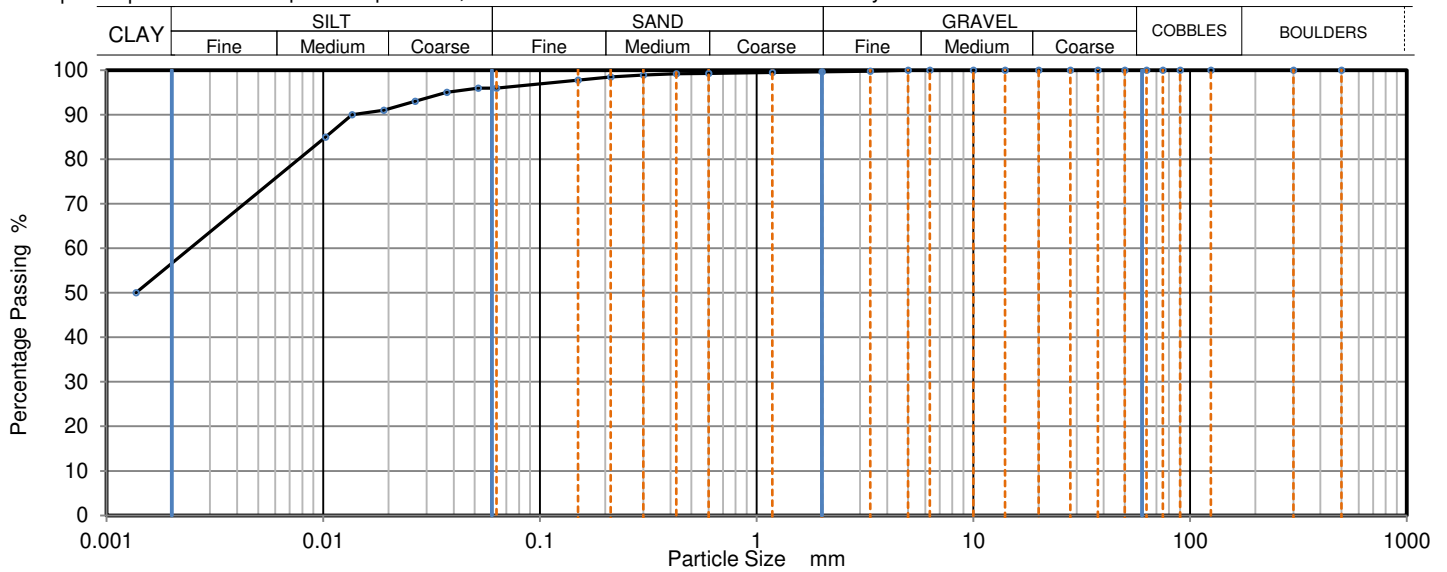
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550440
Hole No.: TP165
Sample Reference: Not Given
Sample Description: Brown very silty CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0519	96
300	100	0.0371	95
125	100	0.0266	93
90	100	0.0190	91
75	100	0.0136	90
63	100	0.0102	85
50	100	0.0075	50
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100	Particle density (assumed) 2.65 Mg/m3	
0.6	99		
0.425	99		
0.3	99		
0.212	99		
0.15	98		
0.063	96		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.40
Sand	3.30
Silt	39.90
Clay	56.40

Grading Analysis		
D100	mm	5
D60	mm	0.00246
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

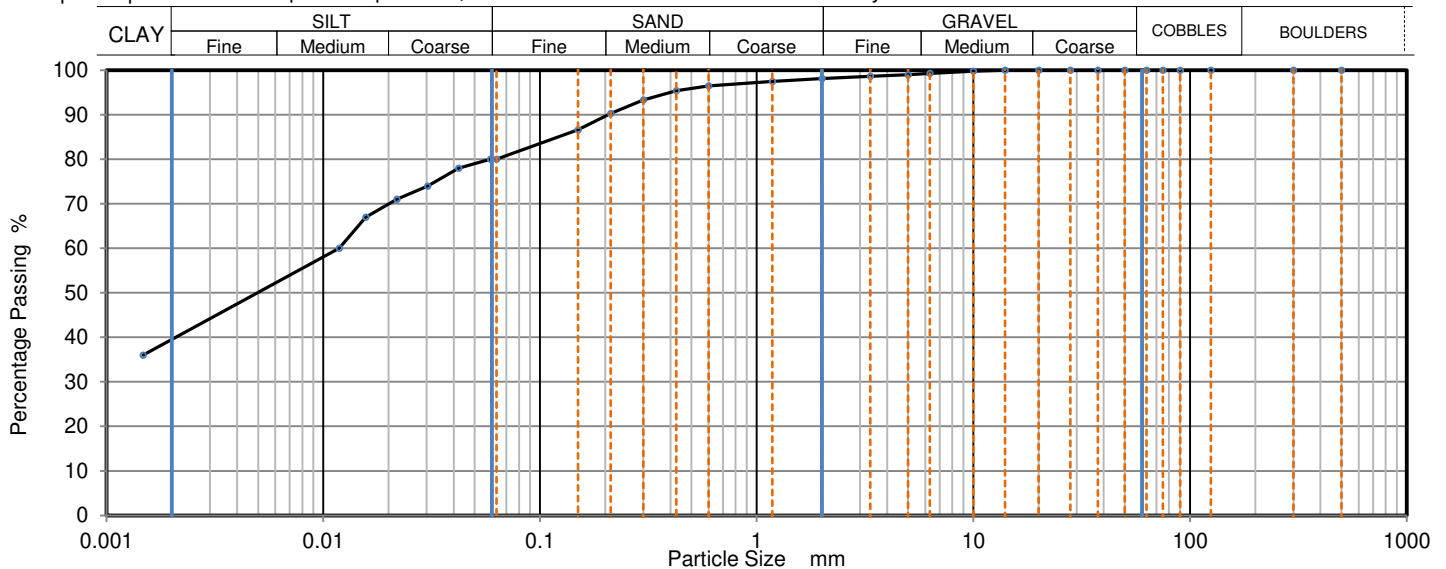
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550441
Hole No.: TP167
Sample Reference: Not Given
Sample Description: Brown sandy SILT and CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.

Depth Top [m]: 2.50
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0590	80
300	100	0.0421	78
125	100	0.0303	74
90	100	0.0218	71
75	100	0.0157	67
63	100	0.0118	60
50	100	0.0015	36
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	99		
2	98		
1.18	98	Particle density (assumed) 2.65 Mg/m3	
0.6	97		
0.425	95		
0.3	93		
0.212	90		
0.15	87		
0.063	80		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	1.90
Sand	18.60
Silt	39.60
Clay	39.90

Grading Analysis		
D100	mm	14
D60	mm	0.0113
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

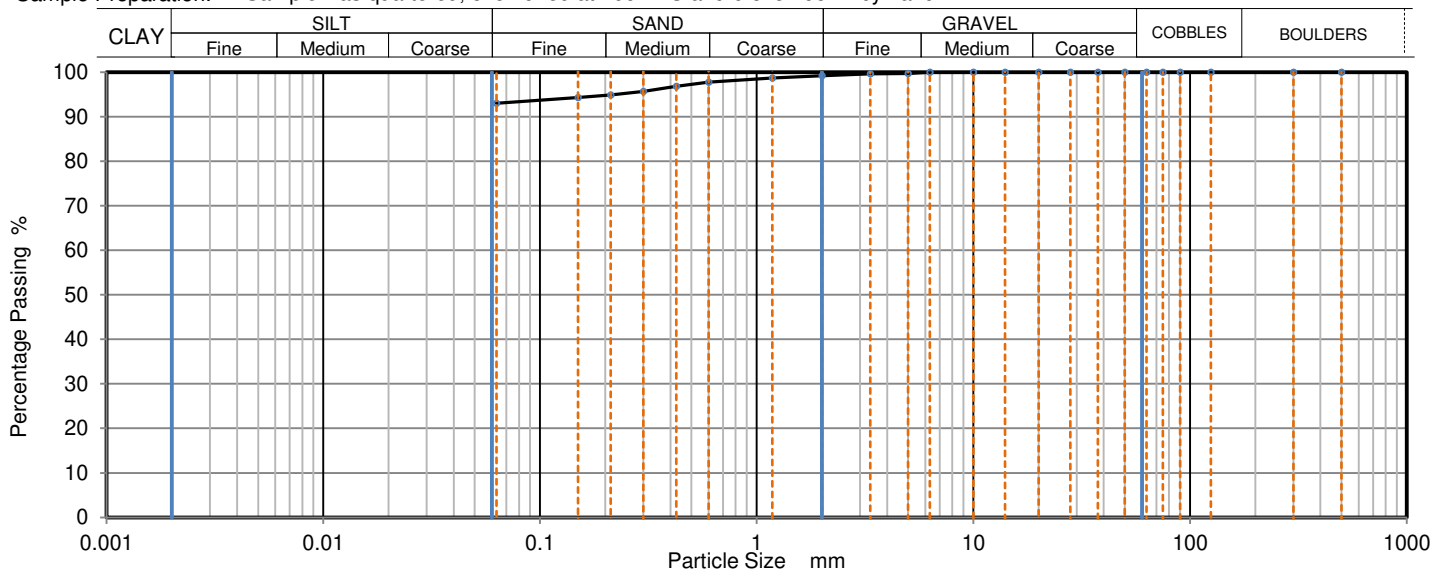
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550442
Hole No.: SA07
Sample Reference: Not Given
Sample Description: Brown slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.2 °C and broken down by hand.

Depth Top [m]: 1.30
Depth Base [m]: Not Given
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	99		
0.6	98		
0.425	97		
0.3	96		
0.212	95		
0.15	94		
0.063	94		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.80
Sand	5.70
Fines <0.063mm	93.50

Grading Analysis		
D100	mm	6.3
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

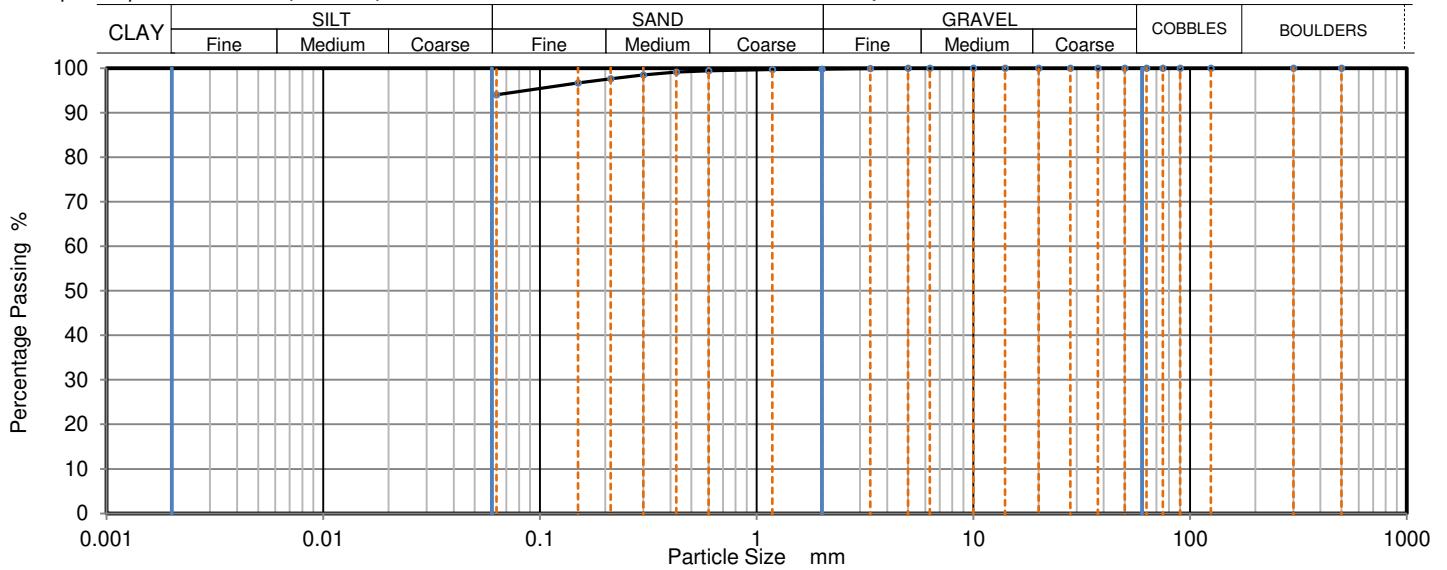
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550443
Hole No.: WS112
Sample Reference: Not Given
Sample Description: Brown slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.2 °C and broken down by hand.

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	99		
0.425	99		
0.3	99		
0.212	98		
0.15	97		
0.063	94		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.20
Sand	5.70
Fines <0.063mm	94.10

Grading Analysis		
D100	mm	5
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550444

Depth Top [m]: 2.00

Hole No.: WS114

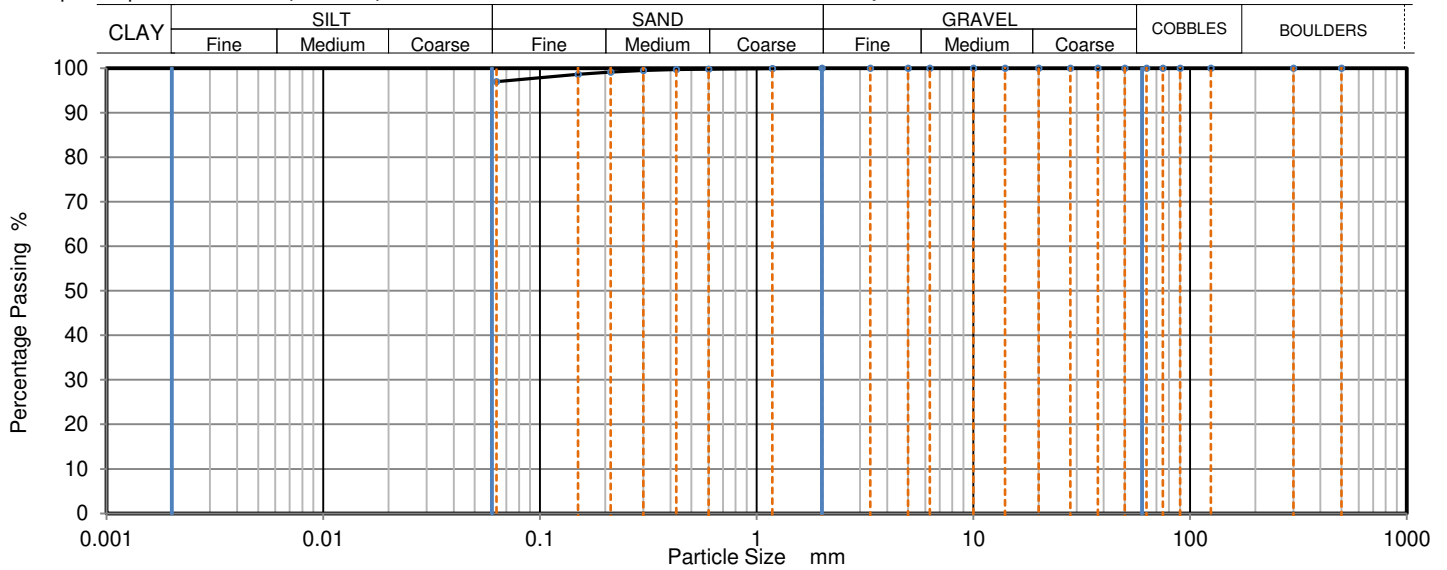
Depth Base [m]: 2.45

Sample Reference: Not Given

Sample Type: D

Sample Description: Brown CLAY

Sample Preparation: Sample was quartered, oven dried at 106.2 °C and broken down by hand.



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	100		
0.212	99		
0.15	99		
0.063	98		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.00
Sand	2.40
Fines <0.063mm	97.60

Grading Analysis		
D100	mm	2
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

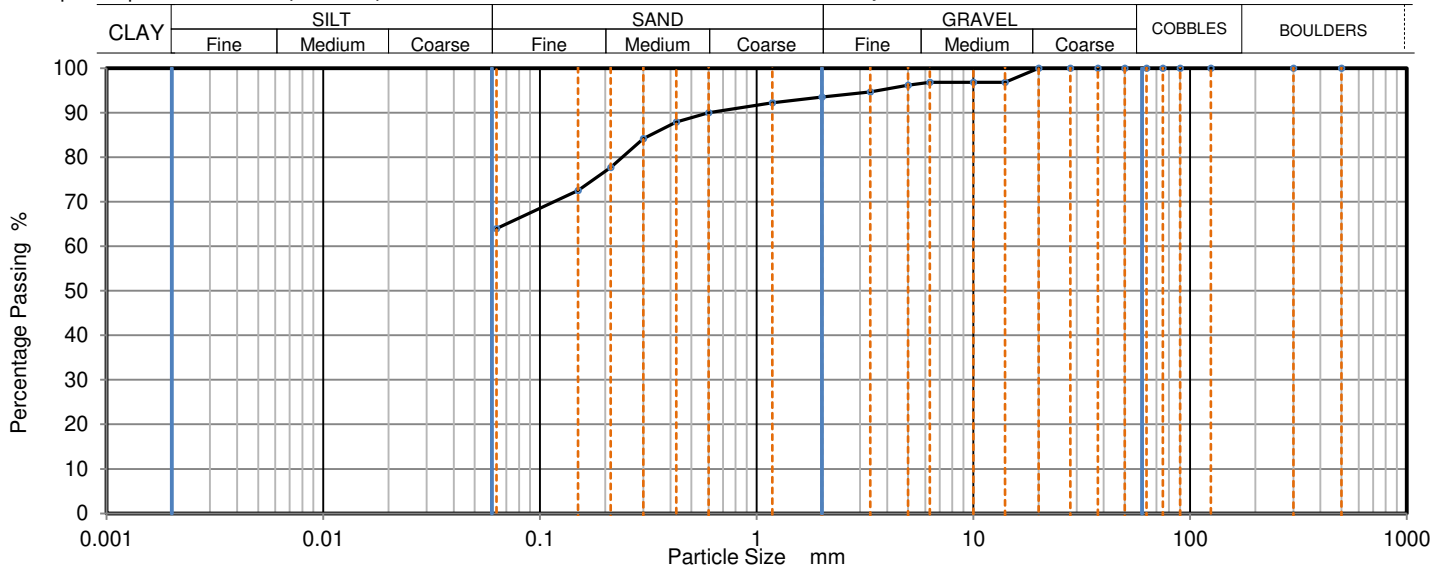
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550445
Hole No.: WS116
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.2 °C and broken down by hand.

Depth Top [m]: 3.00
Depth Base [m]: 3.45
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	97		
6.3	97		
5	96		
3.35	95		
2	94		
1.18	92		
0.6	90		
0.425	88		
0.3	84		
0.212	78		
0.15	73		
0.063	65		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	6.50
Sand	28.60
Fines <0.063mm	64.90

Grading Analysis		
D100	mm	20
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

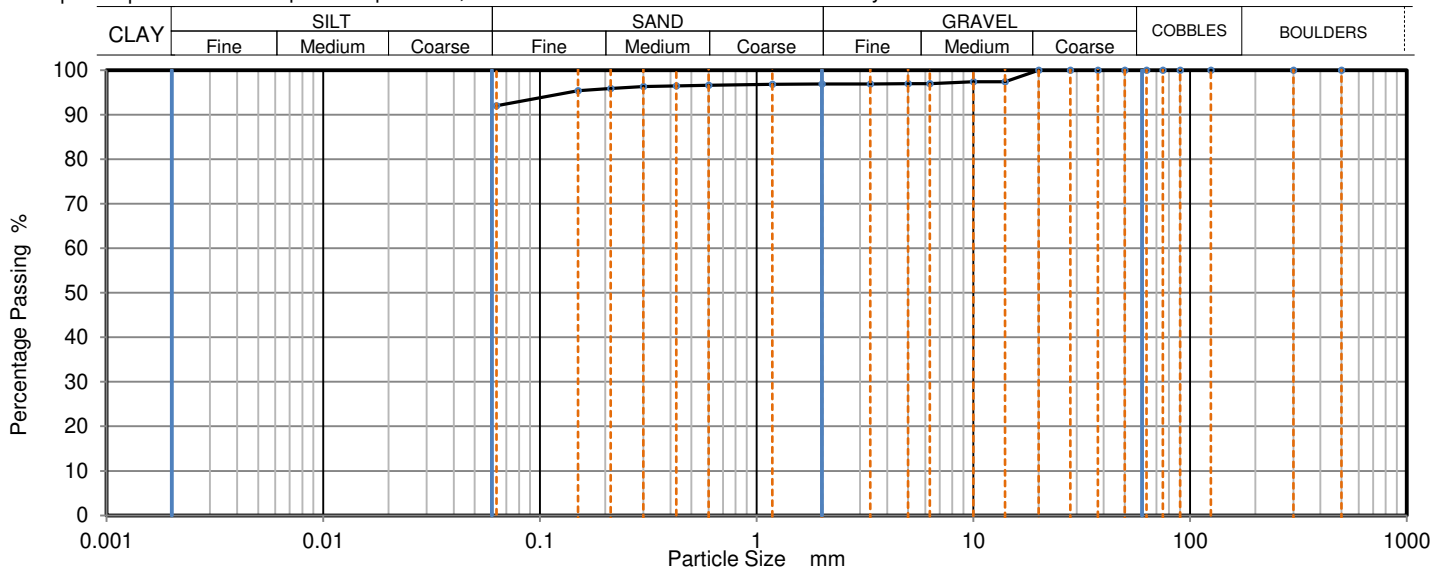
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550446
Hole No.: WS117
Sample Reference: Not Given
Sample Description: Dark brown slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.5 °C and broken down by hand.

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	97		
6.3	97		
5	97		
3.35	97		
2	97		
1.18	97		
0.6	97		
0.425	97		
0.3	96		
0.212	96		
0.15	95		
0.063	93		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	3.10
Sand	4.10
Fines <0.063mm	92.80

Grading Analysis		
D100	mm	20
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

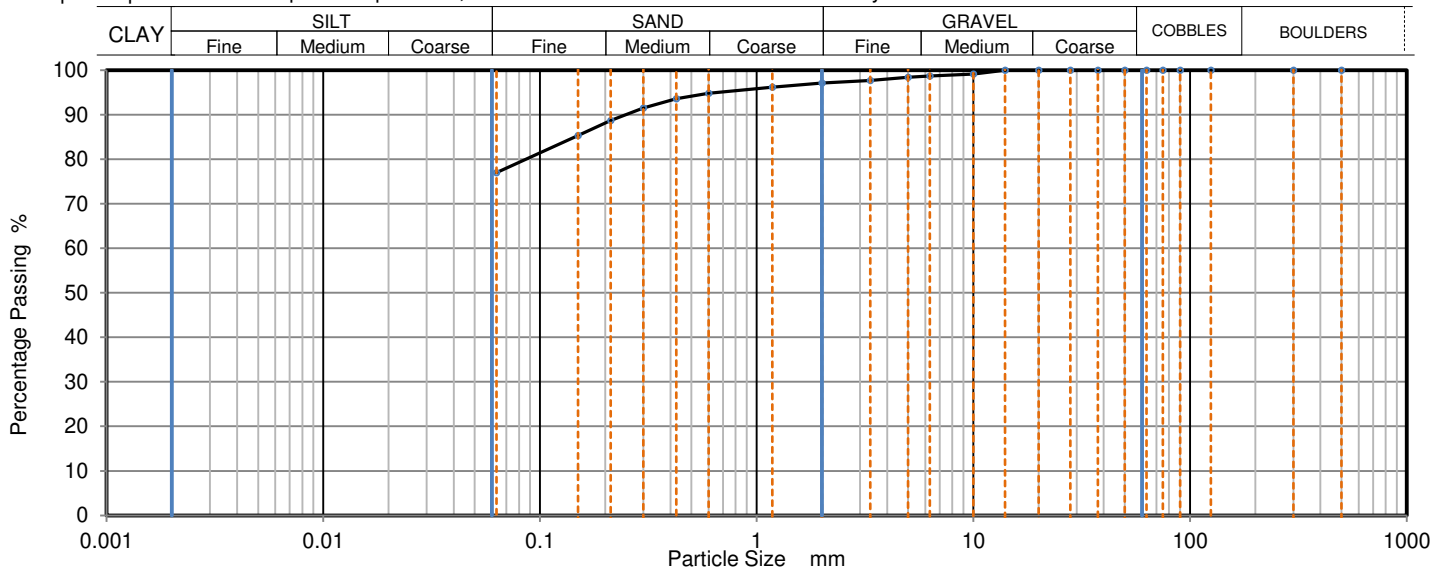
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550447
Hole No.: WS119
Sample Reference: Not Given
Sample Description: Dark brown slightly gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.7 °C and broken down by hand.

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	99		
6.3	99		
5	98		
3.35	98		
2	97		
1.18	96		
0.6	95		
0.425	94		
0.3	92		
0.212	89		
0.15	85		
0.063	78		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	2.90
Sand	19.30
Fines <0.063mm	77.90

Grading Analysis		
D100	mm	14
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

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PL Technical Reviewer
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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 15/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

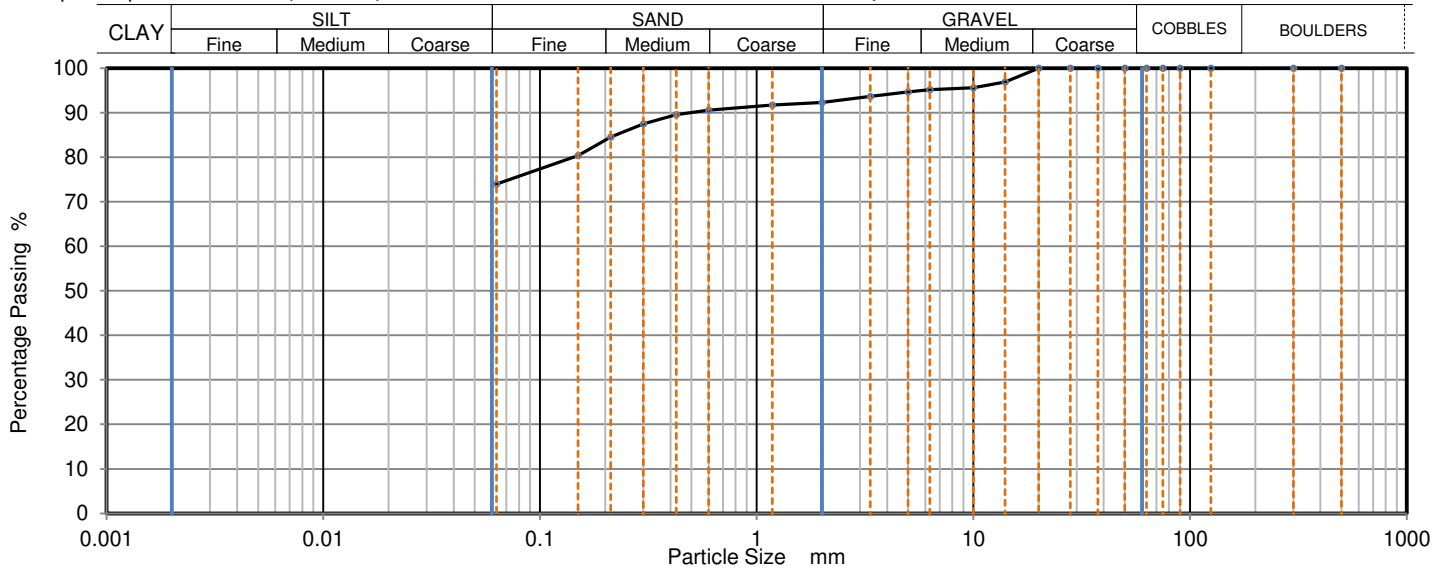
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550448
Hole No.: WS121
Sample Reference: Not Given
Sample Description: Brown slightly gravelly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.2 °C and broken down by hand.

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	96		
6.3	95		
5	95		
3.35	94		
2	92		
1.18	92		
0.6	91		
0.425	90		
0.3	88		
0.212	85		
0.15	80		
0.063	74		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	7.70
Sand	18.10
Fines <0.063mm	74.20

Grading Analysis		
D100	mm	20
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 18/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

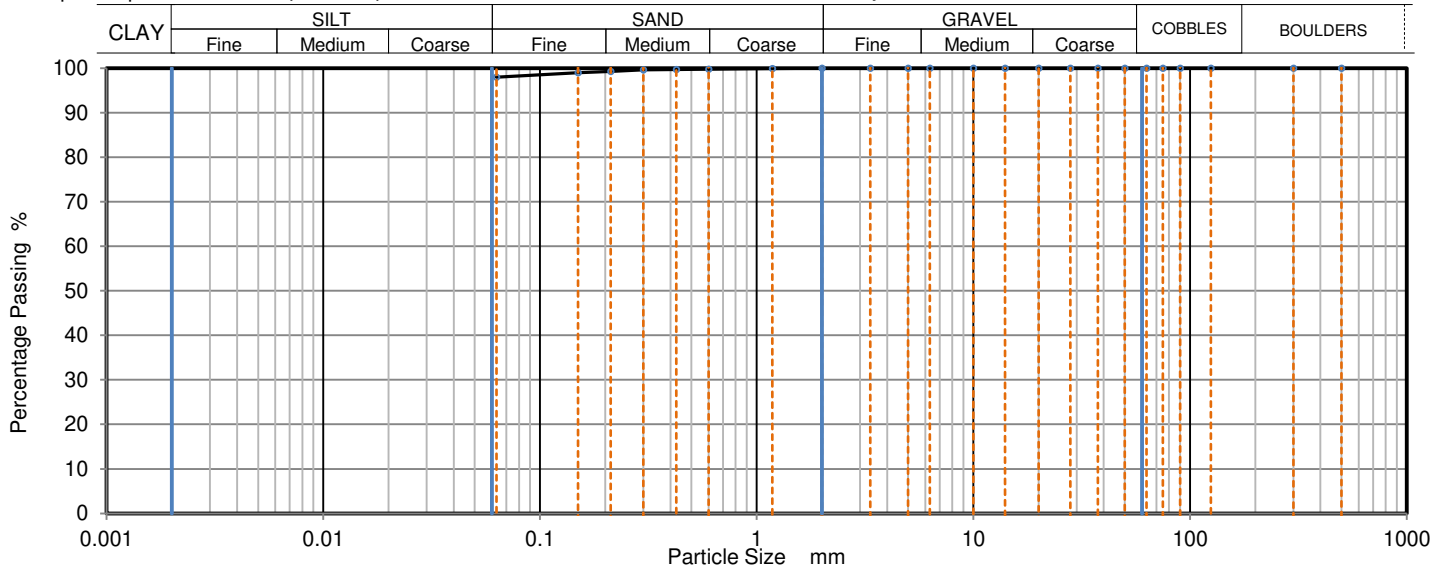
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550449
Hole No.: CP08
Sample Reference: Not Given
Sample Description: Brown slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.3 °C and broken down by hand.

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	100		
0.212	99		
0.15	99		
0.063	98		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.00
Sand	1.90
Fines <0.063mm	98.10

Grading Analysis		
D100	mm	3.35
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

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PL Technical Reviewer
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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

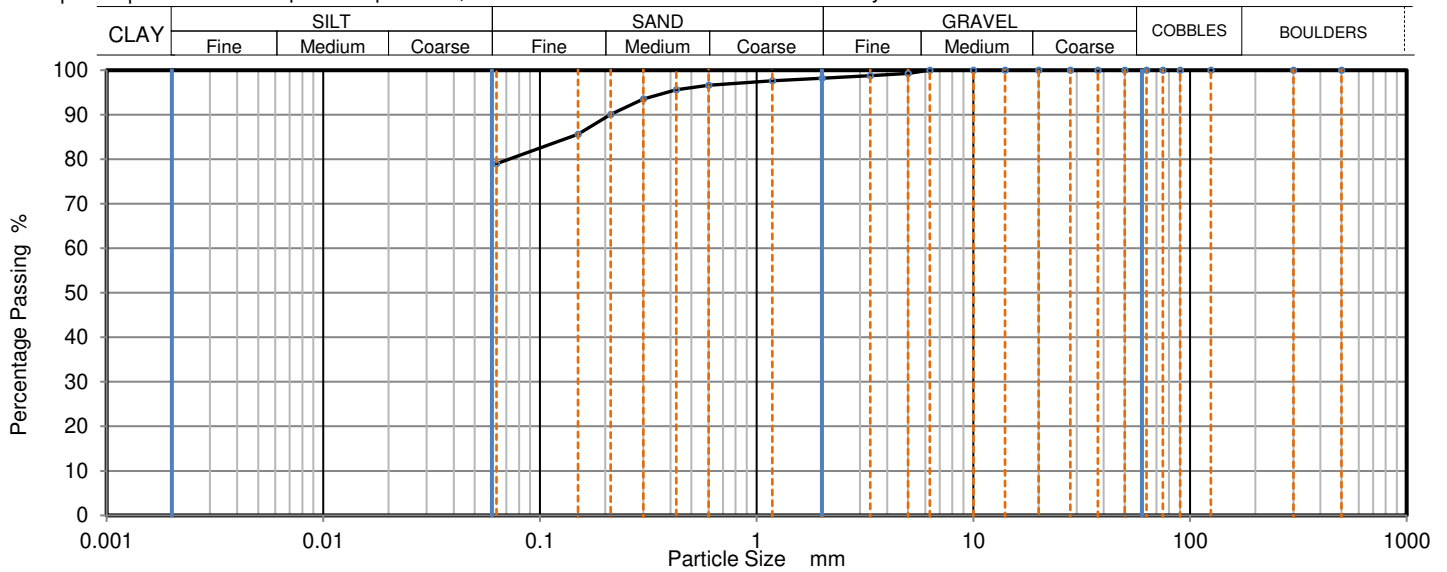
Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550450
Hole No.: CP09
Sample Reference: Not Given
Sample Description: Brown sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.3 °C and broken down by hand.
Depth Top [m]: 0.60
Depth Base [m]: 0.80
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	99		
2	98		
1.18	98		
0.6	97		
0.425	96		
0.3	94		
0.212	90		
0.15	86		
0.063	80		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	1.80
Sand	18.60
Fines <0.063mm	79.60

Grading Analysis		
D100	mm	6.3
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Tested in Accordance with: BS 1377-2: 1990

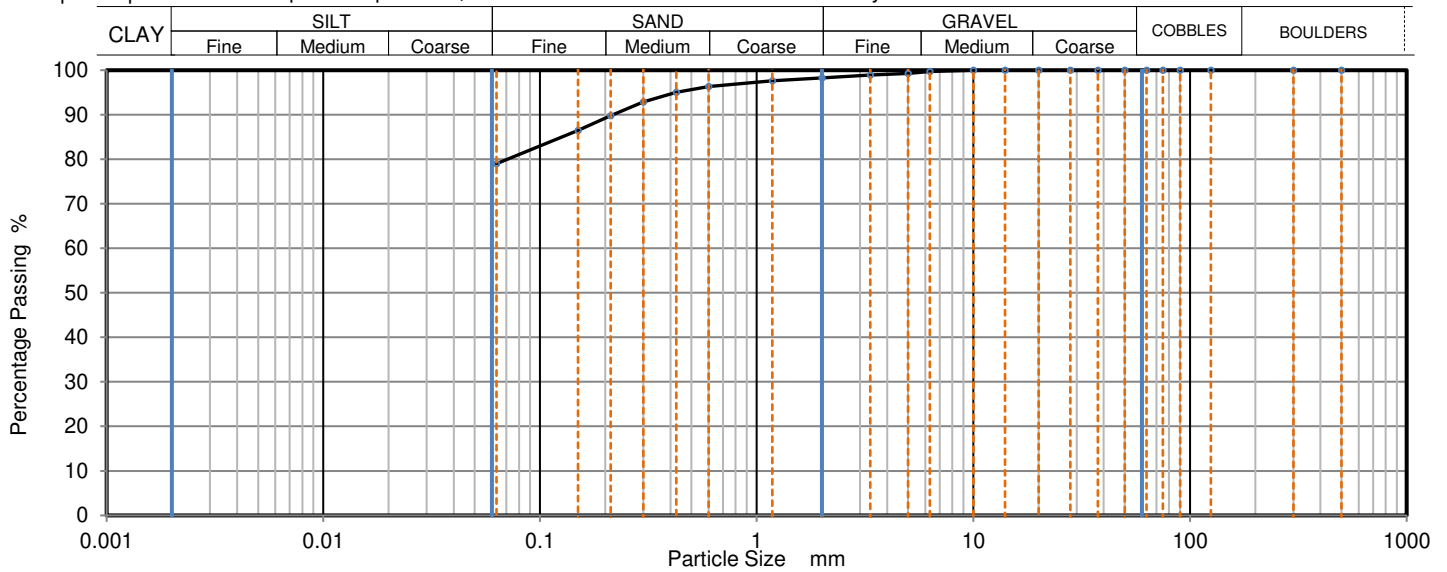
Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550534
Hole No.: TP166
Sample Reference: Not Given
Sample Description: Dark grey sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.
Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	99		
2	98		
1.18	98		
0.6	96		
0.425	95		
0.3	93		
0.212	90		
0.15	87		
0.063	79		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	1.70
Sand	19.30
Fines <0.063mm	79.00

Grading Analysis		
D100	mm	10
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

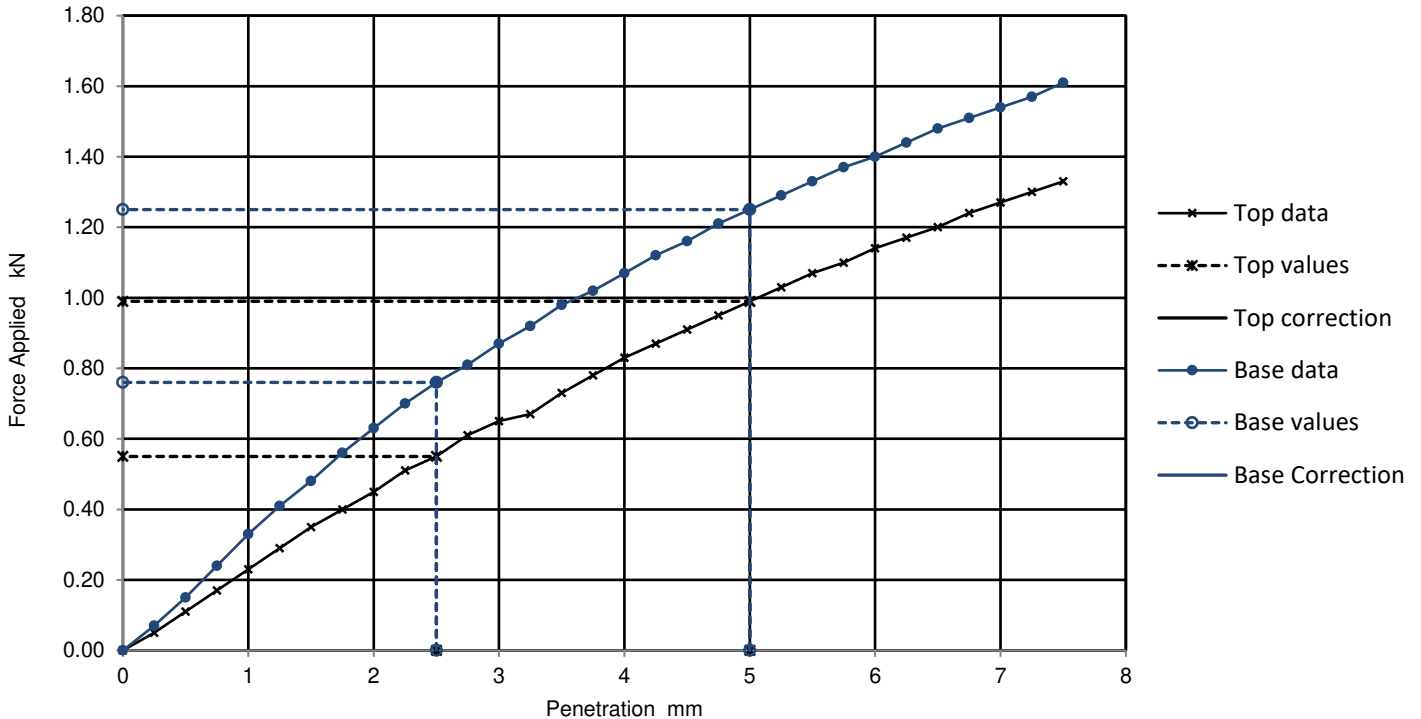
Laboratory Reference: 1550425
Hole No.: SA06
Sample Reference: Not Given
Sample Description: Brown sandy very clayey SILT

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.16 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.84 Mg/m ³		4.8 kPa
	Moisture content 17 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	4.2	5.0	5.0	
No	5.8	6.3	6.3	

Moisture Content %
17
17

Remarks:

Test/ Specimen specific remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

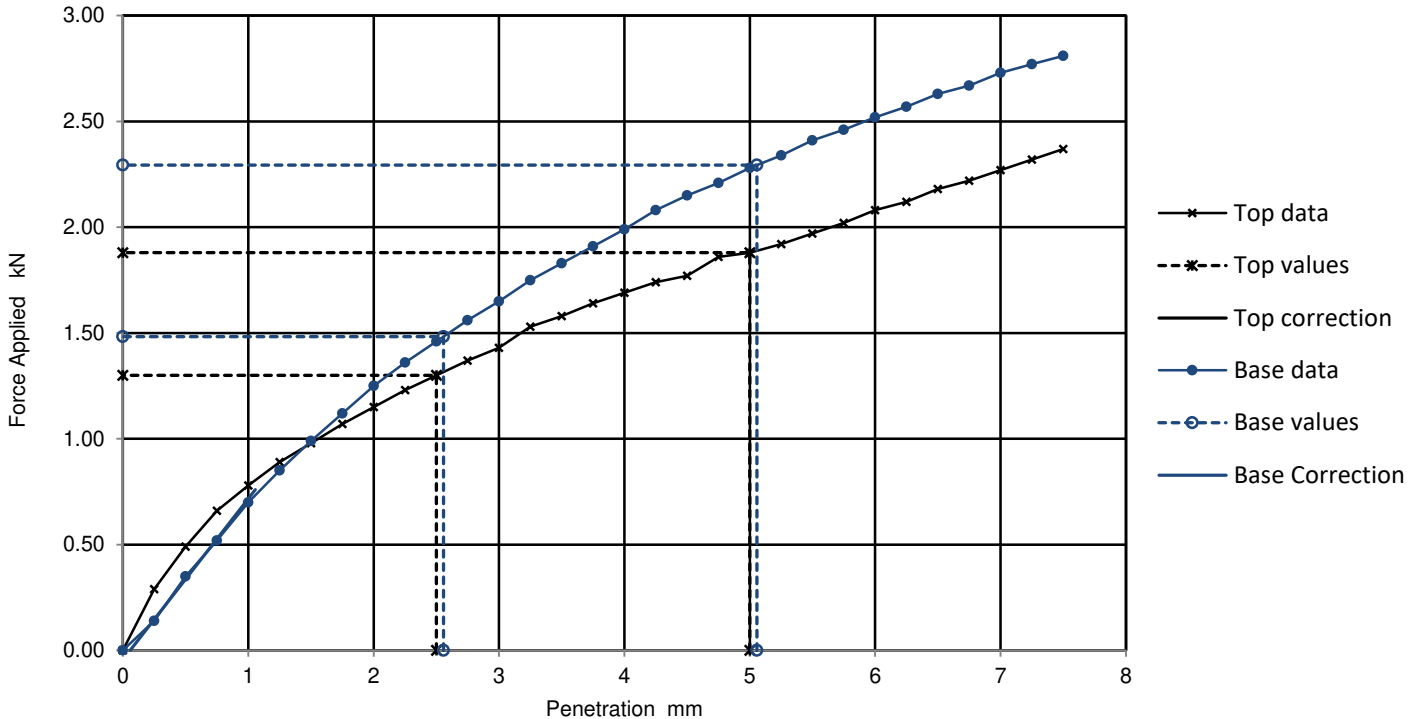
Laboratory Reference: 1550426
Hole No.: SA07
Sample Reference: Not Given
Sample Description: Brown slightly sandy very silty CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.04 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.71 Mg/m ³		4.8 kPa
	Moisture content 20 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	9.8	9.4	9.8	11.0
Yes	11.0	11.0	11.0	

Moisture Content %
19
19

Remarks:

Test/ Specimen specific remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

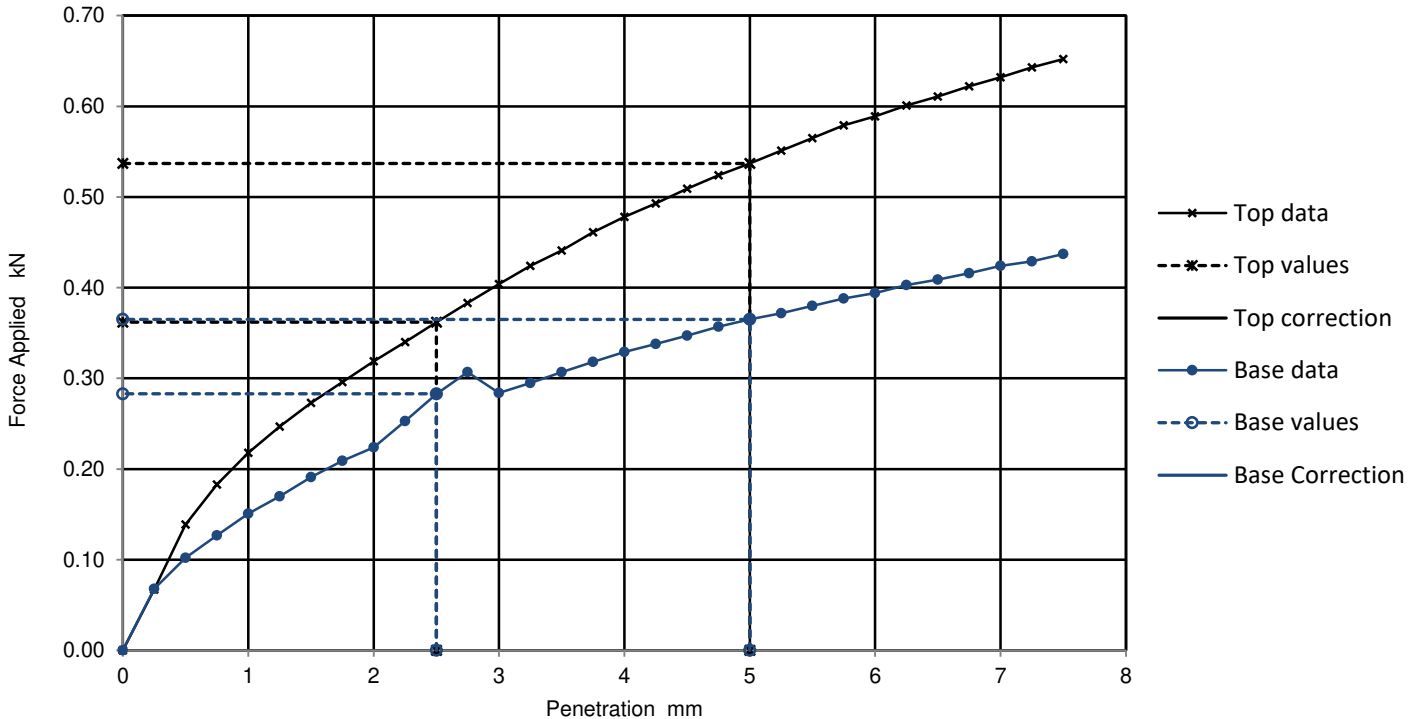
Laboratory Reference: 1550427
Hole No.: SA08A
Sample Reference: Not Given
Sample Description: Brown slightly sandy very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 1.95 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.50 Mg/m ³		4.8 kPa
	Moisture content 30 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	2.7	2.7	2.7	
No	2.1	1.8	2.1	

Moisture Content %
29
29

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
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Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

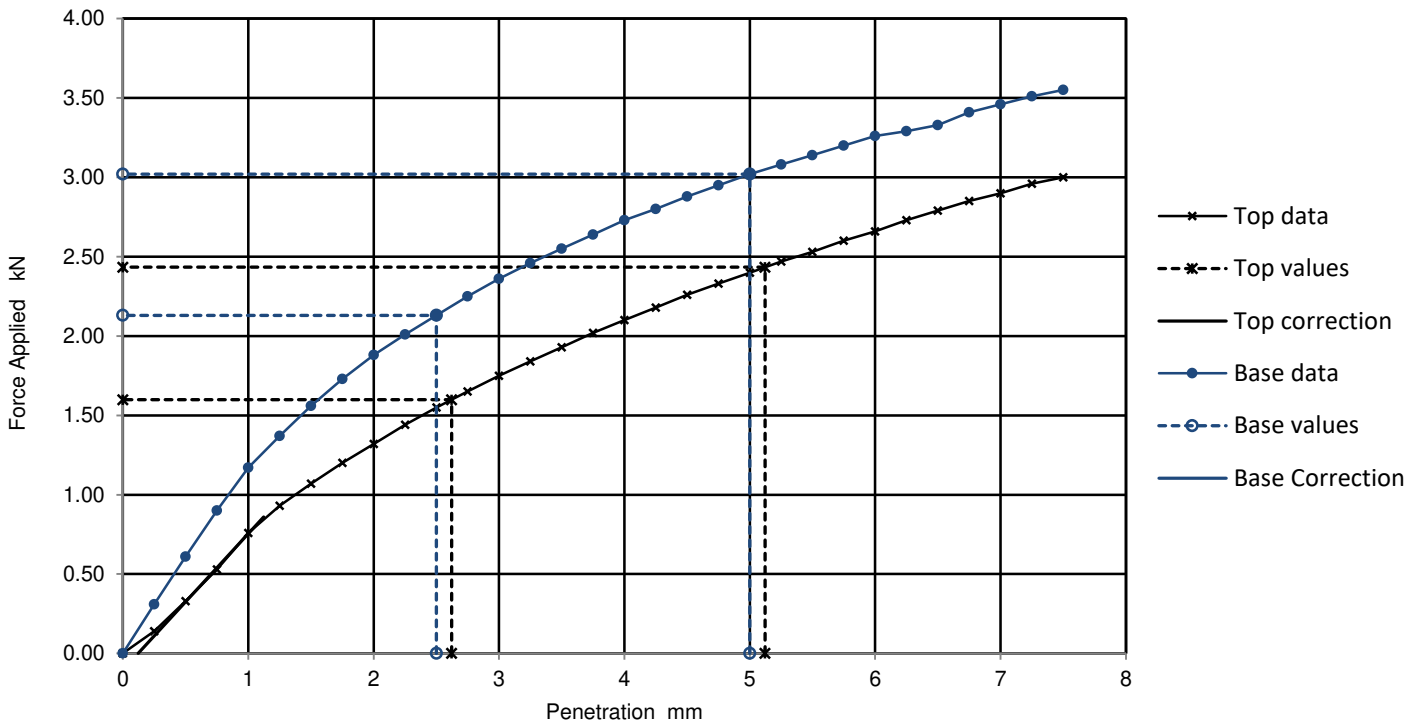
Laboratory Reference: 1550428
Hole No.: SA09
Sample Reference: Not Given
Sample Description: Brown sandy very silty CLAY

Depth Top [m]: 0.80
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.17 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.88 Mg/m ³		4.8 kPa
	Moisture content 15 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
Yes	12.0	12.0	12.0	
No	16.0	15.0	16.0	

Moisture Content %
16
15

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
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TEST CERTIFICATE

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

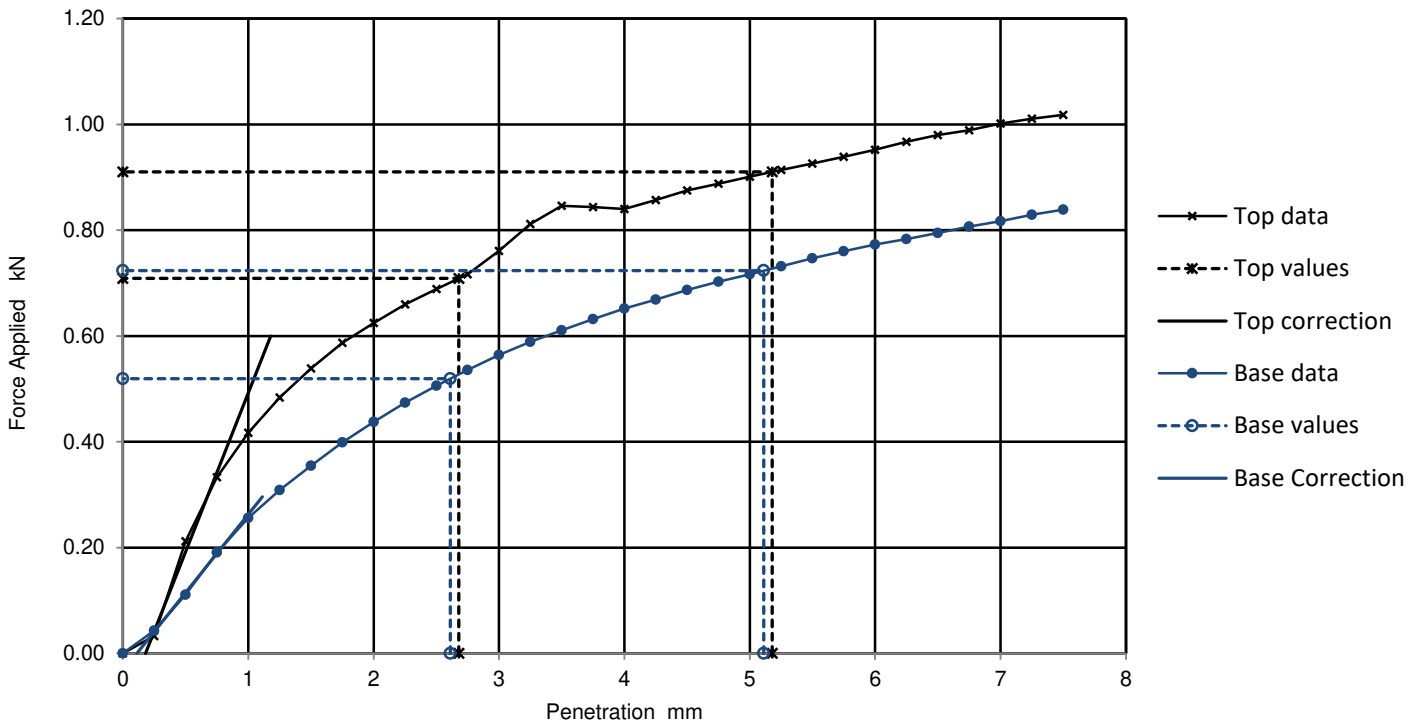
Laboratory Reference: 1550429
Hole No.: TP135
Sample Reference: Not Given
Sample Description: Brown very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 1.99 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.56 Mg/m ³		4.8 kPa
	Moisture content 28 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
Yes	5.4	4.6	5.4	
Yes	3.9	3.6	3.9	

Moisture Content %
27
27

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
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Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

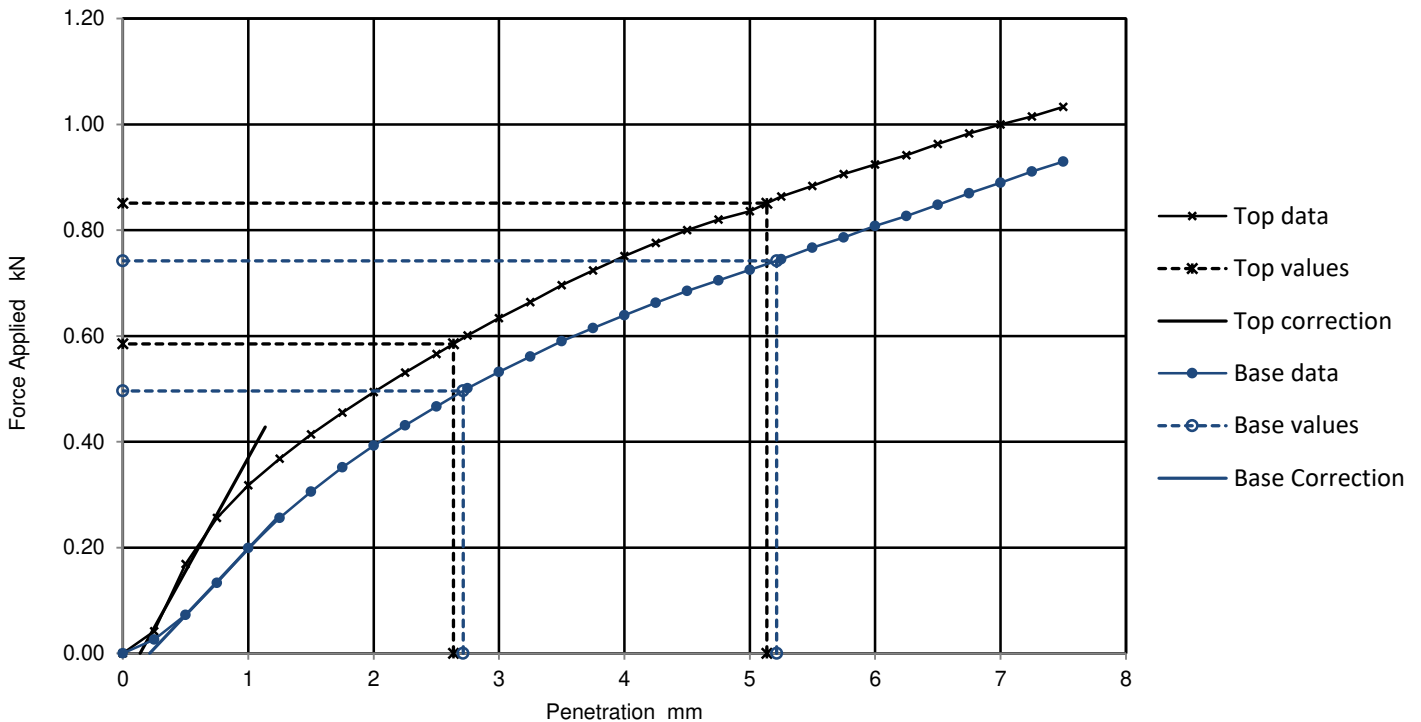
Laboratory Reference: 1550431
Hole No.: TP138
Sample Reference: Not Given
Sample Description: Brown sandy very clayey SILT

Depth Top [m]: 1.10
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.12 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.78 Mg/m ³		4.8 kPa
	Moisture content 19 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
Yes	4.4	4.3	4.4	4.1
Yes	3.8	3.7	3.8	

Moisture Content %
19
19

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
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Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

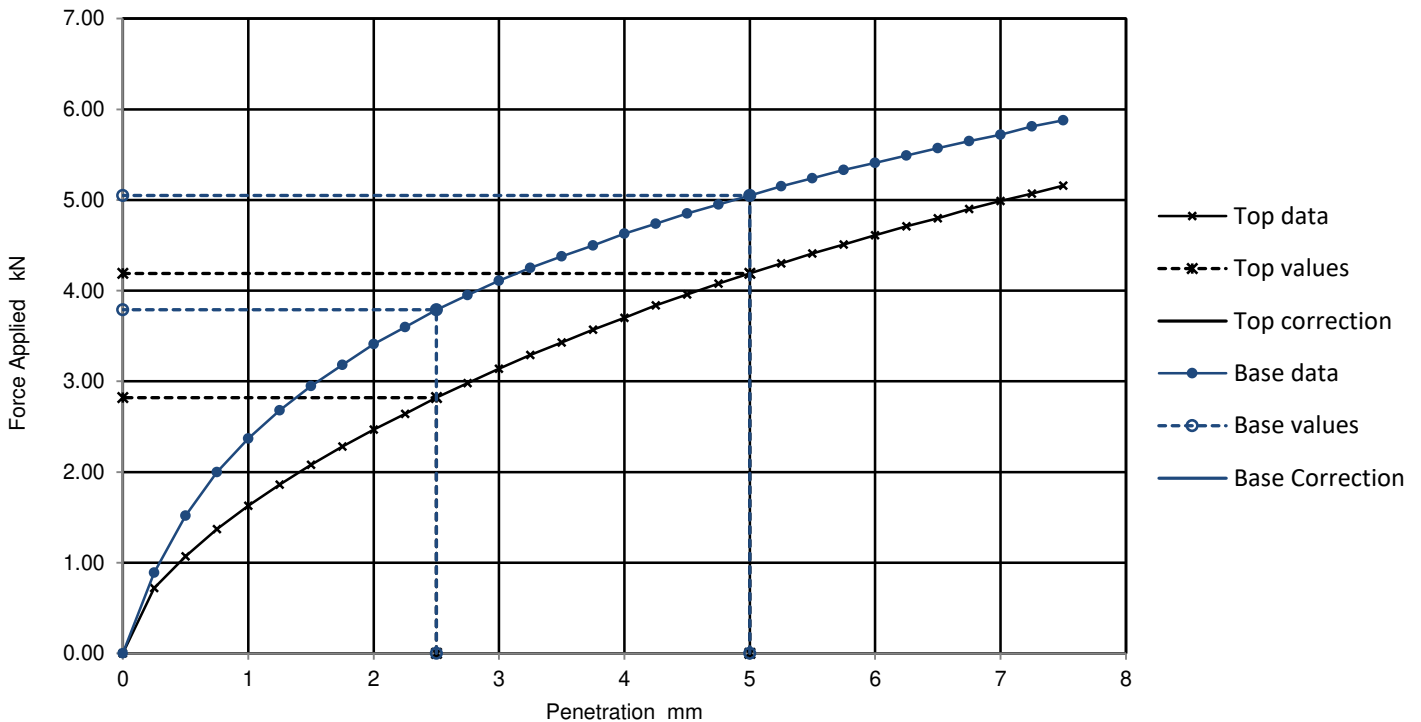
Laboratory Reference: 1550435
Hole No.: TP158
Sample Reference: Not Given
Sample Description: Brown slightly sandy very clayey SILT

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.21 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.93 Mg/m ³		4.8 kPa
	Moisture content 15 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	21.0	21.0	21.0	
No	29.0	25.0	29.0	

Moisture Content %
14
14

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

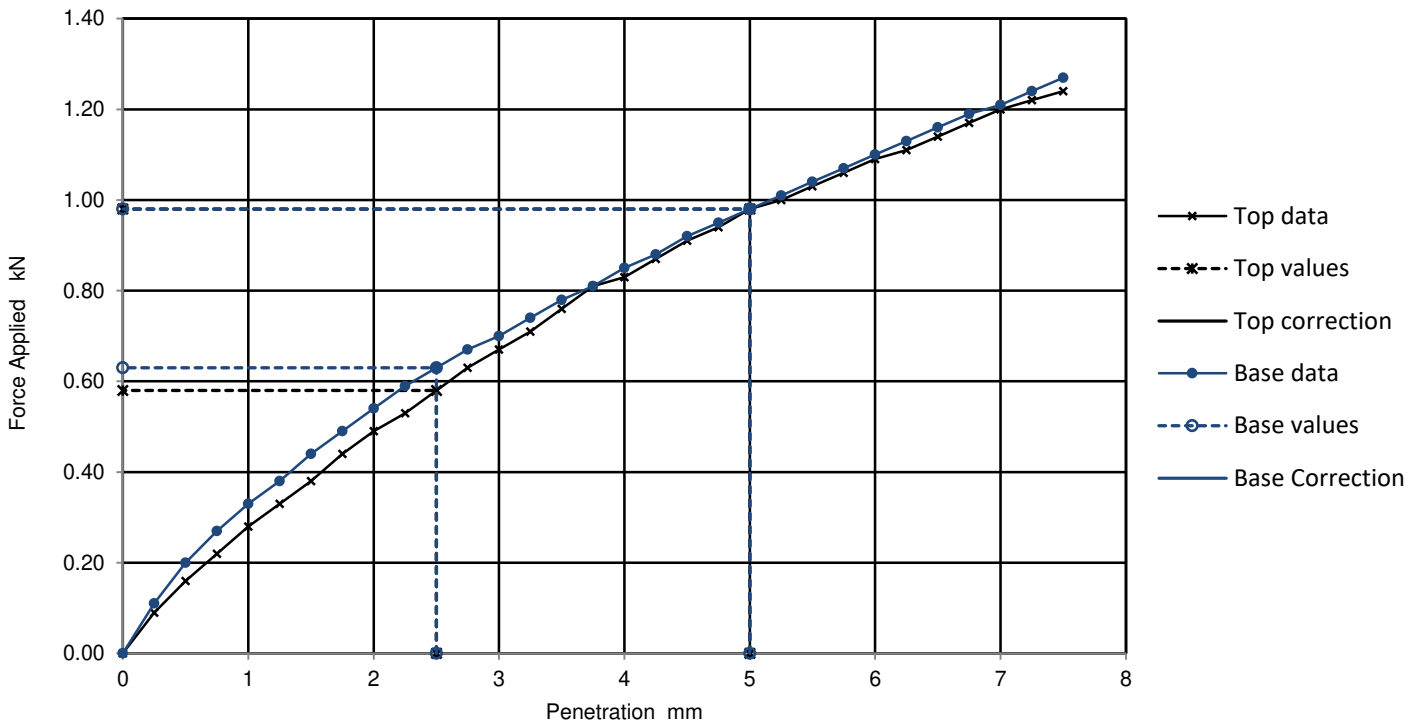
Laboratory Reference: 1550437
Hole No.: TP163
Sample Reference: Not Given
Sample Description: Brown very sandy SILT and CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.16 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.85 Mg/m ³		4.8 kPa
	Moisture content 17 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	4.4	4.9	4.9	4.9
No	4.8	4.9	4.9	

Moisture Content %
17
17

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

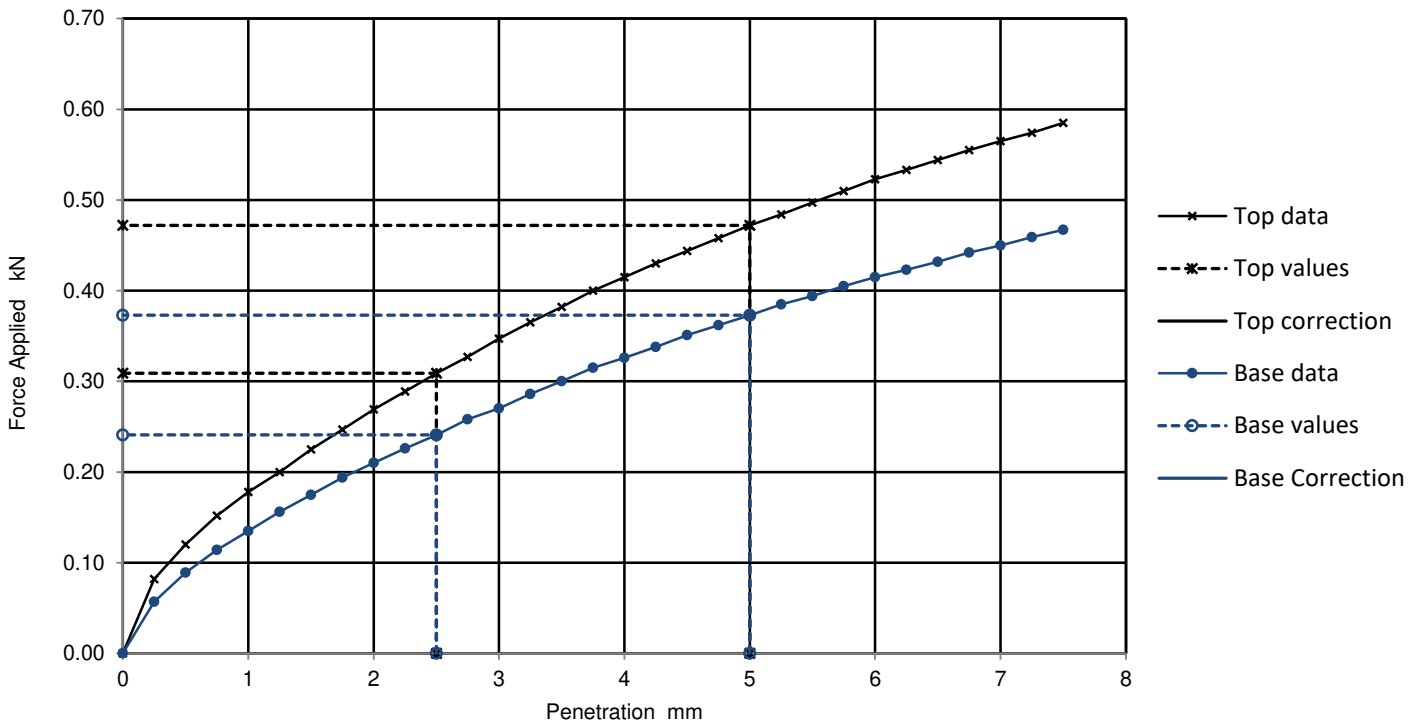
Laboratory Reference: 1550440
Hole No.: TP165
Sample Reference: Not Given
Sample Description: Brown very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 1.98 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.55 Mg/m ³		4.8 kPa
	Moisture content 28 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	2.3	2.4	2.4	
No	1.8	1.9	1.9	

Moisture Content %
26
26

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Determination of California Bearing Ratio

4041

Tested in Accordance with: BS 1377-4: 1990: Clause 7

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

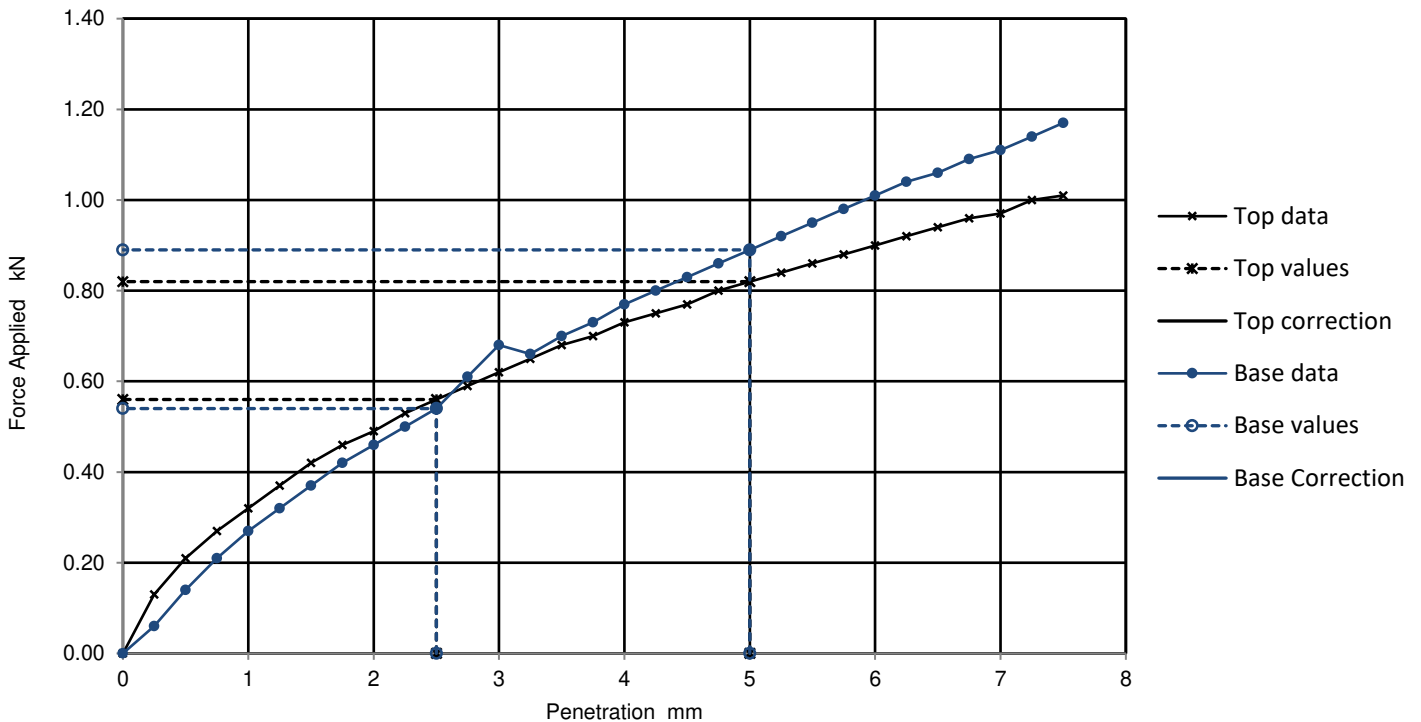
Laboratory Reference: 1550534
Hole No.: TP166
Sample Reference: Not Given
Sample Description: Dark grey sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B

Specimen Preparation:

Condition	Remoulded	Soaking details	Not soaked
Details	Recompacted with specified standard effort using 4.5kg rammer	Period of soaking	days
		Time to surface	days
		Amount of swell recorded	mm
Material retained on 20mm sieve removed	0 %	Dry density after soaking	Mg/m ³
Initial Specimen details	Bulk density 2.19 Mg/m ³	Surcharge applied	8 kg
	Dry density 1.89 Mg/m ³		4.8 kPa
	Moisture content 16 %		

Force v Penetration Plots



Results

TOP
BASE

Curve correction applied	CBR Values, %			
	2.5mm	5mm	Highest	Average
No	4.2	4.1	4.2	4.3
No	4.1	4.5	4.5	

Moisture Content %
16
16

Remarks:

Test/ Specimen specific remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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4041

TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

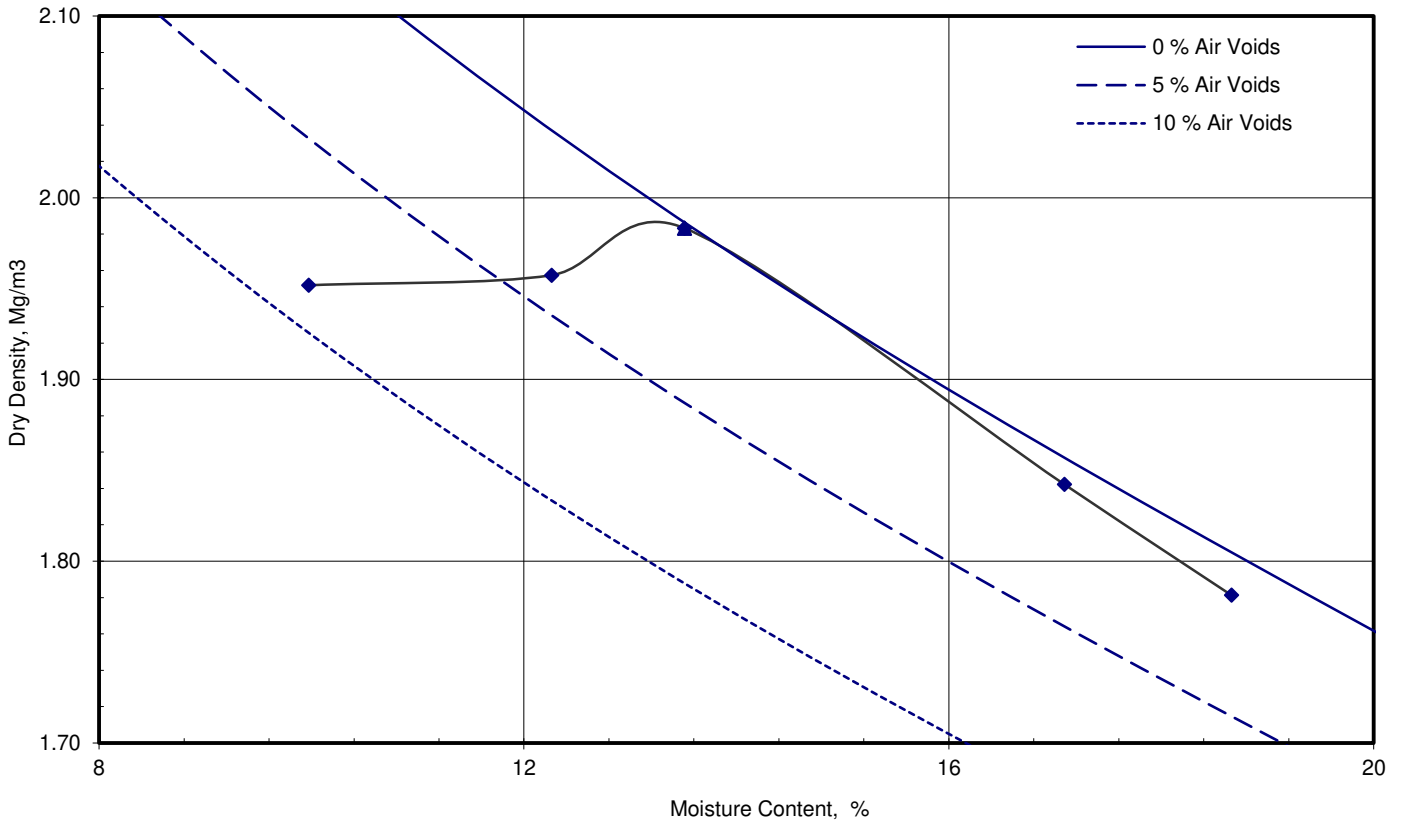
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550425
Hole No.: SA06
Sample Reference: Not Given
Sample Description: Brown sandy very clayey SILT

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.72
As received Moisture Content	%	18
Maximum Dry Density	Mg/m³	1.98
Optimum Moisture Content	%	14

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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4041

TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

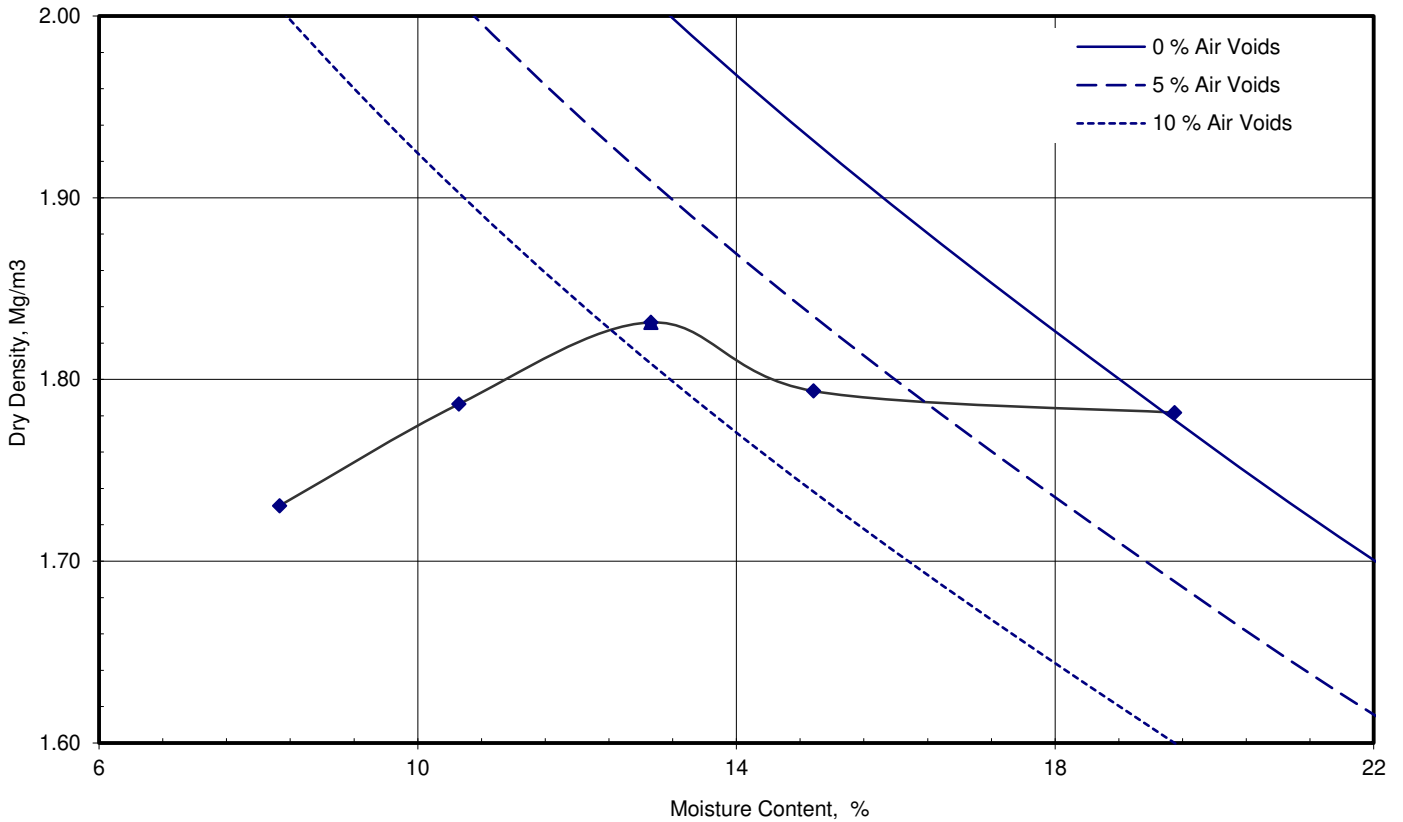
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550426
Hole No.: SA07
Sample Reference: Not Given
Sample Description: Brown slightly sandy very silty CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.72
As received Moisture Content	%	20
Maximum Dry Density	Mg/m³	1.83
Optimum Moisture Content	%	13

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

Signed:

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PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

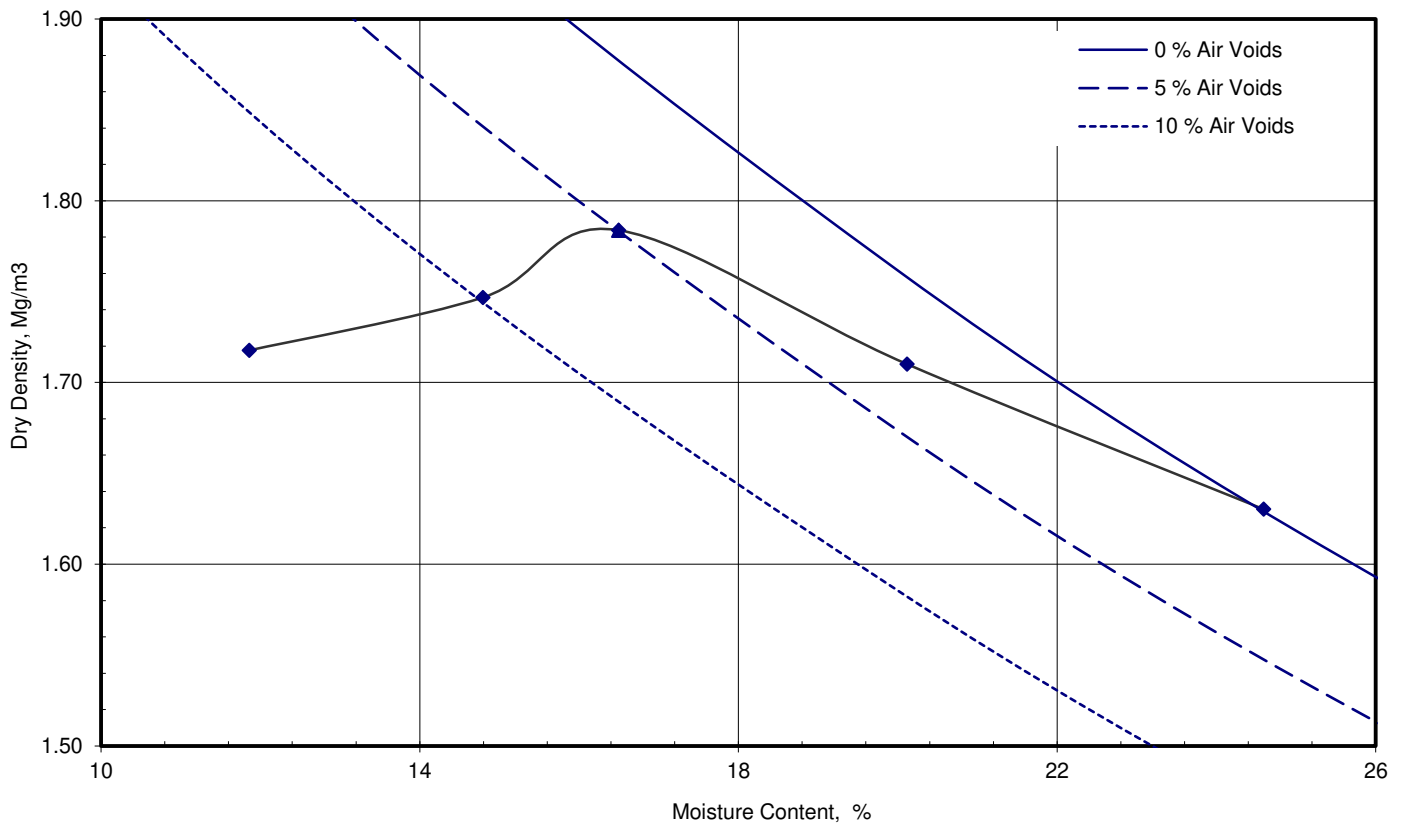
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550427
Hole No.: SA08A
Sample Reference: Not Given
Sample Description: Brown slightly sandy very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.72
As received Moisture Content	%	29
Maximum Dry Density	Mg/m³	1.78
Optimum Moisture Content	%	16

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

Signed:

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PL Technical Reviewer
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TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

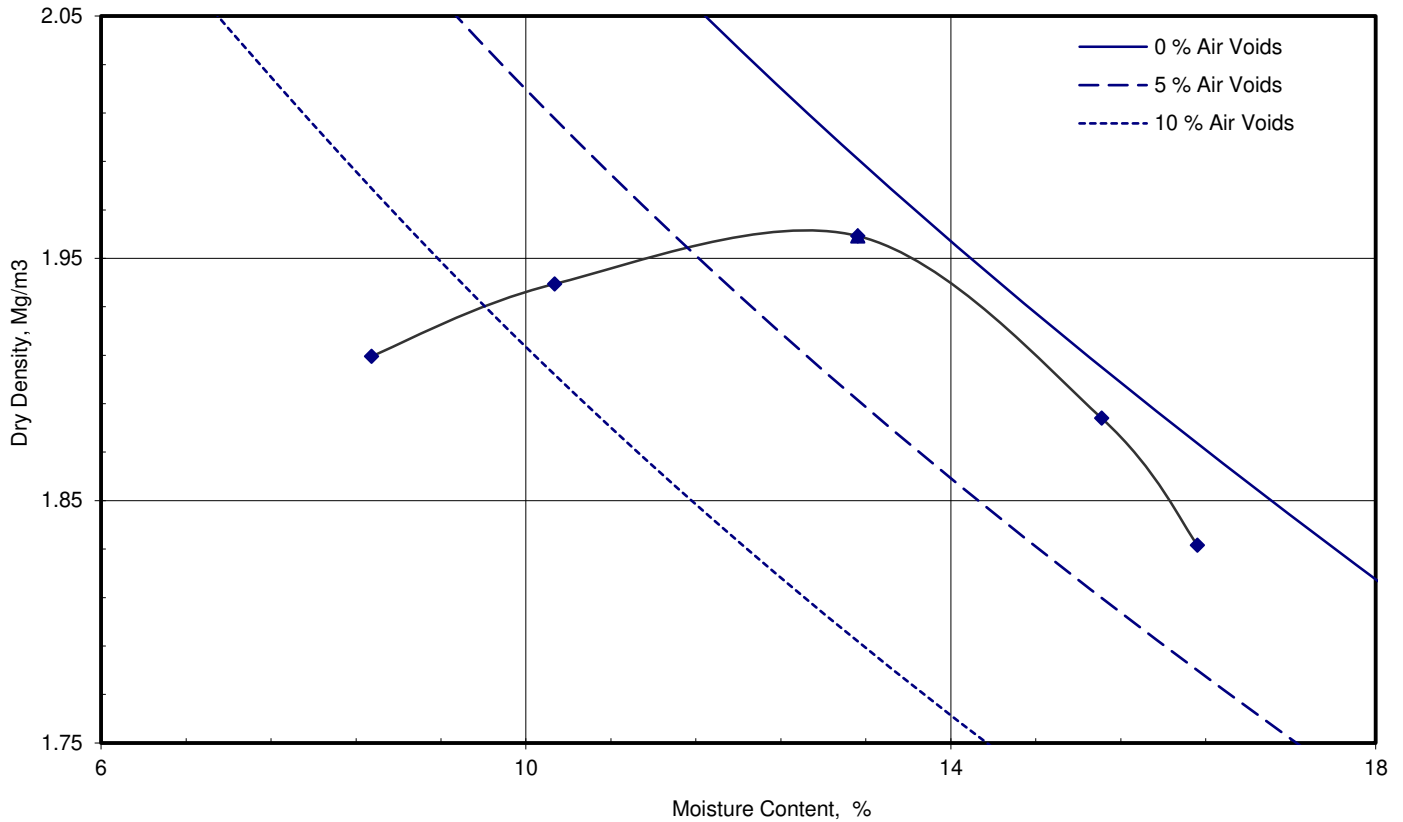
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550428
Hole No.: SA09
Sample Reference: Not Given
Sample Description: Brown sandy very silty CLAY

Depth Top [m]: 0.80
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.70
As received Moisture Content	%	15
Maximum Dry Density	Mg/m³	1.96
Optimum Moisture Content	%	13

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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4041

TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
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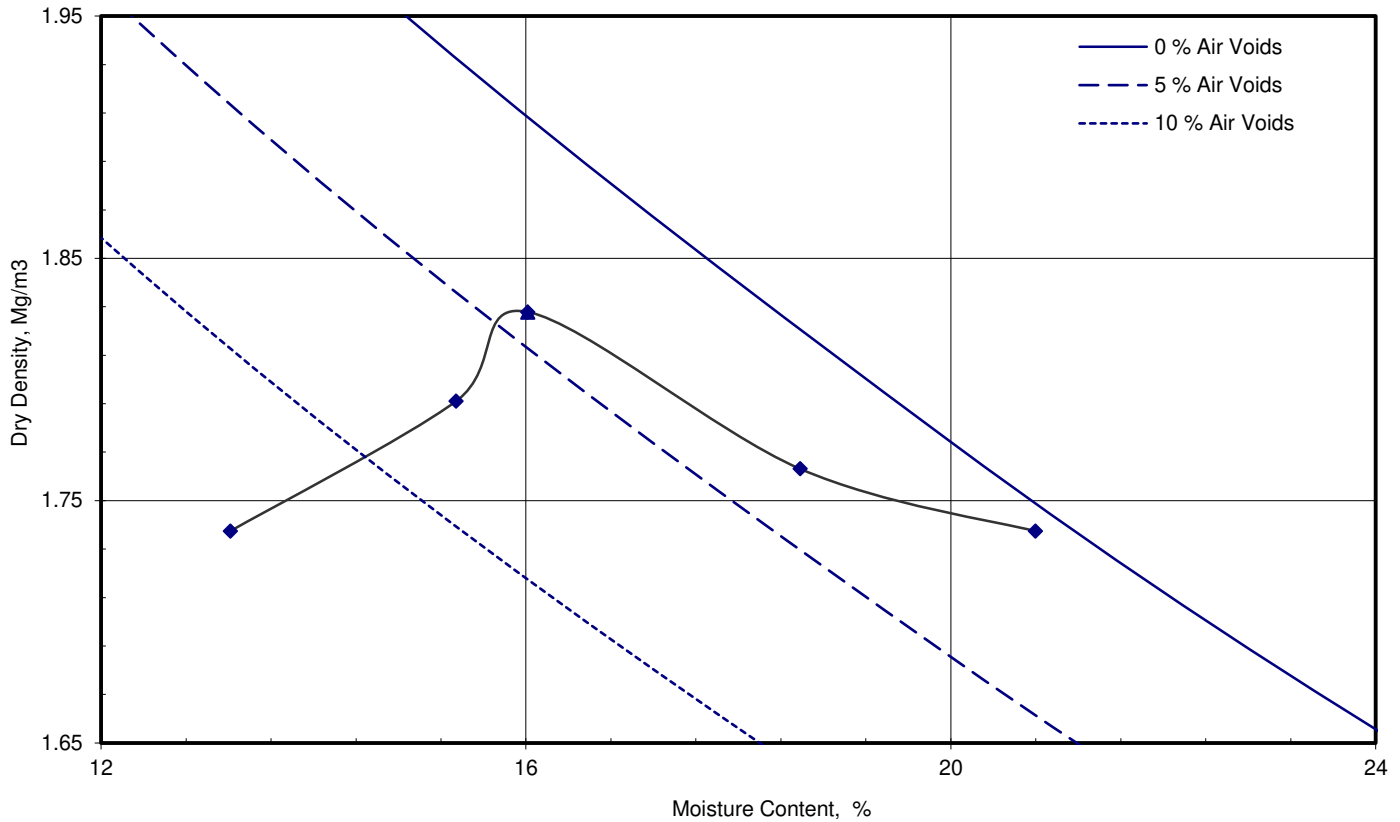
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550429
Hole No.: TP135
Sample Reference: Not Given
Sample Description: Brown very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.75
As received Moisture Content	%	27
Maximum Dry Density	Mg/m³	1.83
Optimum Moisture Content	%	16

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

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PL Technical Reviewer
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TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
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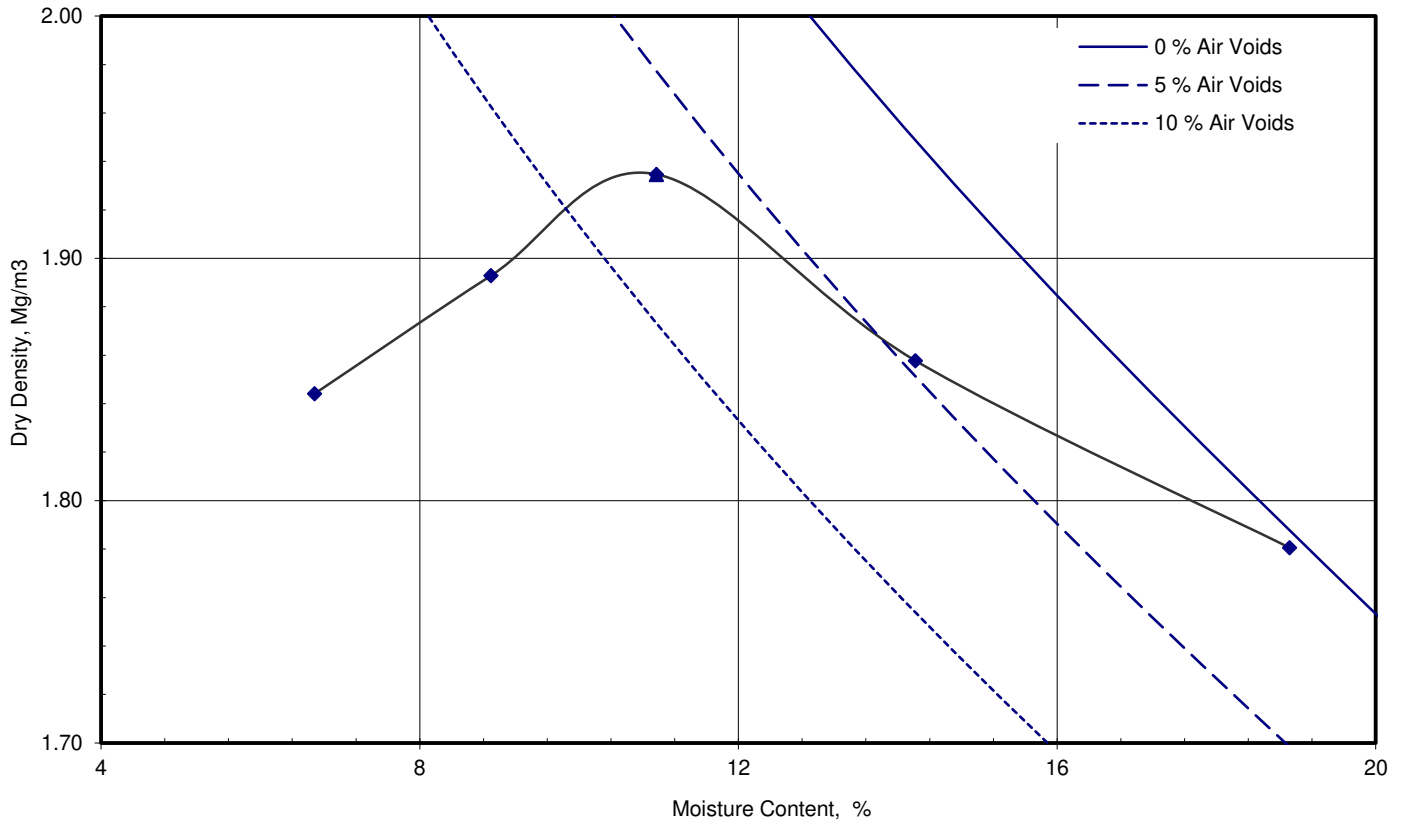
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550431
Hole No.: TP138
Sample Reference: Not Given
Sample Description: Brown sandy very clayey SILT

Depth Top [m]: 1.10
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.70
As received Moisture Content	%	17
Maximum Dry Density	Mg/m³	1.93
Optimum Moisture Content	%	11

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

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TEST CERTIFICATE
Dry Density / Moisture Content
Relationship Heavy Compaction

Tested in Accordance with:
 BS 1377-4: 1990

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Client: Brownfield Solutions Ltd
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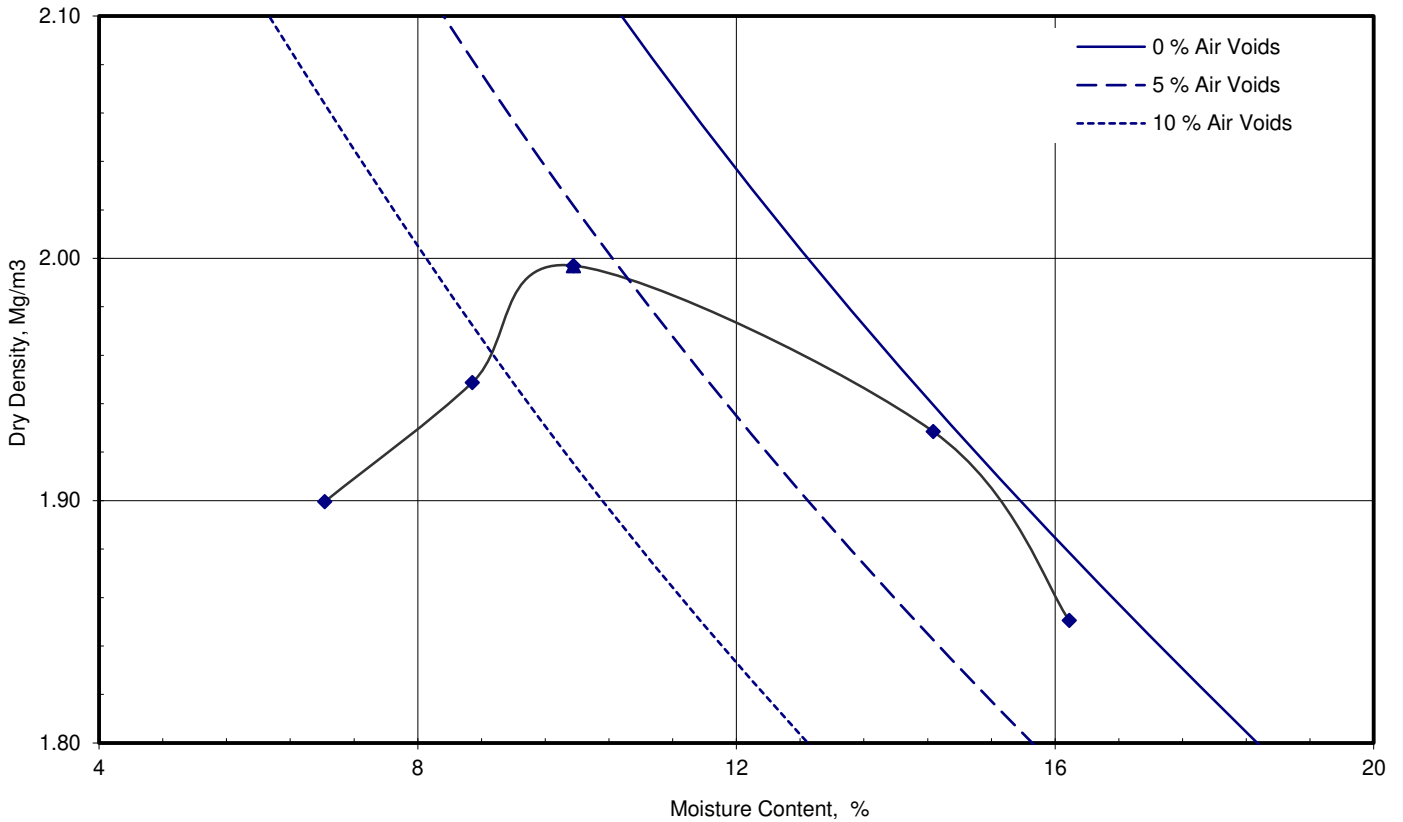
Client Reference: C4259
 Job Number: 20-17281
 Date Sampled: 22/06/2020
 Date Received: 01/07/2020
 Date Tested: 20/07/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550435
 Hole No.: TP158
 Sample Reference: Not Given
 Sample Description: Brown slightly sandy very clayey SILT

Depth Top [m]: 1.50
 Depth Base [m]: Not Given
 Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.70
As received Moisture Content	%	15
Maximum Dry Density	Mg/m³	2.00
Optimum Moisture Content	%	10

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

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TEST CERTIFICATE
Dry Density / Moisture Content
Relationship Heavy Compaction

Tested in Accordance with:
 BS 1377-4: 1990

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



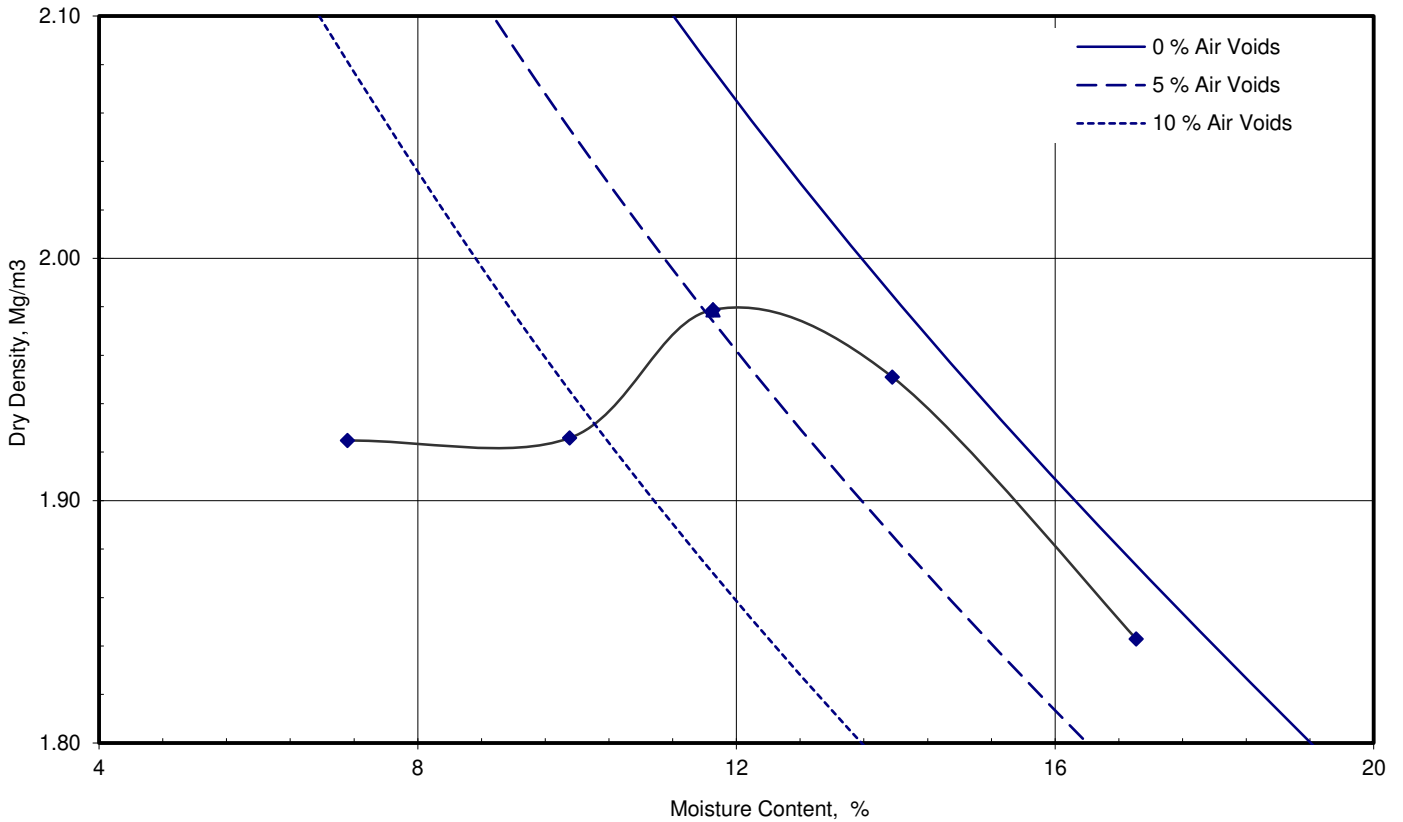
Client: Brownfield Solutions Ltd
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 Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
 Job Number: 20-17281
 Date Sampled: 23/06/2020
 Date Received: 01/07/2020
 Date Tested: 20/07/2020
 Sampled By: NS

Test Results:

Laboratory Reference: 1550437
 Hole No.: TP163
 Sample Reference: Not Given
 Sample Description: Brown very sandy SILT and CLAY

Depth Top [m]: 1.50
 Depth Base [m]: Not Given
 Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.75
As received Moisture Content	%	19
Maximum Dry Density	Mg/m³	1.98
Optimum Moisture Content	%	12

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

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4041

TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
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Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
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CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

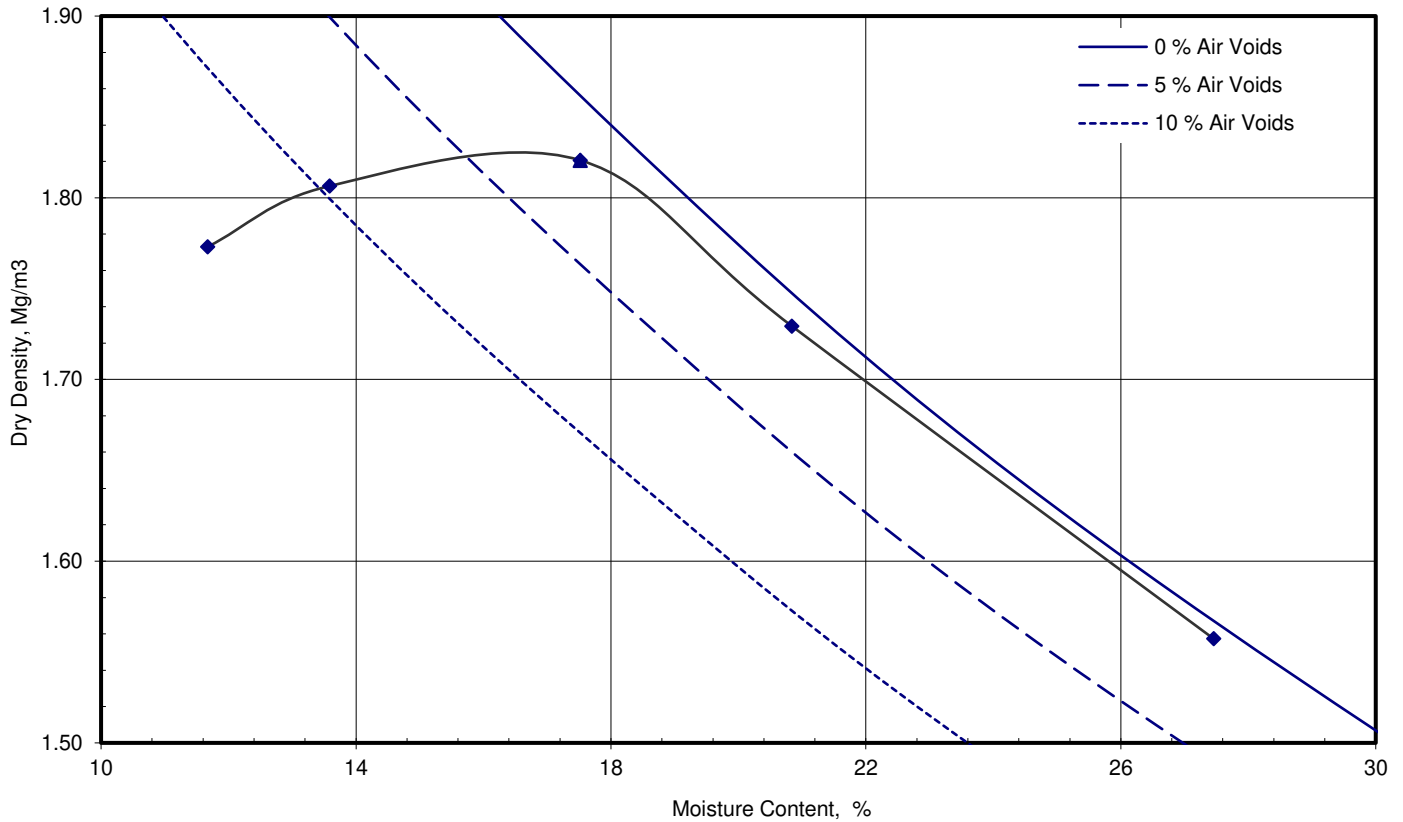
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550440
Hole No.: TP165
Sample Reference: Not Given
Sample Description: Brown very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.75
As received Moisture Content	%	25
Maximum Dry Density	Mg/m³	1.82
Optimum Moisture Content	%	18

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

Remarks:

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TEST CERTIFICATE

Dry Density / Moisture Content

Relationship Heavy Compaction

Tested in Accordance with:
BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
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Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

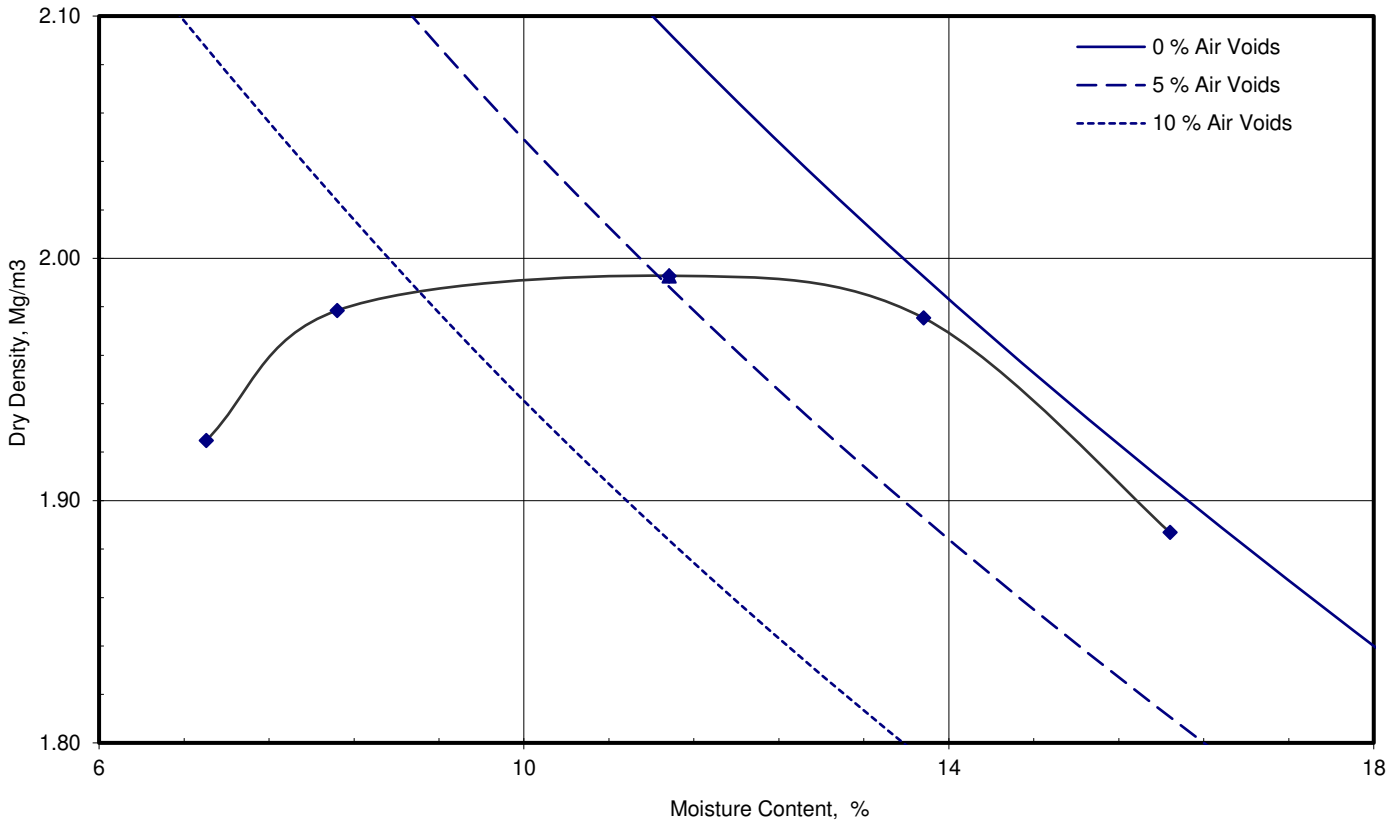
Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1550534
Hole No.: TP166
Sample Reference: Not Given
Sample Description: Dark grey sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B



Preparation		Material used was natural
Mould Type		1 Litre
Samples Used		Single sample tested
Material Retained on 37.5 mm Sieve	%	0
Material Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m ³	2.75
As received Moisture Content	%	18
Maximum Dry Density	Mg/m³	1.99
Optimum Moisture Content	%	11

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.5 using 4.5kg [heavy] Rammer

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550425
Hole No.: SA06
Sample Reference: Not Given
Soil Description: Brown sandy very clayey SILT

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
10.0	UTP	UTP	UTP	UTP	UTP	
12	UTP	UTP	UTP	UTP	UTP	
14	UTP	UTP	UTP	UTP	UTP	
17	130	130	130	130	130	
19	70	76	78	80	76	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550426
Hole No.: SA07
Sample Reference: Not Given
Soil Description: Brown slightly sandy very silty CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
8.3	UTP	UTP	UTP	UTP	UTP	
11	UTP	UTP	UTP	UTP	UTP	
13	UTP	UTP	UTP	UTP	UTP	
15	UTP	UTP	UTP	UTP	UTP	
20	UTP	UTP	UTP	UTP	UTP	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550427
Hole No.: SA08A
Sample Reference: Not Given
Soil Description: Brown slightly sandy very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
12	UTP	UTP	UTP	UTP	UTP	
15	UTP	UTP	UTP	UTP	UTP	
17	UTP	UTP	UTP	UTP	UTP	
20	>130	>130	>130	>130	130	
25	100	88	92	92	93	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
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Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550428
Hole No.: SA09
Sample Reference: Not Given
Soil Description: Brown sandy very silty CLAY

Depth Top [m]: 0.80
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
8.5	UTP	UTP	UTP	UTP	UTP	
10	UTP	UTP	UTP	UTP	UTP	
13	UTP	UTP	UTP	UTP	UTP	
15	>130	>130	>130	>130	130	
16	86	80	74	70	78	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

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Unit 8 Harrowden Road
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Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

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Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550429
Hole No.: TP135
Sample Reference: Not Given
Soil Description: Brown very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
13	UTP	UTP	UTP	UTP	UTP	
15	UTP	UTP	UTP	UTP	UTP	
16	UTP	UTP	UTP	UTP	UTP	
19	UTP	UTP	UTP	UTP	UTP	
21	UTP	UTP	UTP	UTP	UTP	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

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Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

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CW9 5LP
Contact: Nicola Swallow
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Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550431
Hole No.: TP138
Sample Reference: Not Given
Soil Description: Brown sandy very clayey SILT

Depth Top [m]: 1.10
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
6.7	UTP	UTP	UTP	UTP	UTP	
8.9	UTP	UTP	UTP	UTP	UTP	
11	UTP	UTP	UTP	UTP	UTP	
14	>130	>130	>130	>130	130	
19	84	102	120	94	100	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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Northampton NN4 7EB



Hand Shear Vane at each compaction point

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Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550435
Hole No.: TP158
Sample Reference: Not Given
Soil Description: Brown slightly sandy very clayey SILT

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
6.8	UTP	UTP	UTP	UTP	UTP	
8.7	UTP	UTP	UTP	UTP	UTP	
10.0	UTP	UTP	UTP	UTP	UTP	
14	UTP	UTP	UTP	UTP	UTP	
16	>130	>130	>130	>130	130	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550437
Hole No.: TP163
Sample Reference: Not Given
Soil Description: Brown very sandy SILT and CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
7.1	UTP	UTP	UTP	UTP	UTP	
9.9	UTP	UTP	UTP	UTP	UTP	
12	UTP	UTP	UTP	UTP	UTP	
14	UTP	UTP	UTP	UTP	UTP	
17	>130	>130	>130	>130	130	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550440
Hole No.: TP165
Sample Reference: Not Given
Soil Description: Brown very silty CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
12	UTP	UTP	UTP	UTP	UTP	
14	UTP	UTP	UTP	UTP	UTP	
18	UTP	UTP	UTP	UTP	UTP	
21	110	122	120	116	117	
27	56	54	56	56	56	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Hand Shear Vane at each compaction point

Tested in Accordance with: Guideline for Hand Shear Vane Test*

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 22/06/2020
Date Received: 01/07/2020
Date Tested: 20/07/2020
Sampled By: NS

Test Results:

Laboratory Reference: 1550534
Hole No.: TP166
Sample Reference: Not Given
Soil Description: Dark grey sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: B

Moisture Content %	Shear Vane Reading					Tv kPa
	1 kPa	2 kPa	3 kPa	4 kPa	Average kPa	
7.0	UTP	UTP	UTP	UTP	UTP	
8.2	UTP	UTP	UTP	UTP	UTP	
11	UTP	UTP	UTP	UTP	UTP	
14	UTP	UTP	UTP	UTP	UTP	
16	130	130	130	130	130	

Note: UTP - Unable To Penetrate; * - Guideline for Hand Held Shear Vane Test, New Zealand Geotechnical Society INC, August 2001

Remarks: Compacted by: Heavy Compaction 4.5kg (BS1377:Part 4:1990).

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4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Moisture Condition Value Test Results

Tested in Accordance with: BS 1377-4: 1990: Clause 5.4

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client Reference: C4259
 Job Number: 20-17281
 Date Sampled: 17/06 - 23/06/2020
 Date Received: 01/07/2020
 Date Tested: 20/07/2020
 Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Retained on 20mm sieve %	Moisture Content <20mm %	Moisture Condition Value	Method of Interpretation						
		Reference	Depth Top m	Depth Base m	Type												
1550425	SA06	Not Given	1.00	Not Given	B	Brown sandy very clayey SILT	0	17	12.2	Best fit line							
1550426	SA07	Not Given	1.00	Not Given	B	Brown slightly sandy very silty CLAY	0	19	12.2	Best fit line							
1550427	SA08A	Not Given	2.00	Not Given	B	Brown slightly sandy very silty CLAY	0	30	10.7	Best fit line							
1550428	SA09	Not Given	0.80	Not Given	B	Brown sandy very silty CLAY	0	16	15.3	Steepest straight line							
1550429	TP135	Not Given	2.00	Not Given	B	Brown very silty CLAY	0	27	12.1	Steepest straight line							
1550431	TP138	Not Given	1.10	Not Given	B	Brown sandy very clayey SILT	0	20	11.5	Best fit line							
1550435	TP158	Not Given	1.50	Not Given	B	Brown slightly sandy very clayey SILT	0	15	15.3	Best fit line							
1550437	TP163	Not Given	1.50	Not Given	B	Brown very sandy SILT and CLAY	1	17	12.7	Steepest straight line							
1550440	TP165	Not Given	2.00	Not Given	B	Brown very silty CLAY	0	26	9.4	Best fit line							
1550534	TP166	Not Given	1.50	Not Given	B	Dark grey sandy CLAY	0	17	10.2	Steepest straight line							

Comments:

Signed:

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 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 12/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

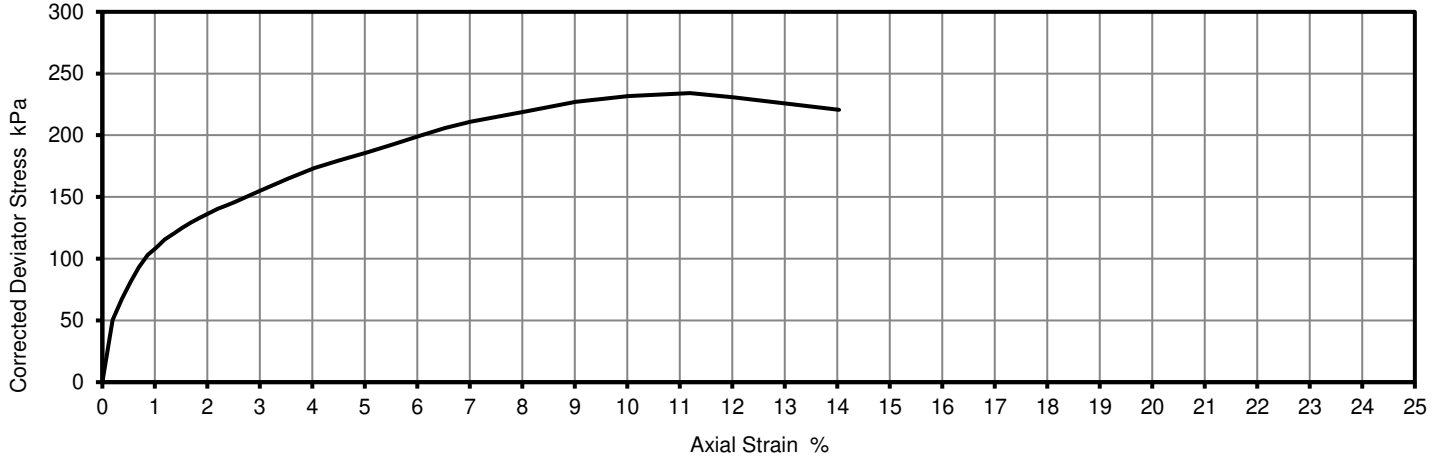
Laboratory Reference: 1550412
Hole No.: BH12
Sample Reference: Not Given
Sample Description: Brown CLAY

Depth Top [m]: 2.20
Depth Base [m]: 2.65
Sample Type: U

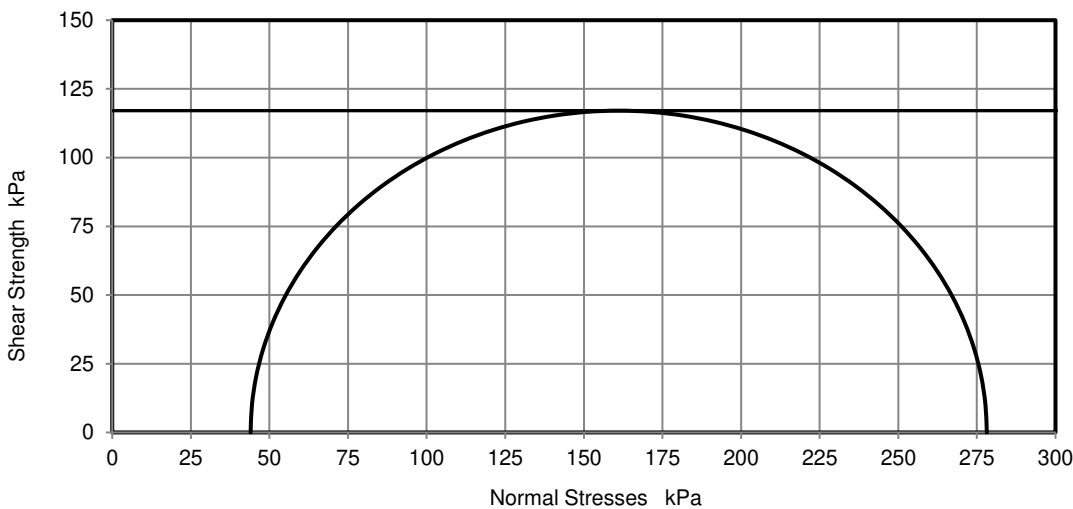
Test Number	1
Length	189.27 mm
Diameter	102.66 mm
Bulk Density	1.99 Mg/m ³
Moisture Content	25 %
Dry Density	1.59 Mg/m ³
Membrane Correction	0.68 kPa

Rate of Strain	2.00 %/min
Cell Pressure	44 kPa
Axial Strain at failure	11.2 %
Deviator Stress, (σ ₁ - σ ₃) _f	234 kPa
Undrained Shear Strength, c _u	117 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Brittle
Membrane thickness	0.29 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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PL Technical Reviewer
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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

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BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
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Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 12/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

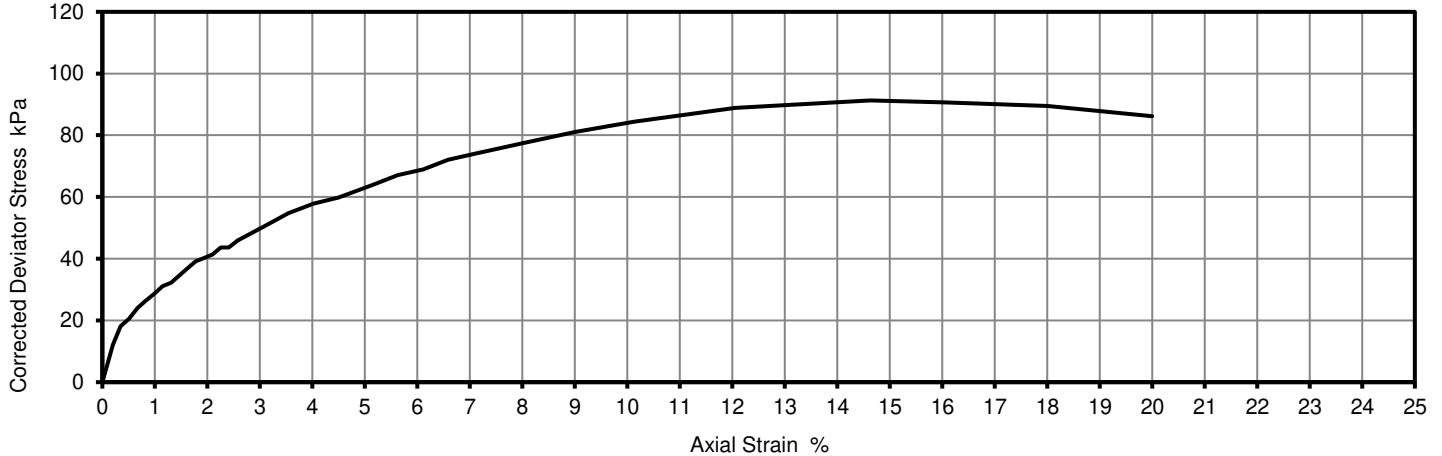
Laboratory Reference: 1550413
Hole No.: BH12
Sample Reference: Not Given
Sample Description: Reddish brown CLAY

Depth Top [m]: 8.50
Depth Base [m]: 8.95
Sample Type: U

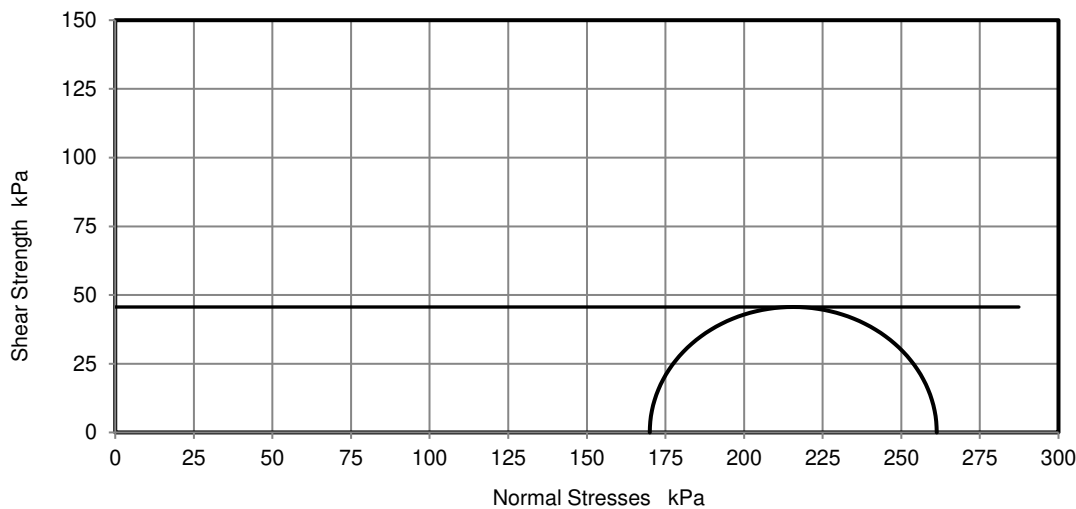
Test Number	1
Length	206.78 mm
Diameter	102.46 mm
Bulk Density	1.96 Mg/m ³
Moisture Content	29 %
Dry Density	1.52 Mg/m ³
Membrane Correction	0.87 kPa

Rate of Strain	1.93 %/min
Cell Pressure	170 kPa
Axial Strain at failure	14.6 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	91 kPa
Undrained Shear Strength, c_u	46 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.30 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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Triaxial Compression

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i2 Analytical Ltd
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Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
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Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 11/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Test Results:

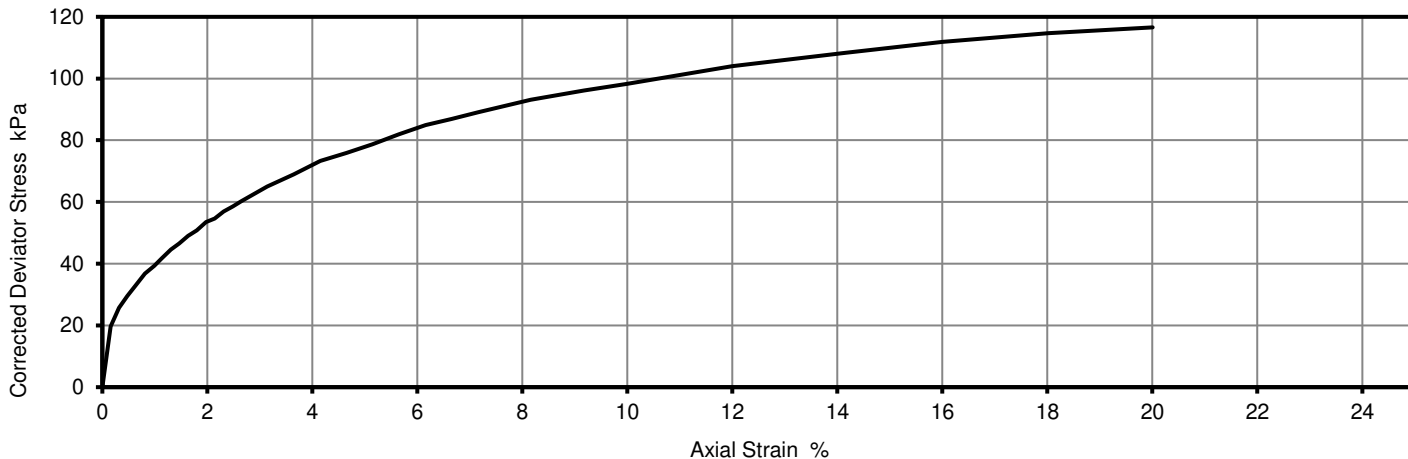
Laboratory Reference: 1550415
Hole No.: BH13
Sample Reference: Not Given
Sample Description: Brown slightly gravelly CLAY

Depth Top [m]: 7.10
Depth Base [m]: 7.55
Sample Type: U

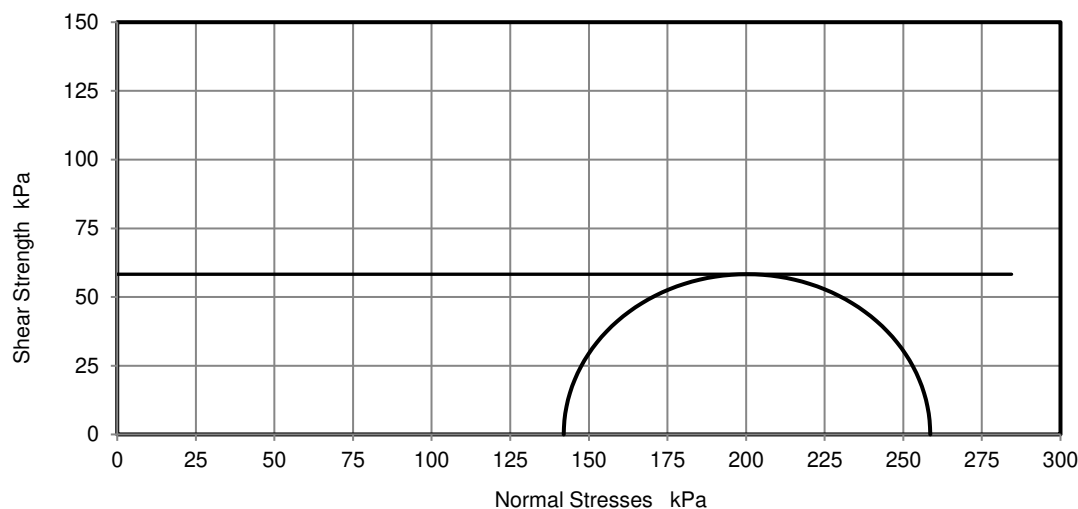
Test Number	1
Length	140.16 mm
Diameter	69.54 mm
Bulk Density	2.12 Mg/m ³
Moisture Content	18 %
Dry Density	1.79 Mg/m ³
Membrane Correction	1.38 kPa

Rate of Strain	2.00 %/min
Cell Pressure	142 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	117 kPa
Undrained Shear Strength, c_u	58 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.25 mm

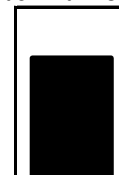
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 12/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

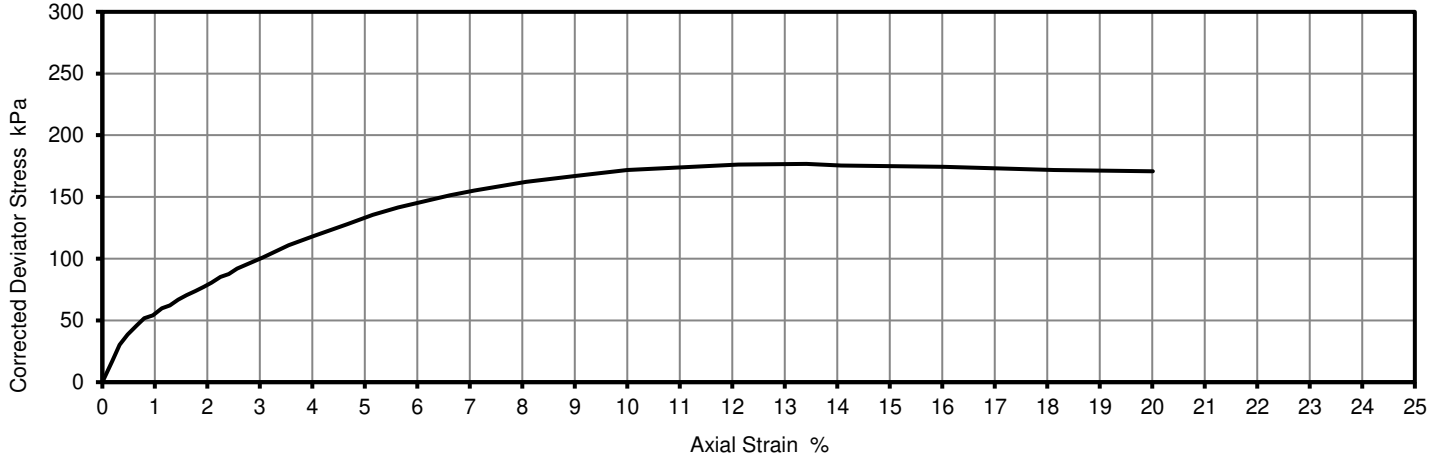
Laboratory Reference: 1550417
Hole No.: BH15
Sample Reference: Not Given
Sample Description: Reddish brown CLAY

Depth Top [m]: 7.10
Depth Base [m]: 7.55
Sample Type: U

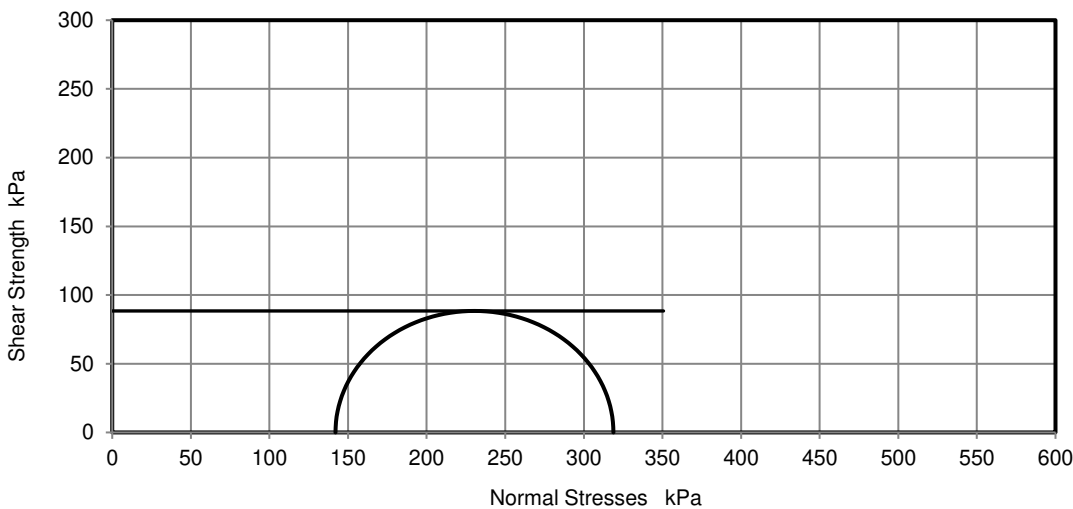
Test Number	1
Length	204.70 mm
Diameter	102.40 mm
Bulk Density	2.04 Mg/m ³
Moisture Content	27 %
Dry Density	1.61 Mg/m ³
Membrane Correction	0.90 kPa

Rate of Strain	1.95 %/min
Cell Pressure	142 kPa
Axial Strain at failure	13.4 %
Deviator Stress, (σ ₁ - σ ₃) _f	177 kPa
Undrained Shear Strength, c _u	88 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.33 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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Unconsolidated Undrained

Triaxial Compression

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Client: Brownfield Solutions Ltd
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Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 17/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

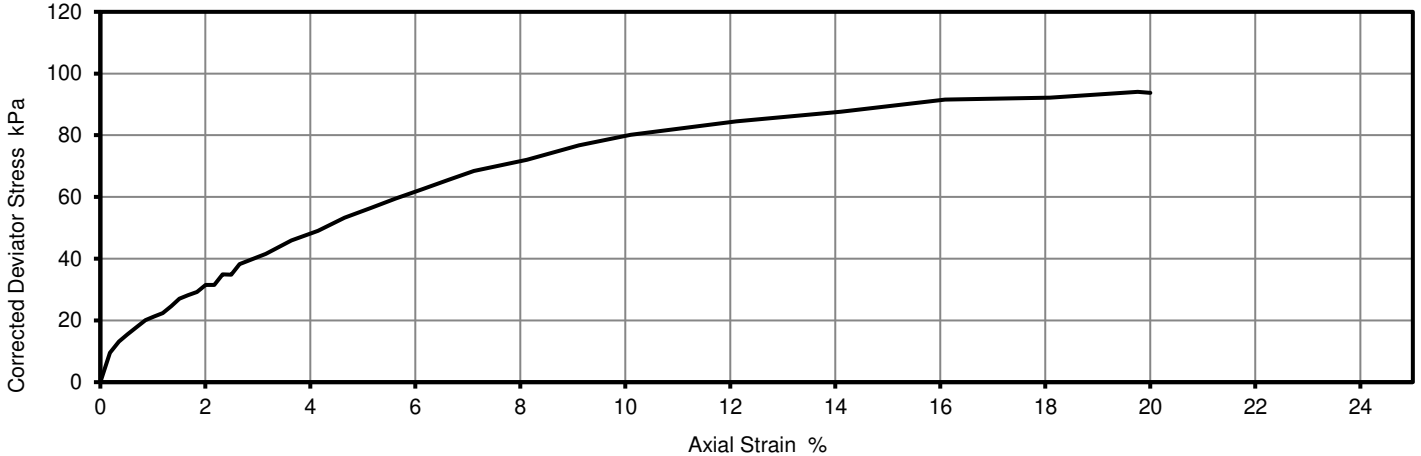
Laboratory Reference: 1550418
Hole No.: CP07
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 5.00
Depth Base [m]: 5.45
Sample Type: U

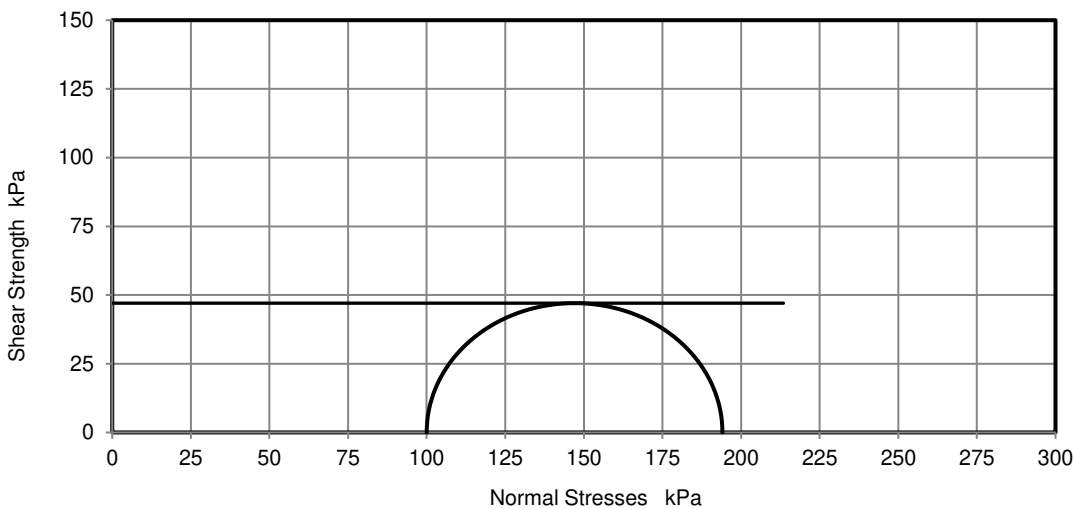
Test Number	1
Length	199.10 mm
Diameter	103.11 mm
Bulk Density	2.14 Mg/m ³
Moisture Content	18 %
Dry Density	1.80 Mg/m ³
Membrane Correction	1.07 kPa

Rate of Strain	2.00 %/min
Cell Pressure	100 kPa
Axial Strain at failure	19.8 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	94 kPa
Undrained Shear Strength, c_u	47 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.29 mm

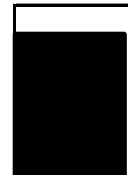
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
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Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 18/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

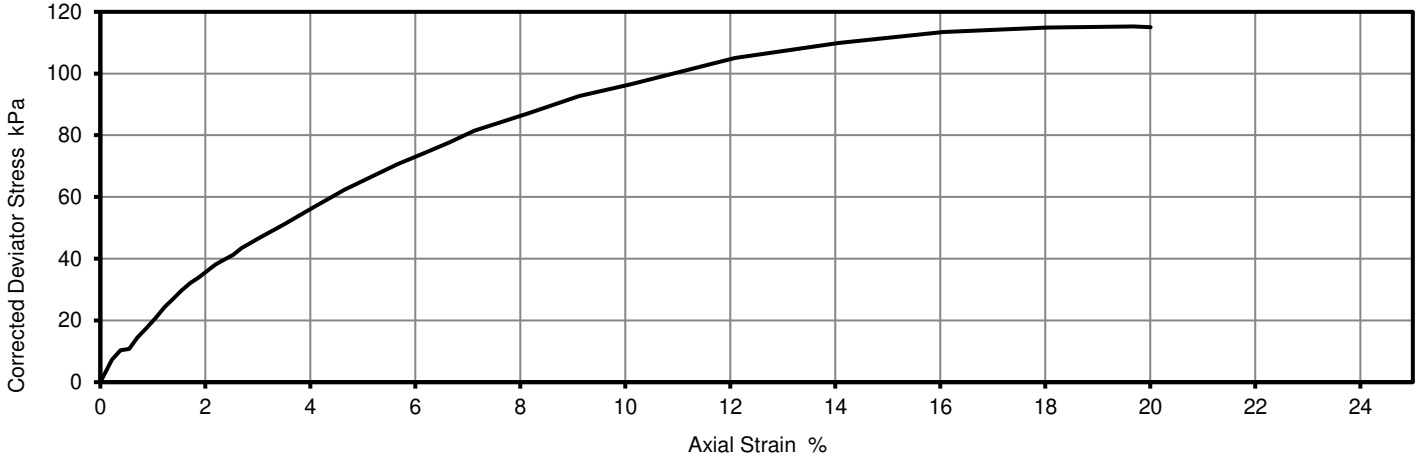
Laboratory Reference: 1550420
Hole No.: CP08
Sample Reference: Not Given
Sample Description: Brown CLAY

Depth Top [m]: 9.00
Depth Base [m]: 9.45
Sample Type: U

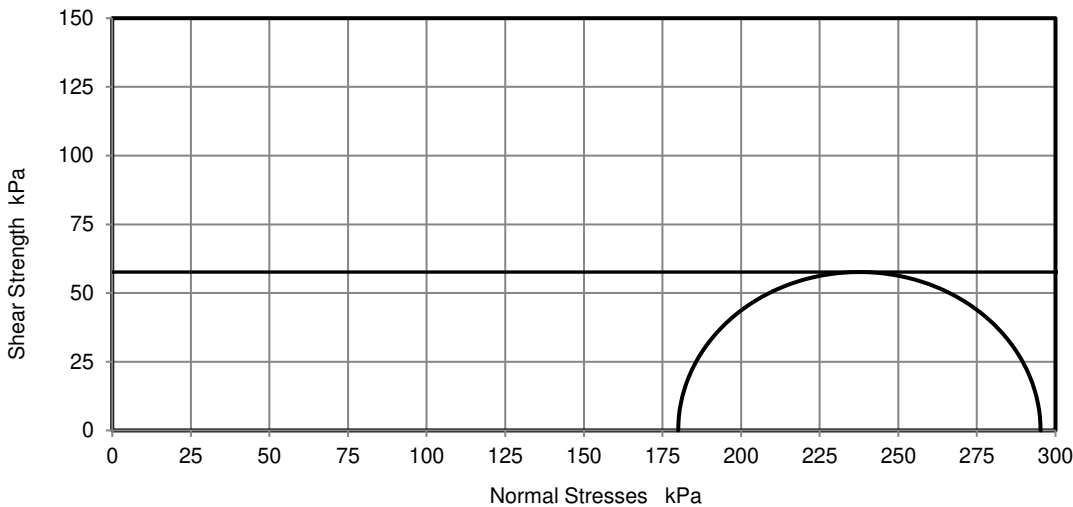
Test Number	1
Length	202.45 mm
Diameter	102.68 mm
Bulk Density	1.96 Mg/m ³
Moisture Content	27 %
Dry Density	1.55 Mg/m ³
Membrane Correction	1.03 kPa

Rate of Strain	1.98 %/min
Cell Pressure	180 kPa
Axial Strain at failure	19.7 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	115 kPa
Undrained Shear Strength, c_u	58 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Brittle
Membrane thickness	0.28 mm

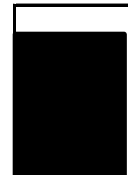
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

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BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

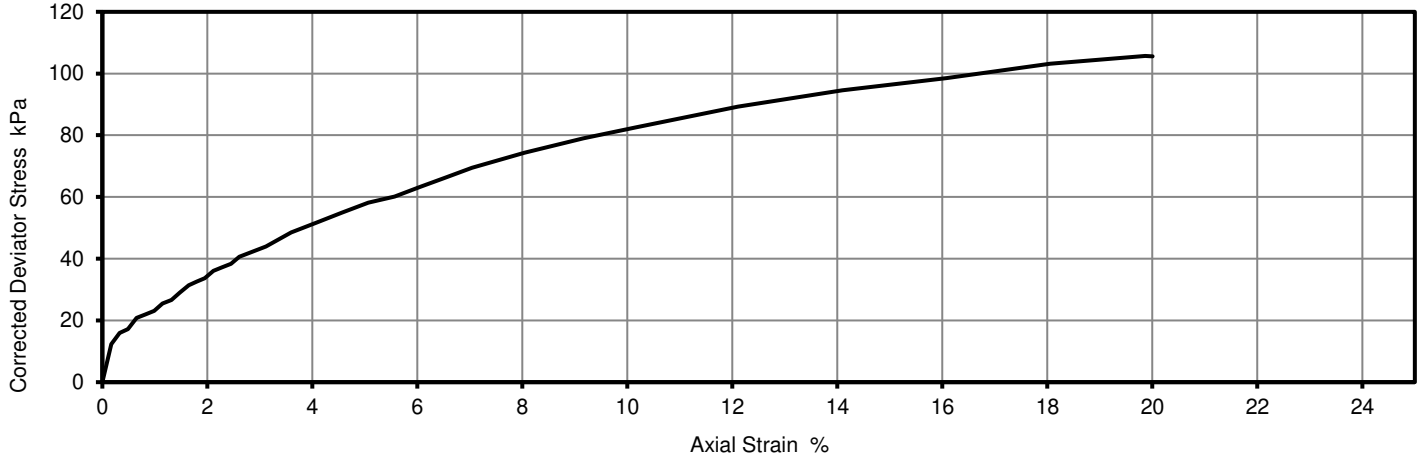
Laboratory Reference: 1550421
Hole No.: CP09
Sample Reference: Not Given
Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 7.50
Depth Base [m]: 7.95
Sample Type: U

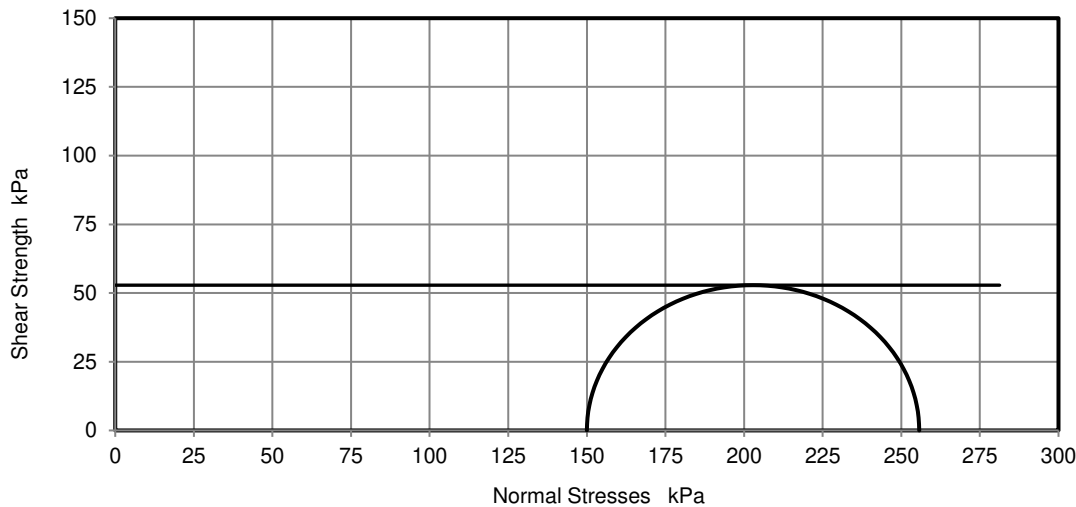
Test Number	1
Length	202.15 mm
Diameter	101.63 mm
Bulk Density	2.21 Mg/m ³
Moisture Content	15 %
Dry Density	1.92 Mg/m ³
Membrane Correction	0.98 kPa

Rate of Strain	1.98 %/min
Cell Pressure	150 kPa
Axial Strain at failure	19.9 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	106 kPa
Undrained Shear Strength, c_u	53 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.26 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Unconsolidated Undrained

Triaxial Compression

Tested in Accordance with:
BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 13, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17281
Date Sampled: 23/06/2020
Date Received: 01/07/2020
Date Tested: 10/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

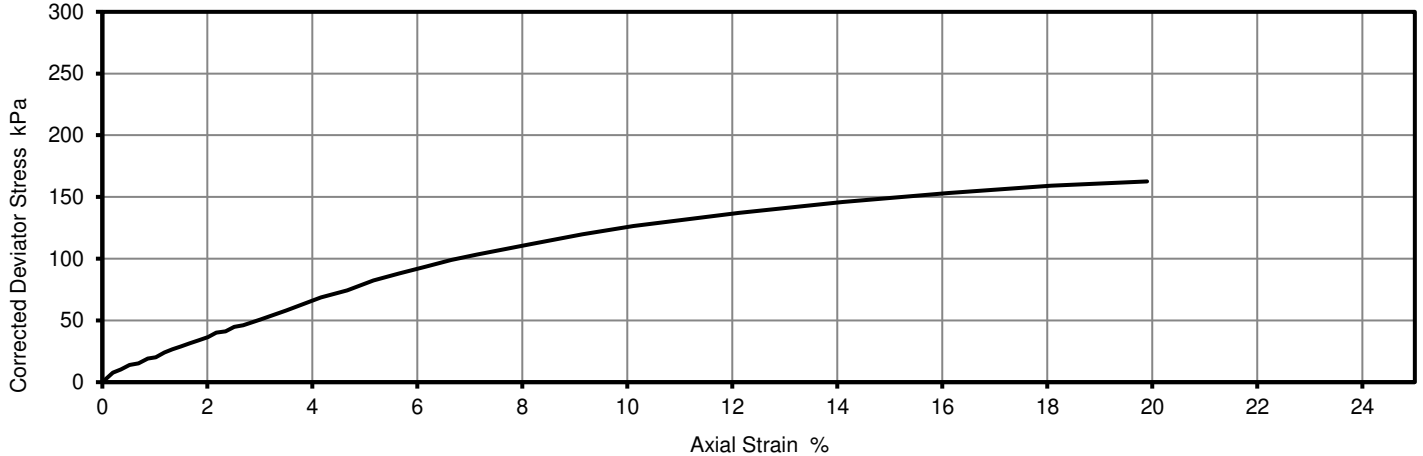
Laboratory Reference: 1550424
Hole No.: CP09
Sample Reference: Not Given
Sample Description: Brown CLAY

Depth Top [m]: 12.00
Depth Base [m]: 12.45
Sample Type: U

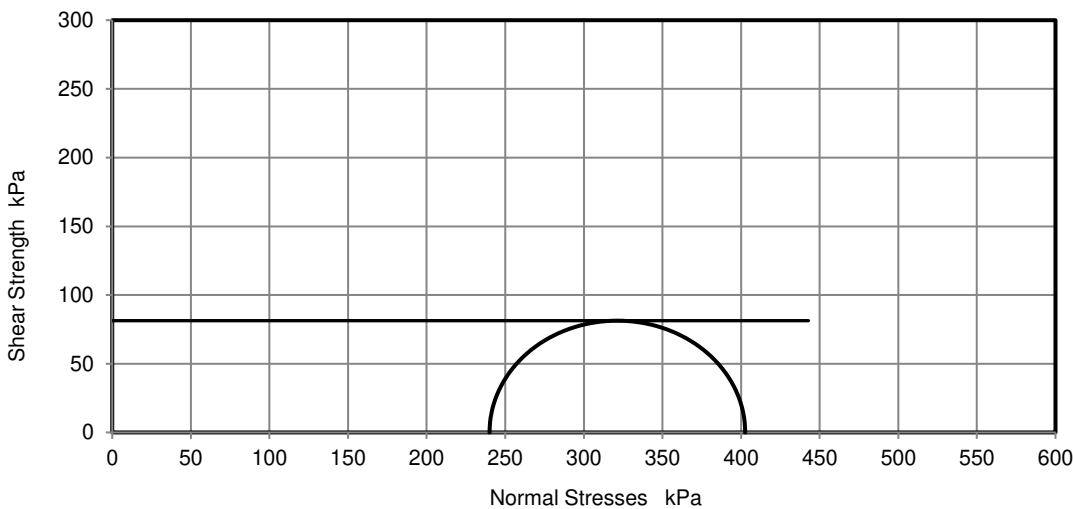
Test Number	1
Length	196.69 mm
Diameter	99.55 mm
Bulk Density	2.16 Mg/m ³
Moisture Content	21 %
Dry Density	1.78 Mg/m ³
Membrane Correction	1.00 kPa

Rate of Strain	2.00 %/min
Cell Pressure	240 kPa
Axial Strain at failure	19.9 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	163 kPa
Undrained Shear Strength, c_u	81 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.26 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

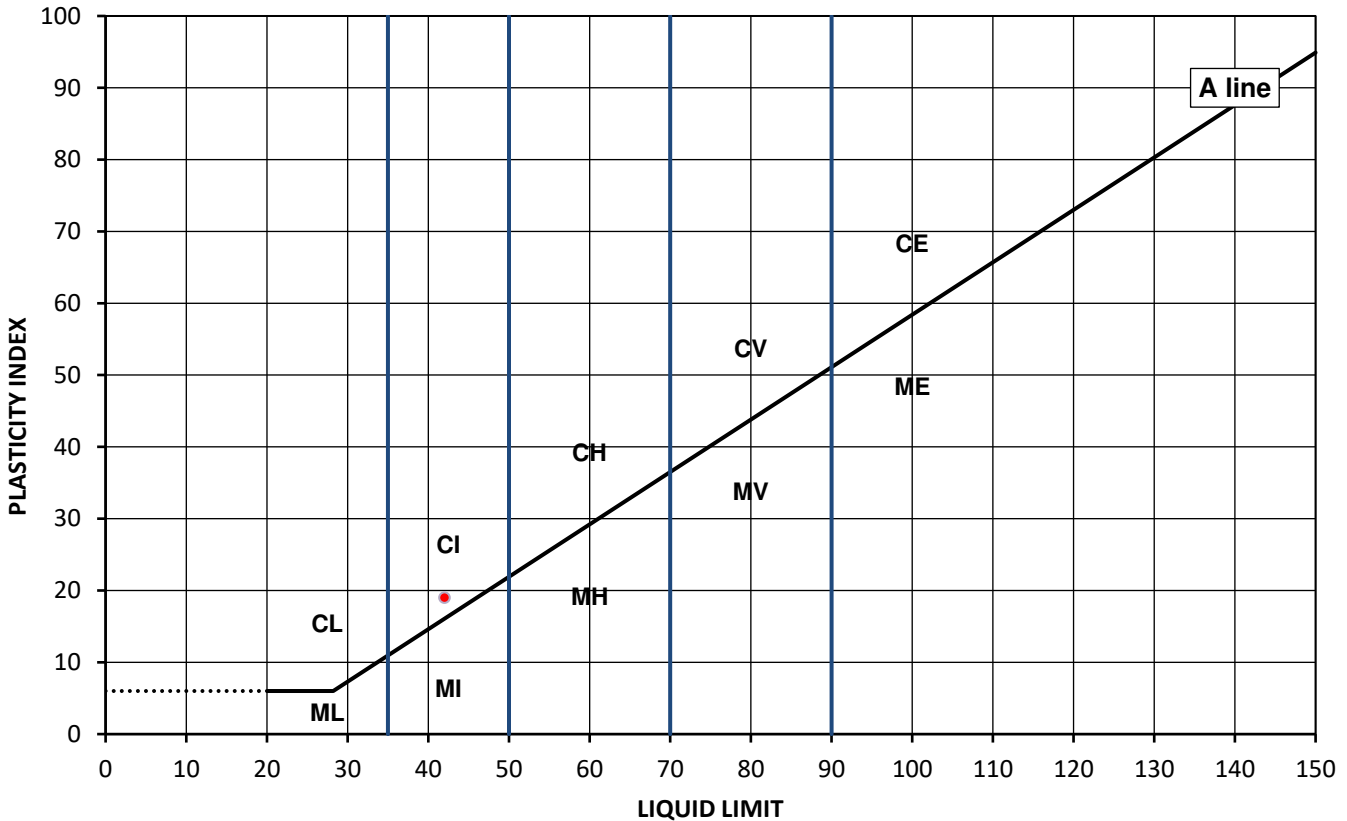
Test Results:

Laboratory Reference: 1551274
Hole No.: WS126
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	42	23	19	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

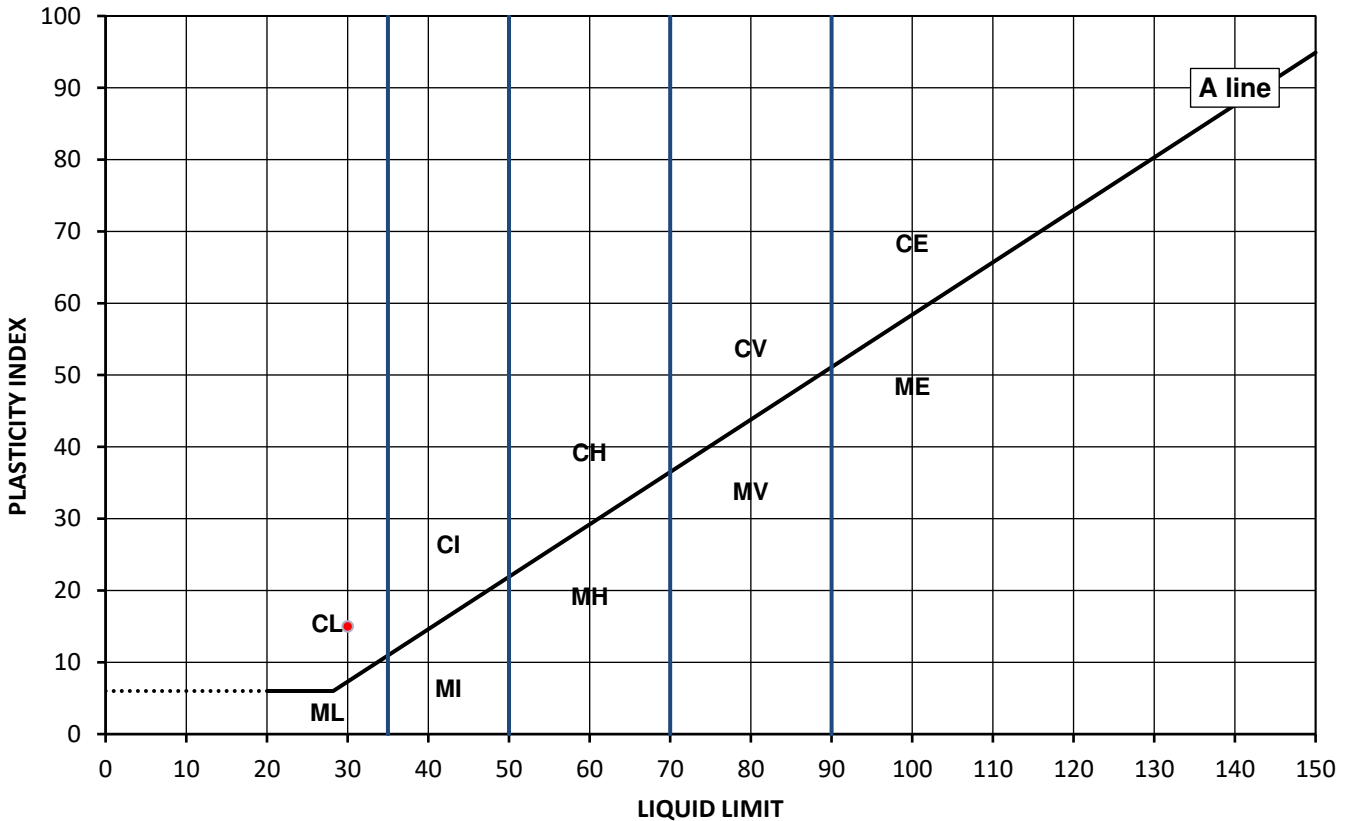
Test Results:

Laboratory Reference: 1551275
Hole No.: WS129
Sample Reference: Not Given
Soil Description: Brown slightly gravelly very sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
13	30	15	15	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

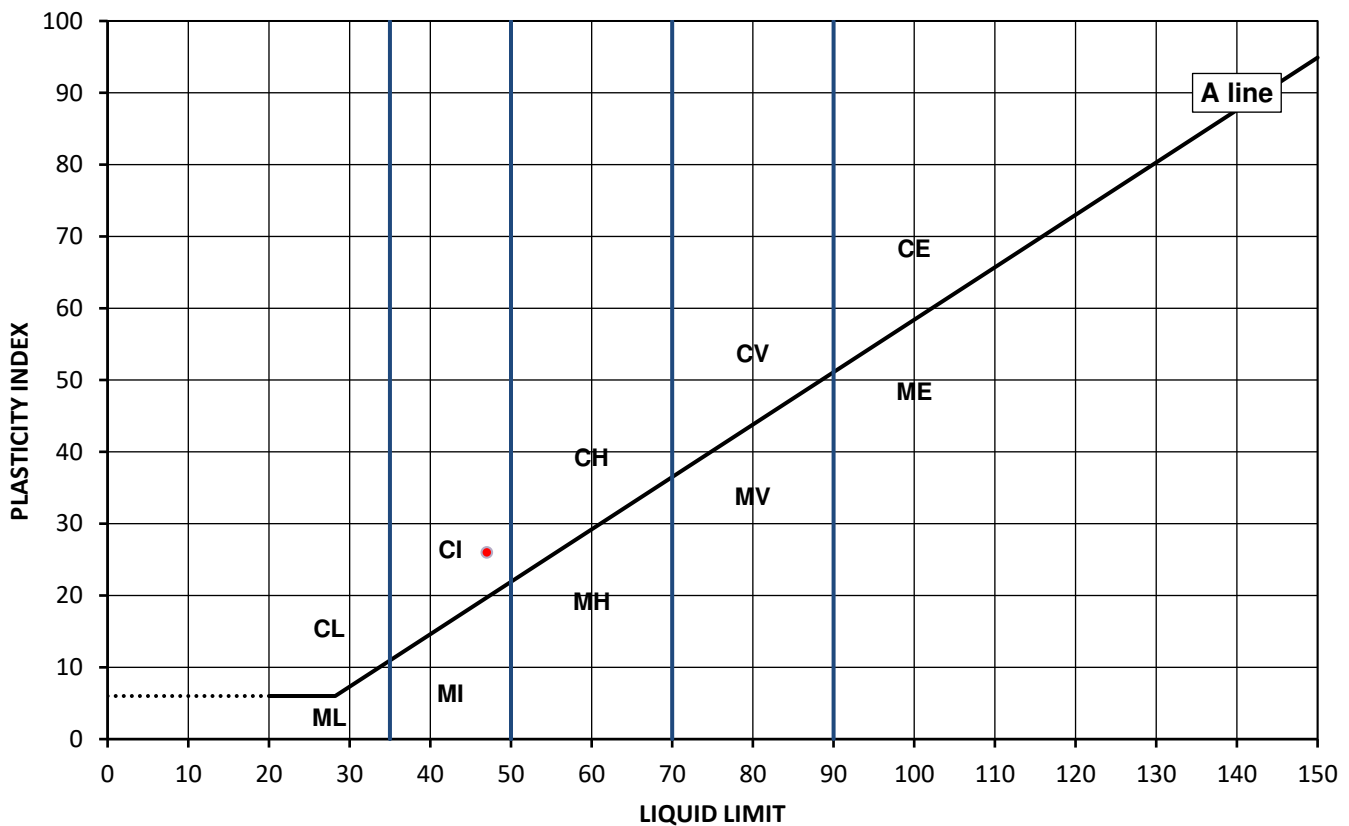
Test Results:

Laboratory Reference: 1551279
Hole No.: TP185
Sample Reference: Not Given
Soil Description: Brown slightly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
26	47	21	26	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 24/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

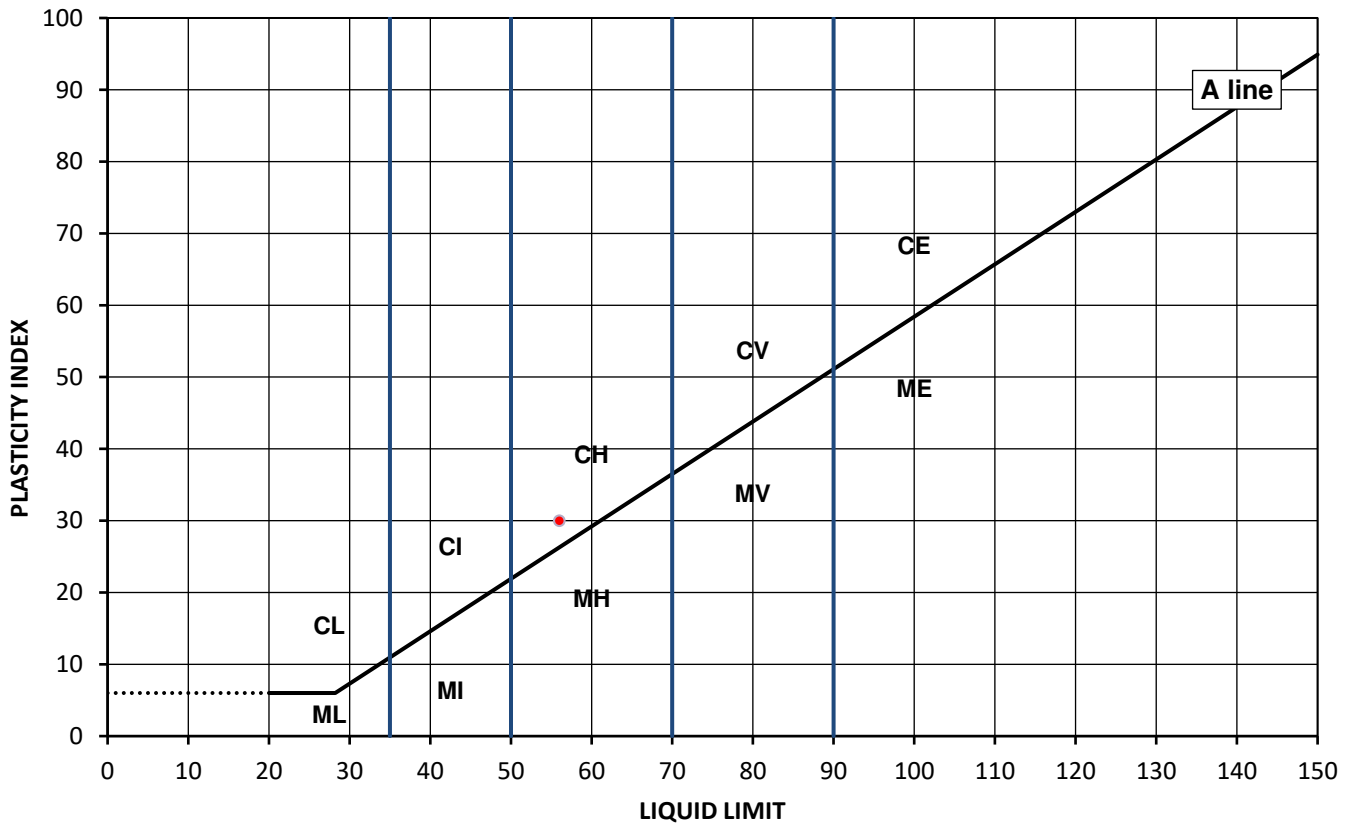
Test Results:

Laboratory Reference: 1551280
Hole No.: SA10
Sample Reference: Not Given
Soil Description: Dark brown slightly sandy CLAY

Depth Top [m]: 1.80
Depth Base [m]: Not Given
Sample Type: B

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
25	56	26	30	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
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4041

SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014;
Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS
1377-2: 1990: Clause 8.2

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06 - 24/06/2020
Date Received: 01/07/2020
Date Tested: 08/07 - 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL	PL	PI	bulk	dry	PD	
1551280	SA10	Not Given	1.80	Not Given	B	Dark brown slightly sandy CLAY	Atterberg 1 Point	25		100	56	26	30				
1551279	TP185	Not Given	2.00	Not Given	D	Brown slightly sandy CLAY	Atterberg 1 Point	26		100	47	21	26				
1551274	WS126	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		97	42	23	19				
1551275	WS129	Not Given	2.00	2.45	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	13		99	30	15	15				
1551277	WS132	Not Given	1.20	1.65	D	Brown slightly sandy CLAY		23									

Note: # Non accredited; NP - Non plastic

Comments: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with: BS 1377-2: 1990

4041

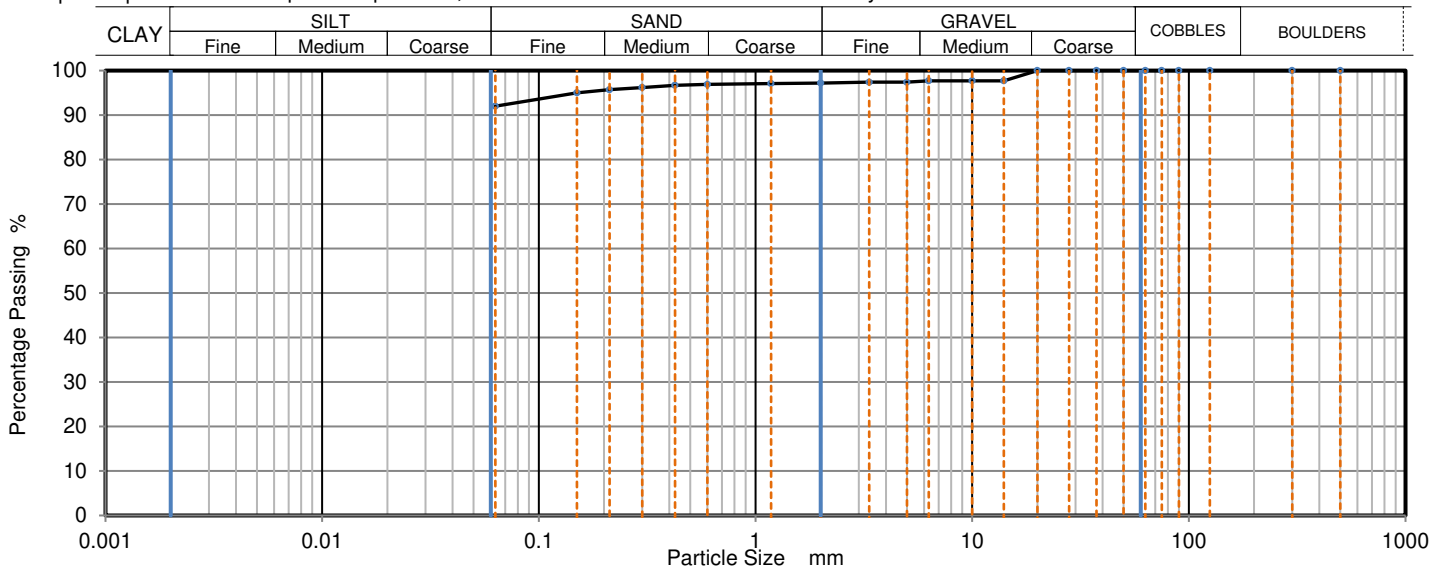
Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1551276
Hole No.: WS131
Sample Reference: Not Given
Sample Description: Dark brown slightly gravelly slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.7 °C and broken down by hand.
Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	98		
10	98		
6.3	98		
5	97		
3.35	97		
2	97		
1.18	97		
0.6	97		
0.425	97		
0.3	96		
0.212	96		
0.15	95		
0.063	93		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	2.80
Sand	4.30
Fines <0.063mm	92.90

Grading Analysis		
D100	mm	20
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with: BS 1377-2: 1990

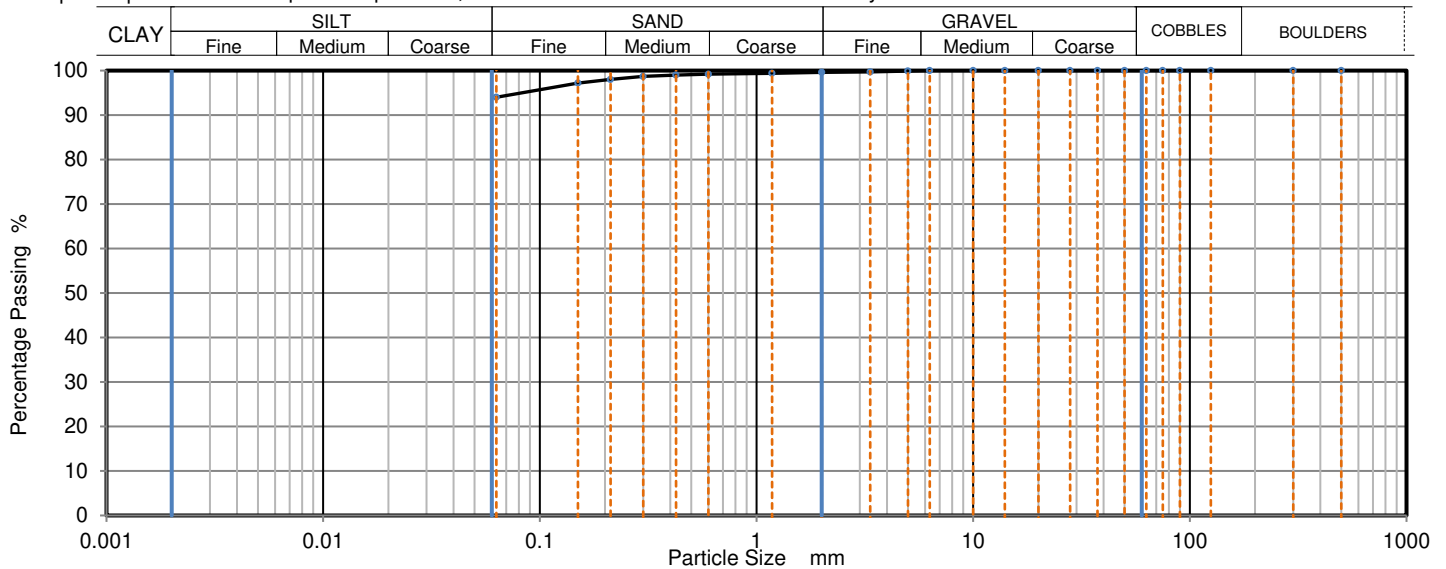
Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1551277
Hole No.: WS132
Sample Reference: Not Given
Sample Description: Brown slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 106.7 °C and broken down by hand.
Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.6	99		
0.425	99		
0.3	99		
0.212	98		
0.15	97		
0.063	95		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.40
Sand	4.80
Fines <0.063mm	94.80

Grading Analysis		
D100	mm	6.3
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with: BS 1377-2: 1990

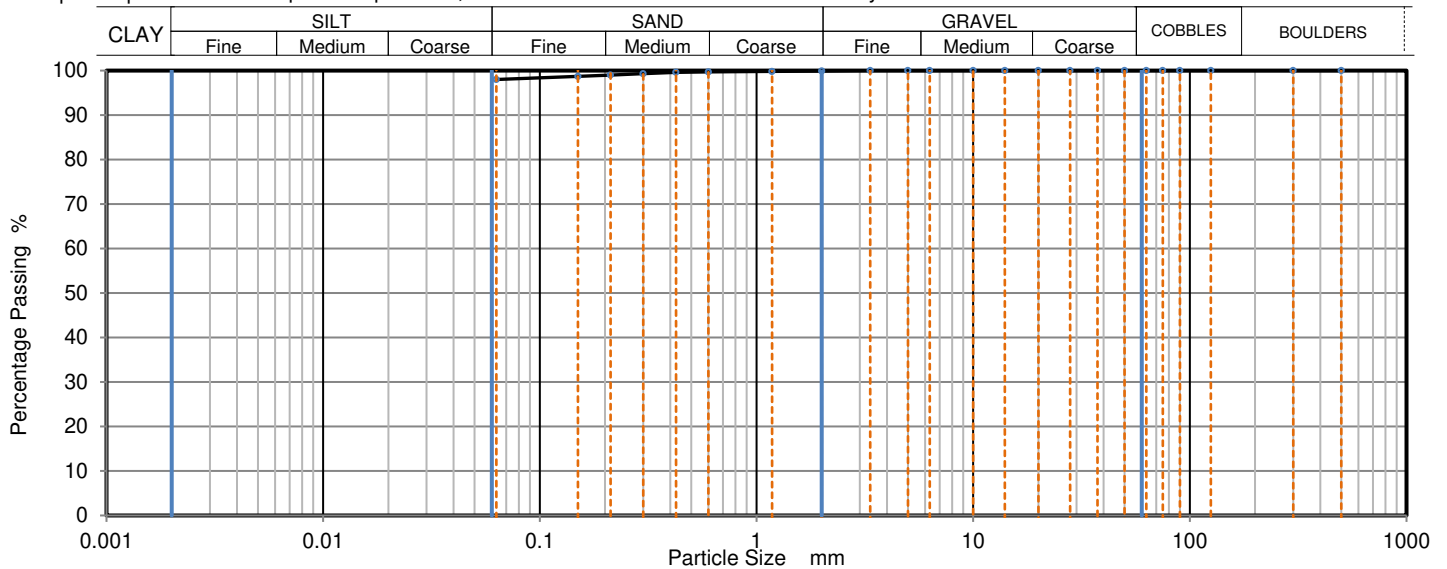
Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 24/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1551278
Hole No.: TP184
Sample Reference: Not Given
Sample Description: Brown CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.
Depth Top [m]: 2.50
Depth Base [m]: 2.70
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	99		
0.212	99		
0.15	99		
0.063	98		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.10
Sand	1.80
Fines <0.063mm	98.10

Grading Analysis		
D100	mm	6.3
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with: BS 1377-2: 1990

4041

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

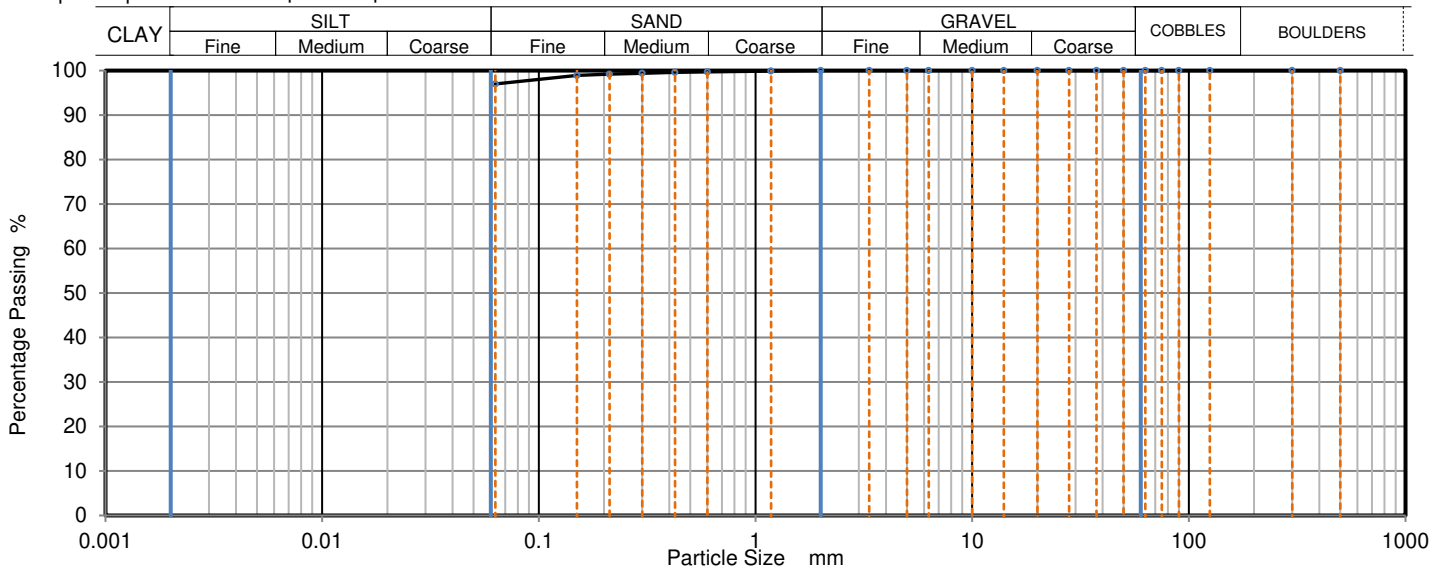
Client Reference: C4259
Job Number: 20-17444
Date Sampled: 16/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1551279
Hole No.: TP185
Sample Reference: Not Given
Sample Description: Brown slightly sandy CLAY
Sample Preparation: Sample was quartered

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	99		
0.212	99		
0.15	99		
0.063	98		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.00
Sand	2.20
Fines <0.063mm	97.80

Grading Analysis		
D100	mm	2
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

Particle Size Distribution

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with: BS 1377-2: 1990

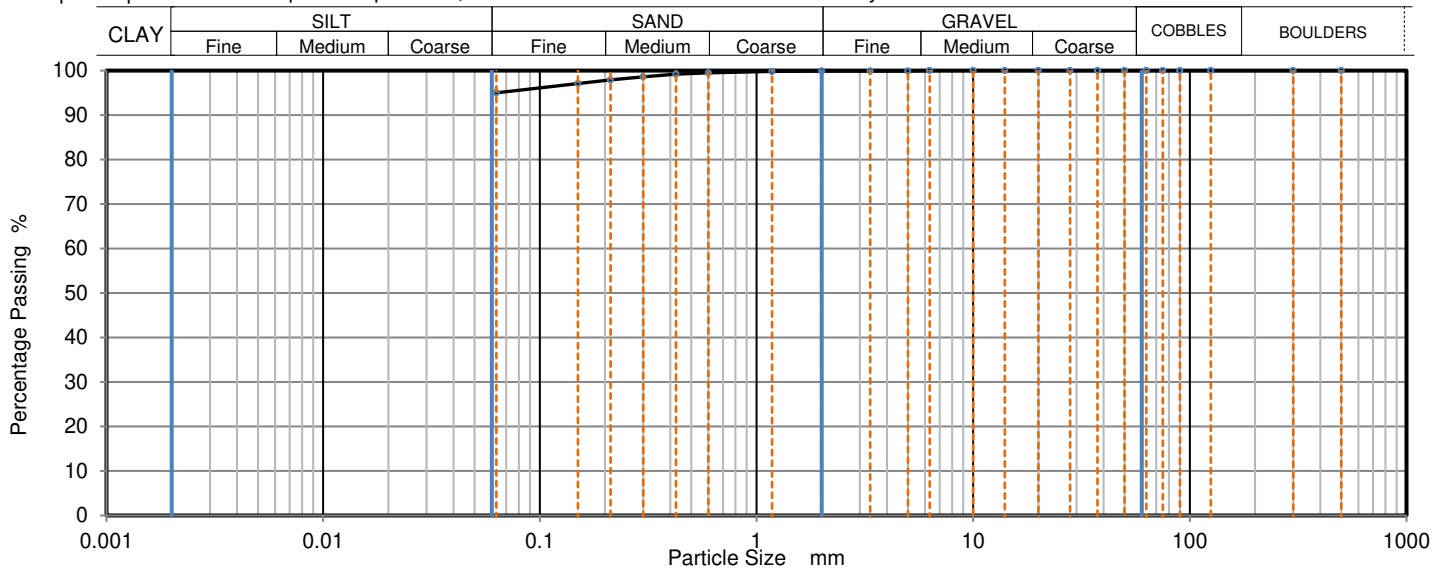
Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 14, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-17444
Date Sampled: 24/06/2020
Date Received: 01/07/2020
Date Tested: 08/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference: 1551280
Hole No.: SA10
Sample Reference: Not Given
Sample Description: Dark brown slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 108.1 °C and broken down by hand.
Depth Top [m]: 1.80
Depth Base [m]: Not Given
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.6	100		
0.425	99		
0.3	99		
0.212	98		
0.15	97		
0.063	95		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	0.10
Sand	4.80
Fines <0.063mm	95.10

Grading Analysis		
D100	mm	6.3
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP
 Contact: Nicola Swallow
 Site Address: Area 14, The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-17444
 Date Sampled: 15/06/2020
 Date Received: 01/07/2020
 Date Tested: 10/07/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

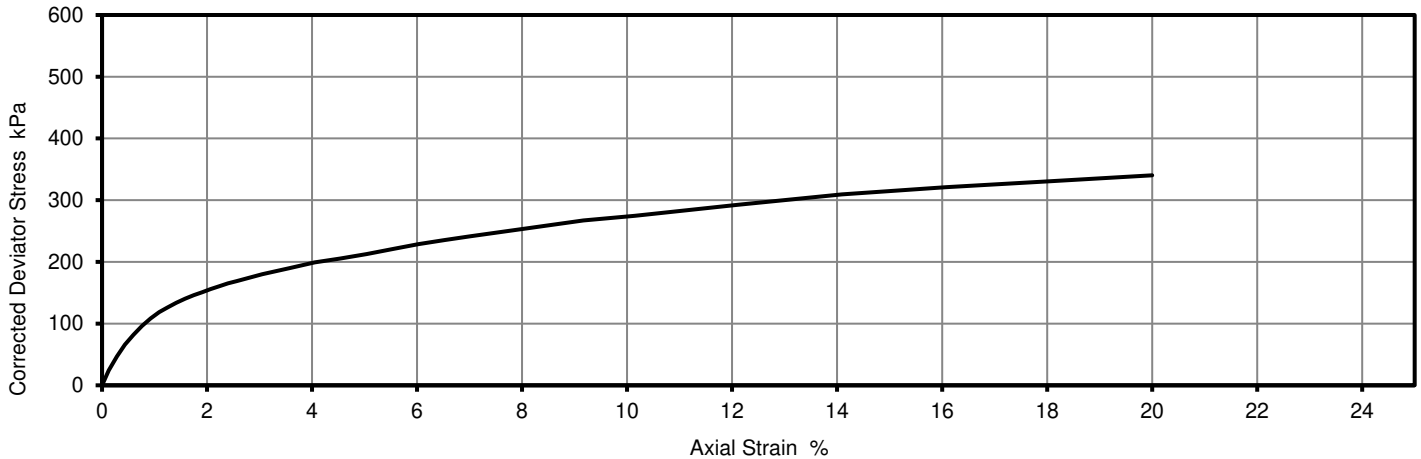
Laboratory Reference: 1551272
 Hole No.: BH14
 Sample Reference: Not Given
 Sample Description: Brown CLAY

Depth Top [m]: 2.30
 Depth Base [m]: 2.80
 Sample Type: U

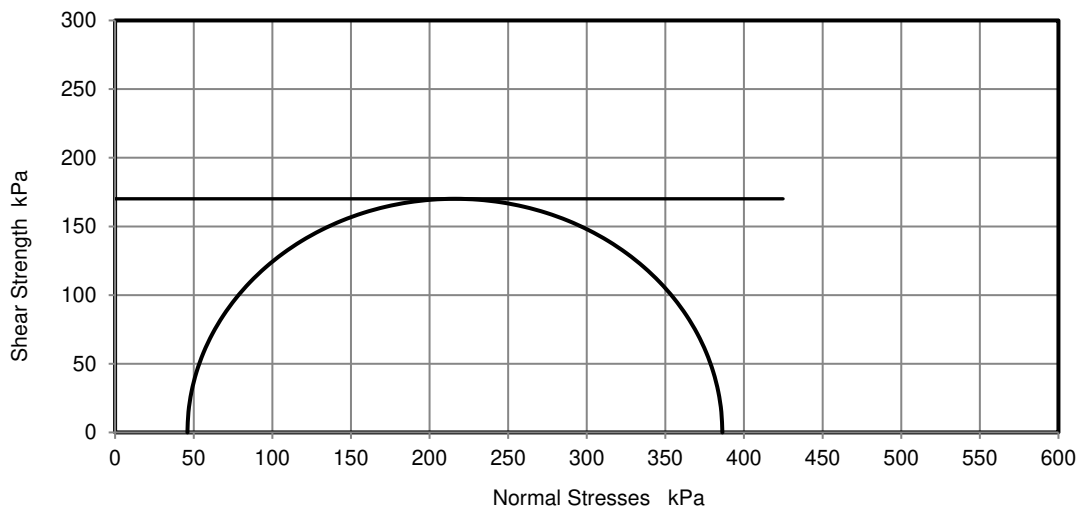
Test Number	1
Length	202.14 mm
Diameter	99.90 mm
Bulk Density	2.15 Mg/m ³
Moisture Content	21 %
Dry Density	1.77 Mg/m ³
Membrane Correction	0.85 kPa

Rate of Strain	1.98 %/min
Cell Pressure	46 kPa
Axial Strain at failure	20.0 %
Deviator Stress, (σ ₁ - σ ₃) _f	340 kPa
Undrained Shear Strength, c _u	170 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.22 mm

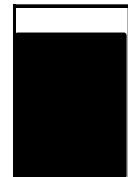
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
 PL Deputy of Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



Environmental Science

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP
 Contact: Nicola Swallow
 Site Address: Area 14, The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-17444
 Date Sampled: 15/06/2020
 Date Received: 01/07/2020
 Date Tested: 10/07/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

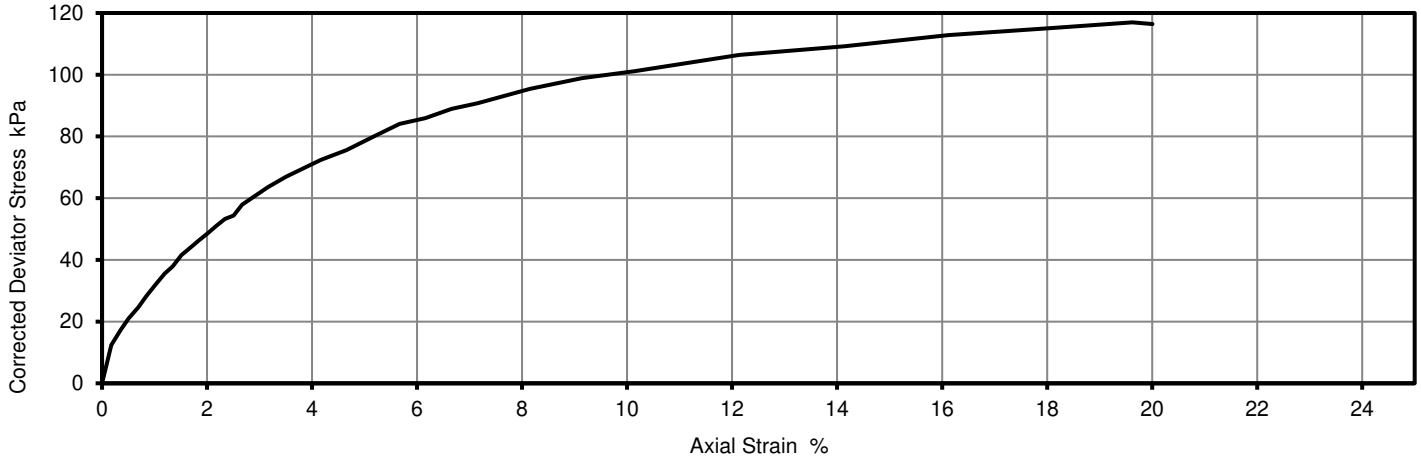
Laboratory Reference: 1551273
 Hole No.: BH14
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly CLAY

Depth Top [m]: 3.40
 Depth Base [m]: 3.85
 Sample Type: U

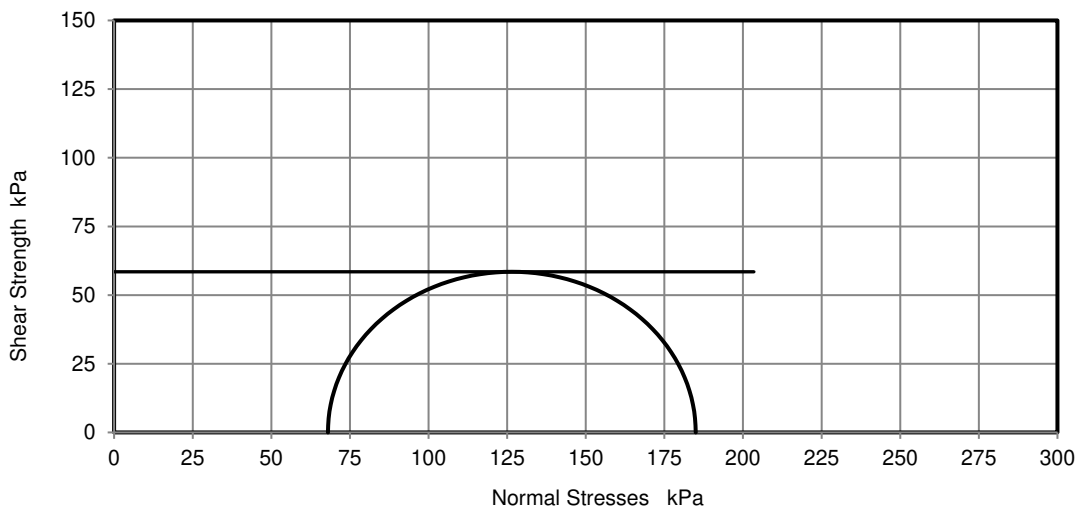
Test Number	1
Length	193.95 mm
Diameter	101.21 mm
Bulk Density	2.19 Mg/m ³
Moisture Content	16 %
Dry Density	1.88 Mg/m ³
Membrane Correction	0.93 kPa

Rate of Strain	2.00 %/min
Cell Pressure	68 kPa
Axial Strain at failure	19.6 %
Deviator Stress, (σ ₁ - σ ₃) _f	117 kPa
Undrained Shear Strength, c _u	58 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.25 mm

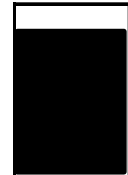
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks: Re-issue 1: Additional results of ATT test (sample 1551280)

Signed:

Szczepan Bielatowicz
 PL Deputy of Head of Geotechnical Section
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15229
Date Sampled: 11/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 15, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

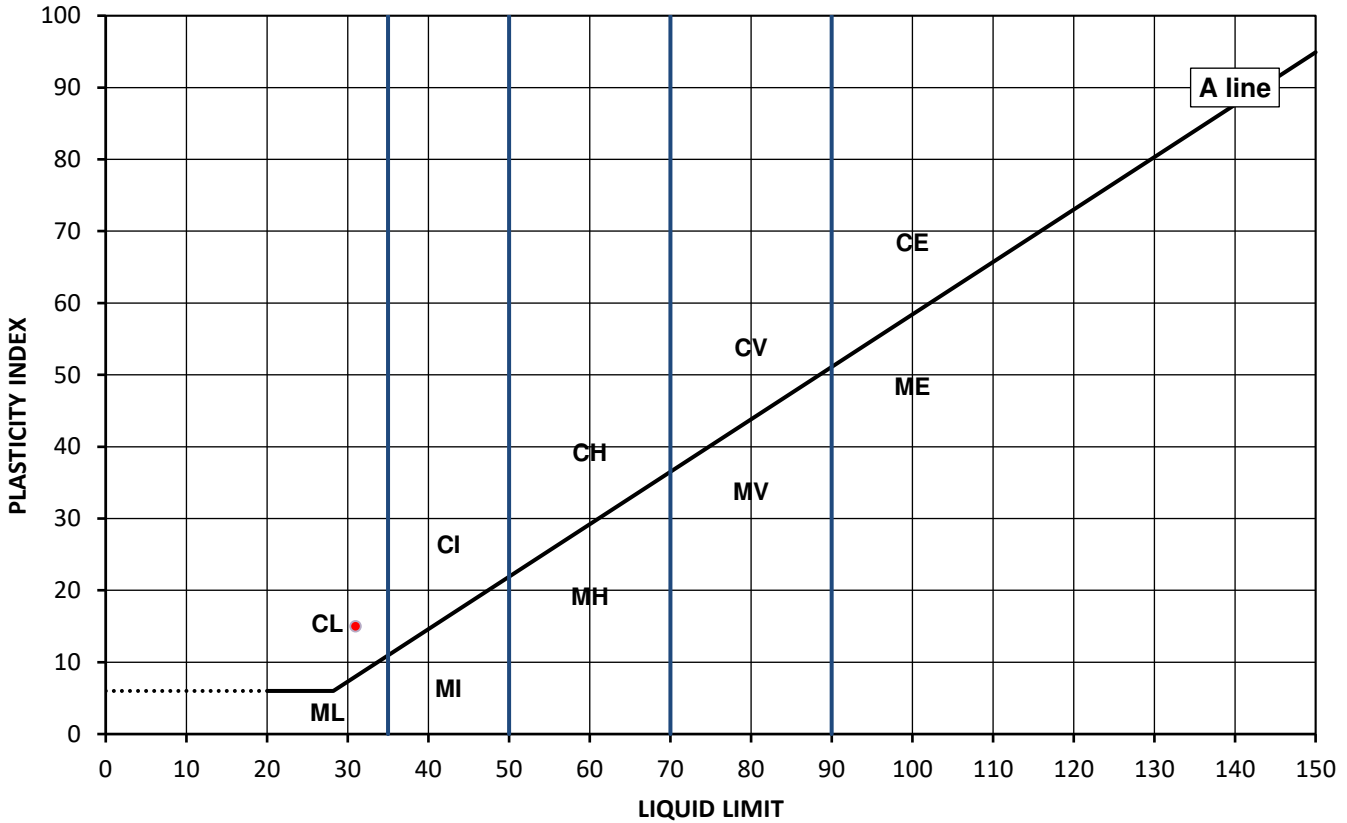
Test Results:

Laboratory Reference: 1539637
Hole No.: WS133
Sample Reference: Not Given
Soil Description: Dark brown clayey very sandy GRAVEL

Depth Top [m]: 1.30
Depth Base [m]: 1.50
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
6.9	31	16	15	20



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15229
Date Sampled: 11/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 15, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

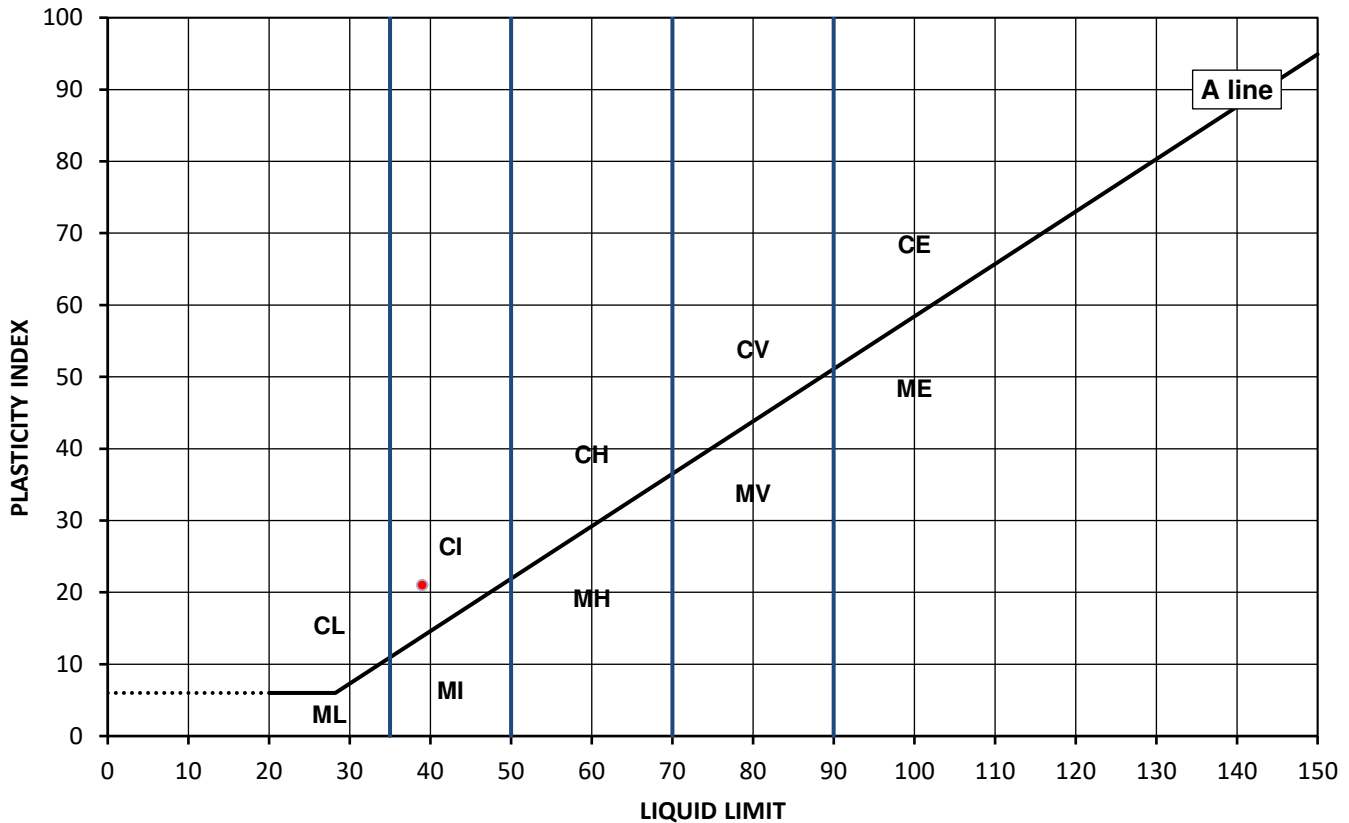
Test Results:

Laboratory Reference: 1539638
Hole No.: WS135
Sample Reference: Not Given
Soil Description: Dark brown sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	39	18	21	100



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15229
Date Sampled: 11/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 15, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

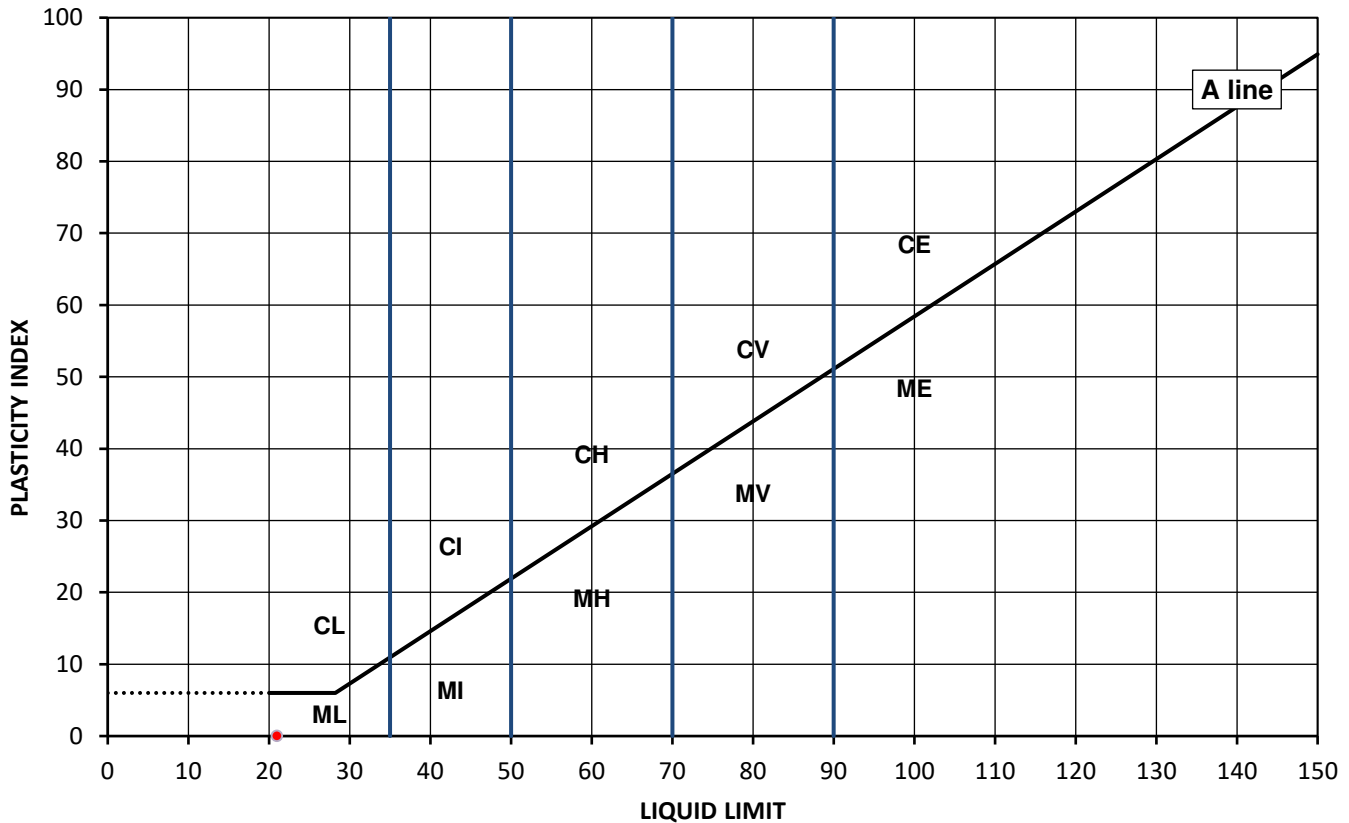
Test Results:

Laboratory Reference: 1539639
Hole No.: WS136
Sample Reference: Not Given
Soil Description: Bluish grey slightly gravelly SAND

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
13	21	NP	NP	79



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks: NP - Non plastic

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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4041

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
Site Address: Area 15, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Classification Test Results

Tested in Accordance with:

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client Reference: C4259
Job Number: 20-15229
Date Sampled: 11/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC %	WC %	Atterberg				Density			Total Porosity# %
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL %	PL %	PI %	bulk Mg/m3	dry Mg/m3	PD Mg/m3	
			m	m													
1539637	WS133	Not Given	1.30	1.50	D	Dark brown clayey very sandy GRAVEL	Atterberg 1 Point	6.9		20	31	16	15				
1539638	WS135	Not Given	2.00	2.45	D	Dark brown sandy CLAY	Atterberg 1 Point	19		100	39	18	21				
1539639	WS136	Not Given	1.20	1.65	D	Bluish grey slightly gravelly SAND	Atterberg 1 Point	13		79	21	NP	NP				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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4041

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street, Northwich, Cheshire, CW9 5LP

Contact: Nicola Swallow
Site Address: Area 16, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

SUMMARY REPORT

Summary of Moisture Content Test Results

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Client Reference: C4259
Job Number: 20-18153
Date Sampled: 26/06/2020
Date Received: 06/07/2020
Date Tested: 13/07/2020
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC											
		Reference	Depth Top m	Depth Base m	Type														
1555180	WS141	Not Given	1.20	1.65	D	Dark brown slightly gravelly slightly sandy CLAY		12											

Comments:

Signed:

Monika Janoszek
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 16, The Lanes, Penwortham

Client Reference: C4259
Job Number: 20-20606
Date Sampled: 26/06/2020
Date Received: 21/07/2020
Date Tested: 30/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

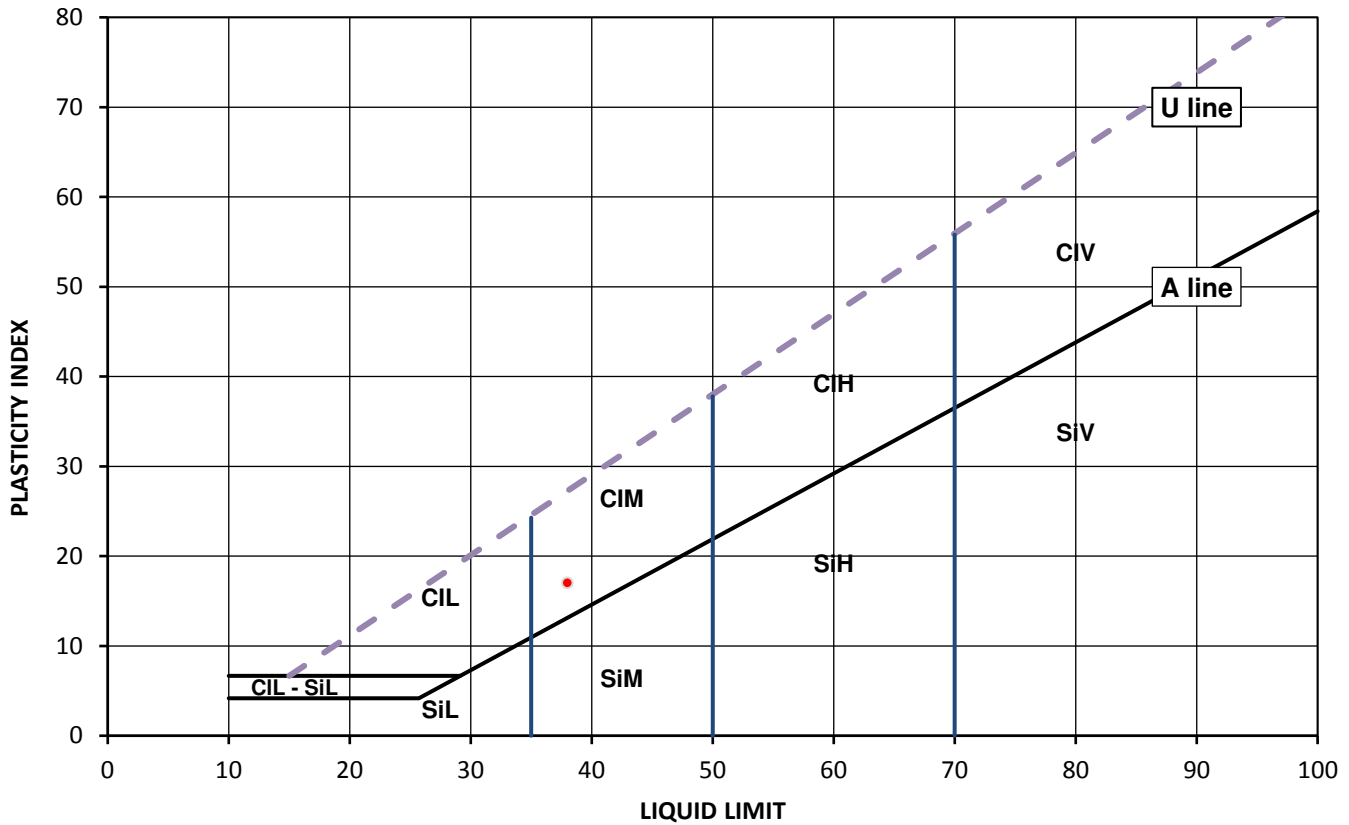
Test Results:

Laboratory Reference: 1568807
Hole No.: WS140
Sample Reference: D
Soil Description: Dark brown sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: 1.20
Sample Type: D

Sample Preparation: Tested in natural condition

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
23	38	21	17	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Cl	Clay	Plasticity	Liquid Limit
Si	Silt	L	below 35
		M	35 to 50
		H	50 to 70
		V	Very high exceeding 70
		O	Organic append to classification for organic material (eg CIHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy of Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-15235
Date Sampled: 11/06/2020
Date Received: 19/06/2020
Date Tested: 30/06/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 17, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

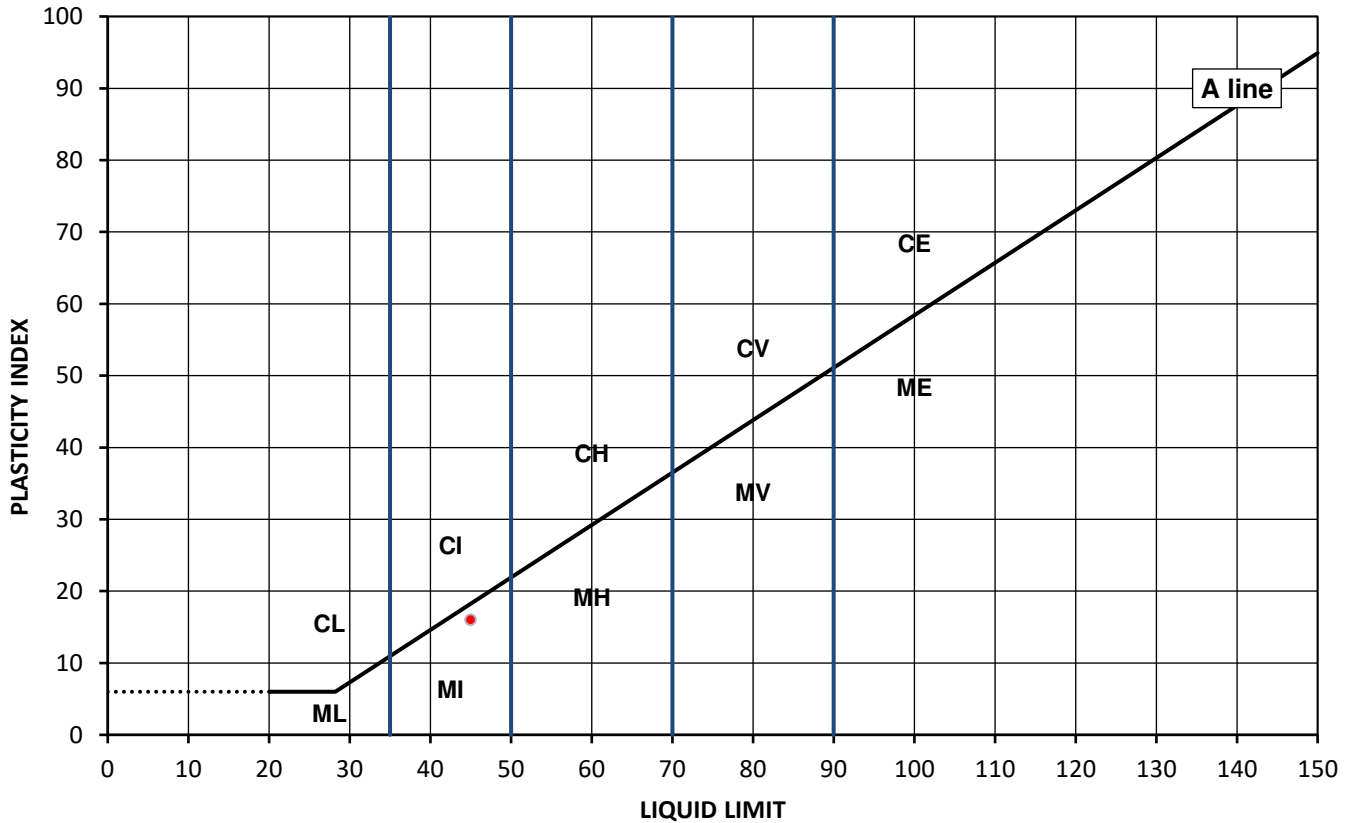
Test Results:

Laboratory Reference: 1539650
Hole No.: SA11
Sample Reference: Not Given
Soil Description: Dark brown slightly gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	45	29	16	97



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	L	Low	Liquid Limit	below 35
M	Silt	I	Medium		35 to 50
		H	High		50 to 70
		V	Very high		70 to 90
		E	Extremely high		exceeding 90

Organic

O append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-15235
 Date Sampled: 11/06/2020
 Date Received: 19/06/2020
 Date Tested: 01/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 17, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

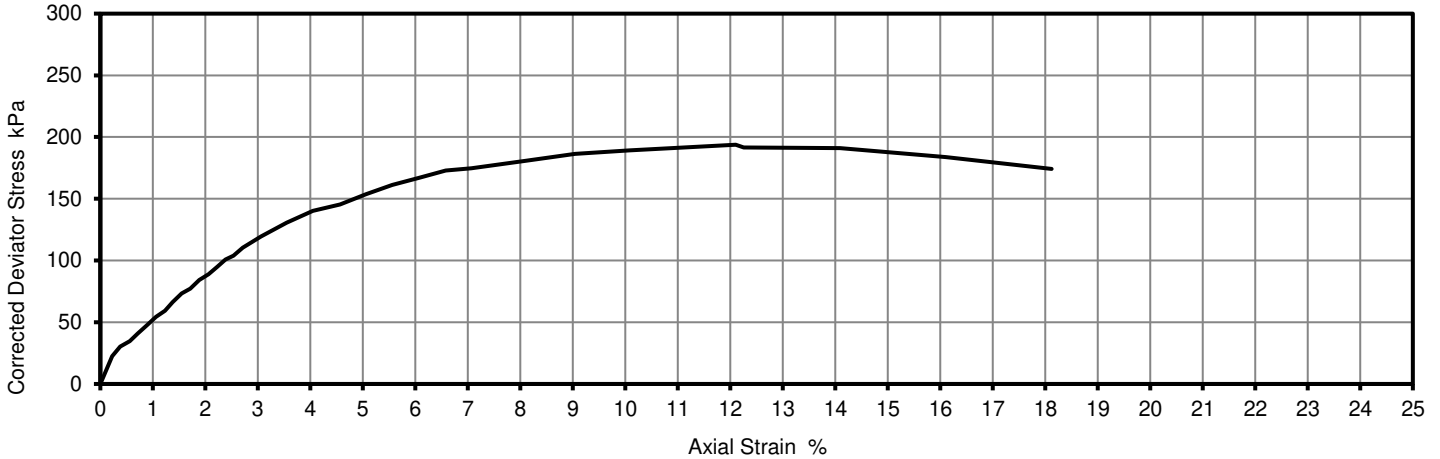
Laboratory Reference: 1539648
 Hole No.: BH17
 Sample Reference: Not Given
 Sample Description: Reddish brown CLAY

Depth Top [m]: 4.50
 Depth Base [m]: 5.00
 Sample Type: U

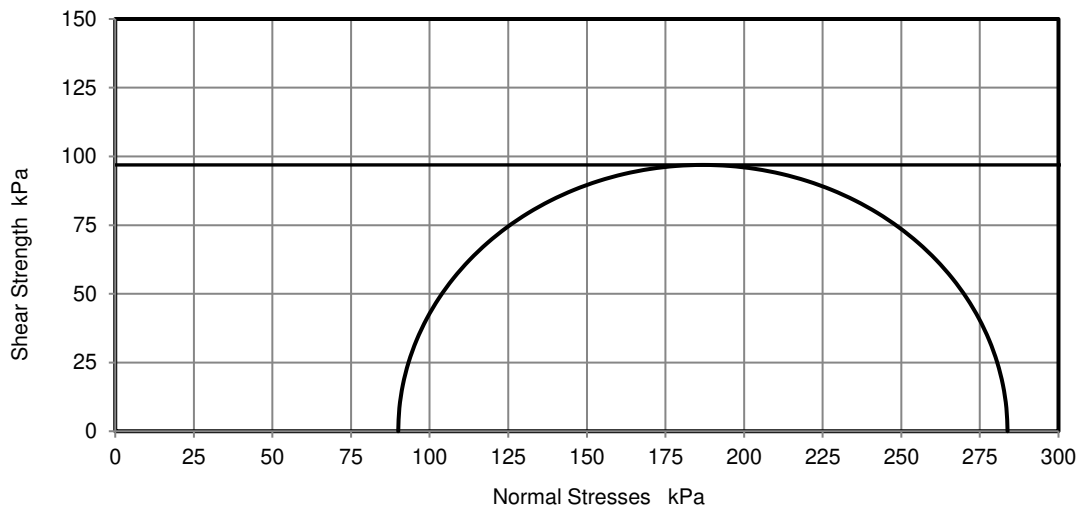
Test Number	1
Length	98.07 mm
Diameter	49.74 mm
Bulk Density	2.10 Mg/m ³
Moisture Content	27 %
Dry Density	1.66 Mg/m ³
Membrane Correction	1.19 kPa

Rate of Strain	2.00 %/min
Cell Pressure	90 kPa
Axial Strain at failure	12.1 %
Deviator Stress, (σ ₁ - σ ₃) _f	194 kPa
Undrained Shear Strength, c _u	97 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Compound
Membrane thickness	0.23 mm

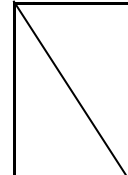
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks: Unable to determine orientation.

Signed:

Aleksandra Jurochnik
 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-15235
 Date Sampled: 11/06/2020
 Date Received: 19/06/2020
 Date Tested: 30/06/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 17, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

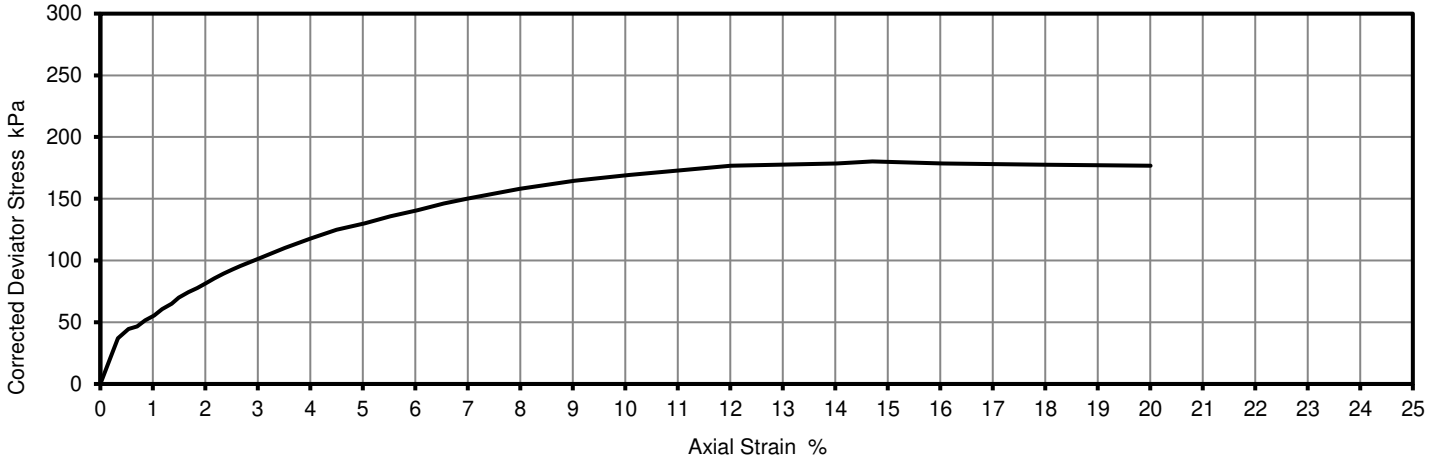
Laboratory Reference: 1539649
 Hole No.: BH17
 Sample Reference: Not Given
 Sample Description: Brown CLAY

Depth Top [m]: 8.50
 Depth Base [m]: 9.00
 Sample Type: U

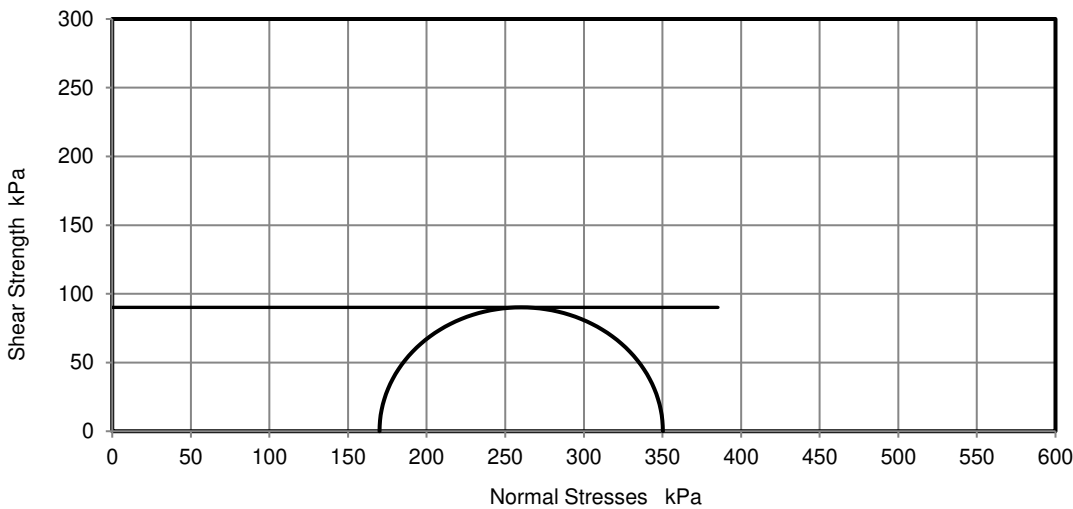
Test Number	1
Length	98.48 mm
Diameter	49.68 mm
Bulk Density	2.02 Mg/m ³
Moisture Content	26 %
Dry Density	1.60 Mg/m ³
Membrane Correction	1.50 kPa

Rate of Strain	2.00 %/min
Cell Pressure	170 kPa
Axial Strain at failure	14.7 %
Deviator Stress, (σ ₁ - σ ₃) _f	180 kPa
Undrained Shear Strength, c _u	90 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Brittle
Membrane thickness	0.25 mm

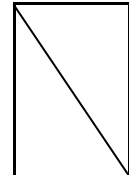
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks: Unable to determine orientation.

Signed:

Aleksandra Jurochnik
 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17487
Date Sampled: 25/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 19, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

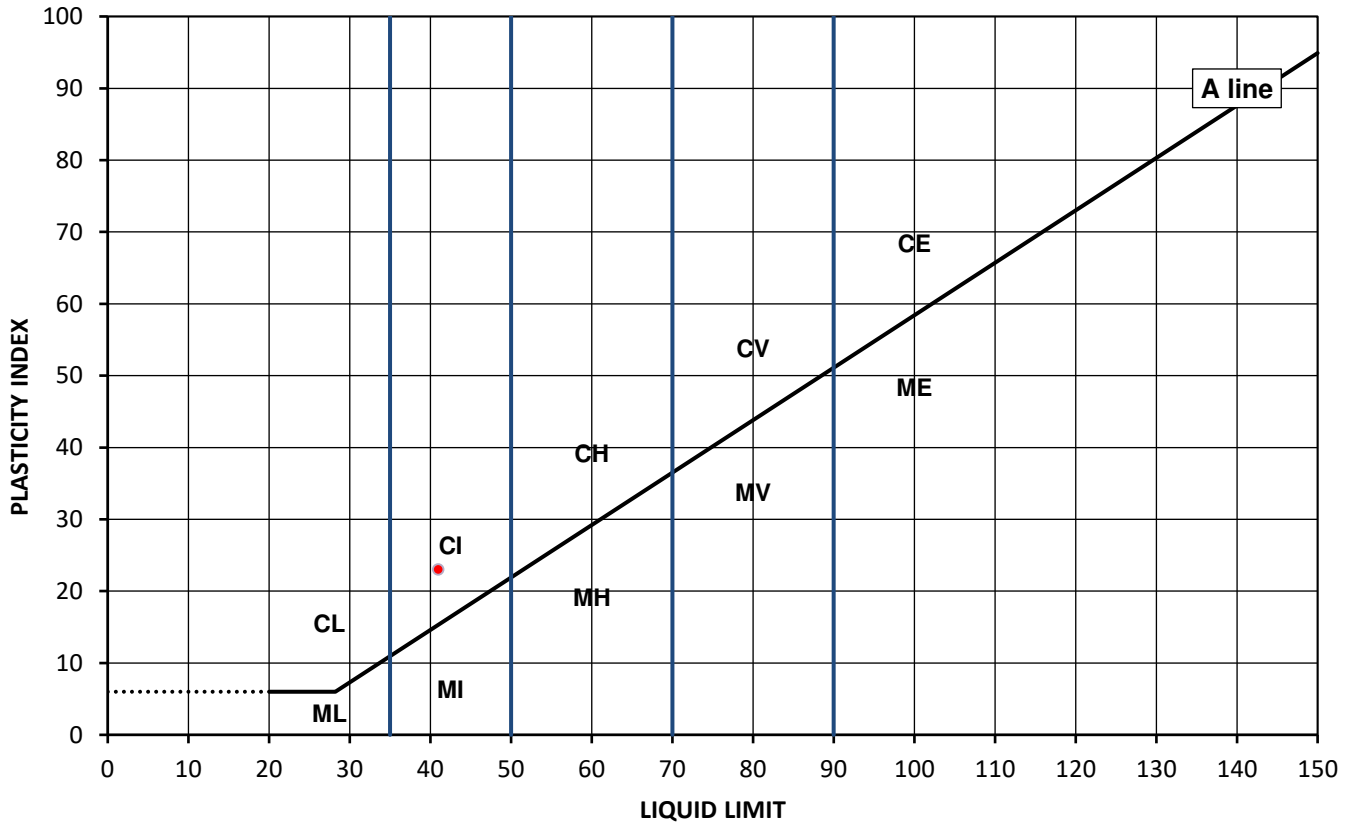
Test Results:

Laboratory Reference: 1551505
Hole No.: WS146
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
19	41	18	23	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	L	Low	Liquid Limit	below 35
M	Silt		I	Medium		35 to 50
			H	High		50 to 70
			V	Very high		70 to 90
			E	Extremely high		exceeding 90
	Organic		O	append to classification for organic material (eg CHO)		

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17487
Date Sampled: 26/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 19, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

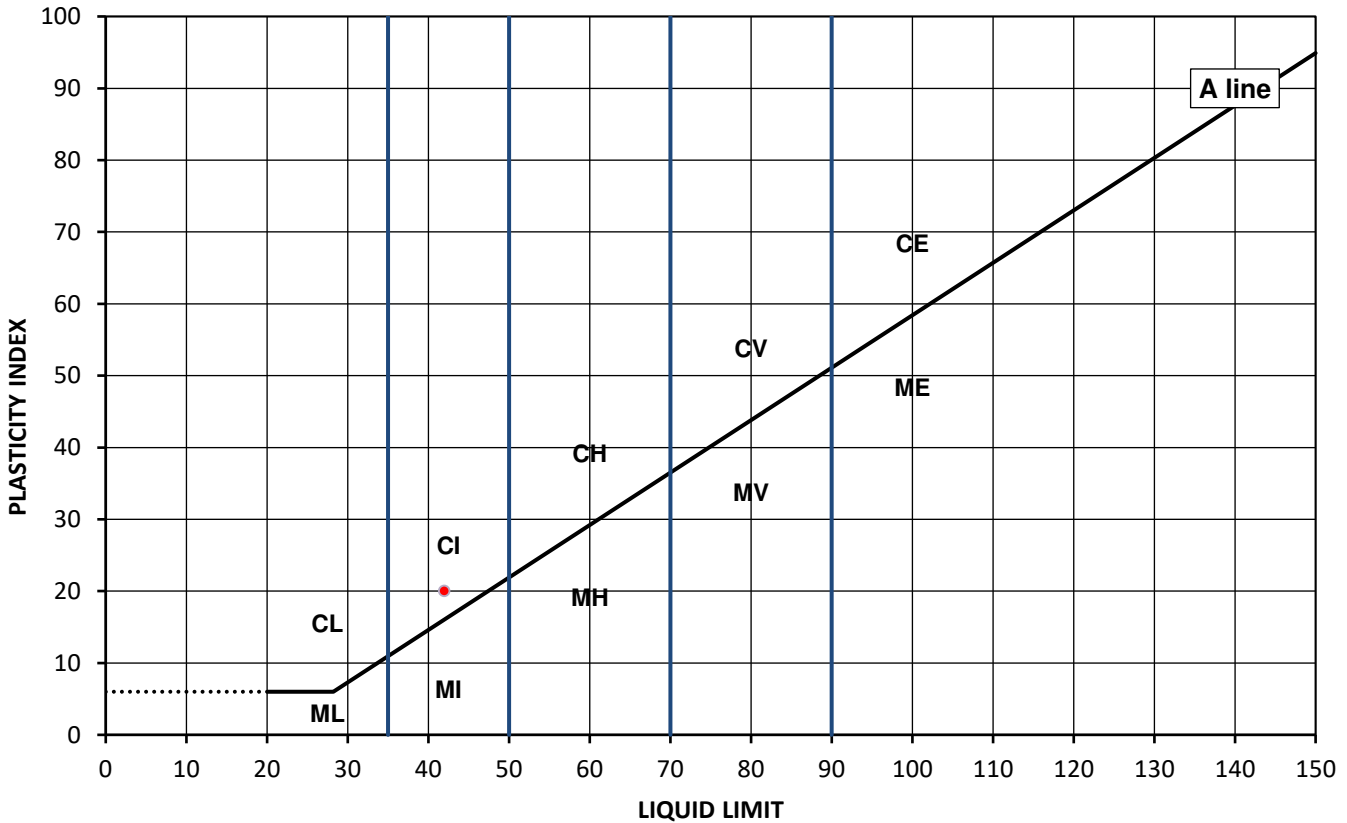
Test Results:

Laboratory Reference: 1551506
Hole No.: WS158
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
22	42	22	20	98



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low below 35
		I	Medium 35 to 50
		H	High 50 to 70
		V	Very high 70 to 90
		E	Extremely high exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 16/07/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17487
Date Sampled: 26/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 19, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

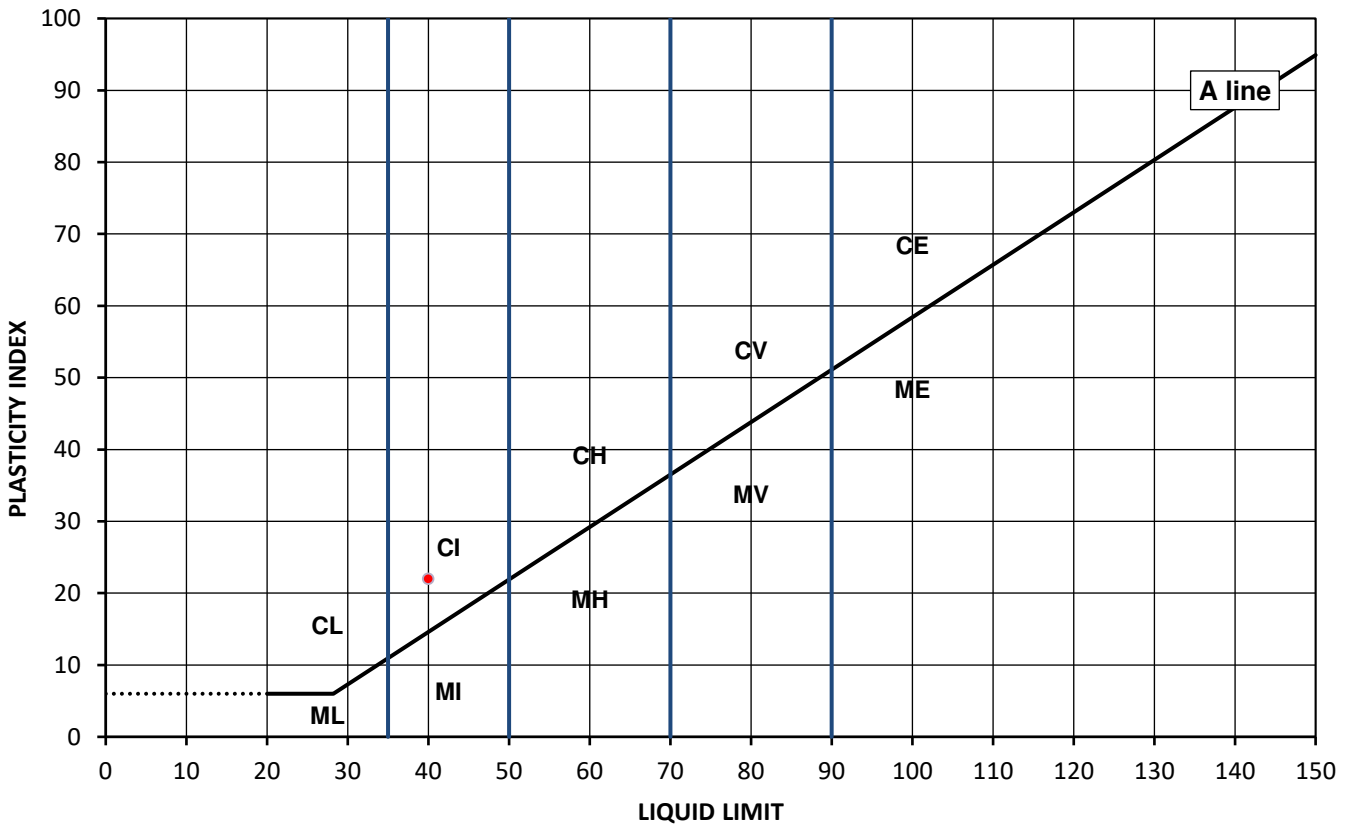
Test Results:

Laboratory Reference: 1551507
Hole No.: WS160
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: 2.45
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	40	18	22	91



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 16/07/2020

GF 232.9



TEST CERTIFICATE

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Liquid and Plastic Limits

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.4 and 5

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP

Client Reference: C4259
Job Number: 20-17487
Date Sampled: 25/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Contact: Nicola Swallow
Site Address: Area 19, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

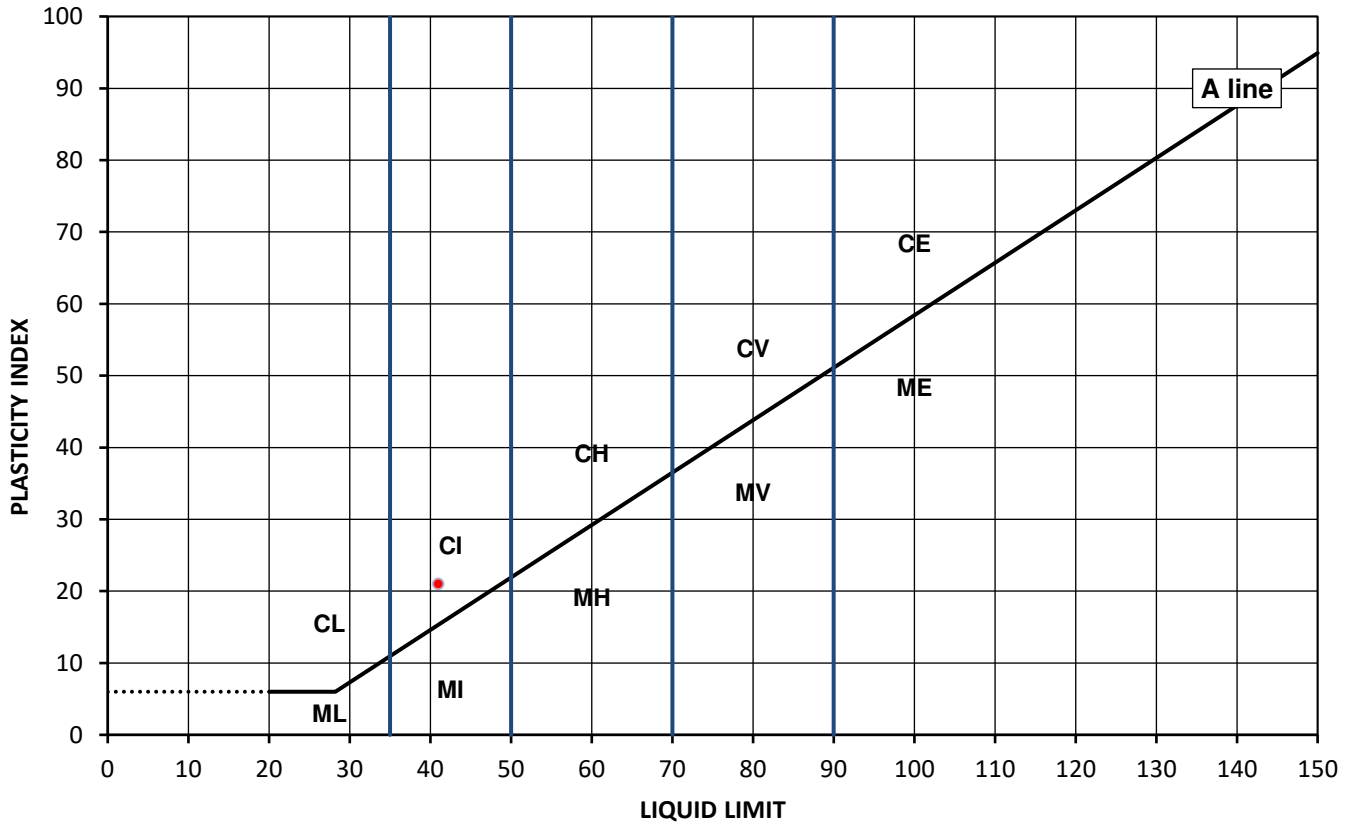
Test Results:

Laboratory Reference: 1551508
Hole No.: CP10
Sample Reference: Not Given
Soil Description: Brown slightly gravelly sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: 1.65
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
21	41	20	21	99



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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Page 1 of 1

Date Reported: 16/07/2020

GF 232.9



SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with:

Client: Brownfield Solutions Ltd
Client Address: William Smith House, 173 - 183 Witton Street,
Northwich, Cheshire,
CW9 5LP
Contact: Nicola Swallow
Site Address: Area 19, The Lanes, Penwortham

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C4259
Job Number: 20-17487
Date Sampled: 25/06 - 26/06/2020
Date Received: 01/07/2020
Date Tested: 11/07/2020
Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL	PL	PI	bulk	dry	PD	
			m	m													
1551508	CP10	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	21		99	41	20	21				
1551505	WS146	Not Given	2.00	2.45	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		99	41	18	23				
1551506	WS158	Not Given	1.20	1.65	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	22		98	42	22	20				
1551507	WS160	Not Given	2.00	2.45	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	17		91	40	18	22				

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Aleksandra Jurochnik
PL Technical Reviewer
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Client Reference: C4259
 Job Number: 20-17487
 Date Sampled: 25/06/2020
 Date Received: 01/07/2020
 Date Tested: 14/07/2020
 Sampled By: NS

Contact: Nicola Swallow
 Site Address: Area 19, The Lanes, Penwortham

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

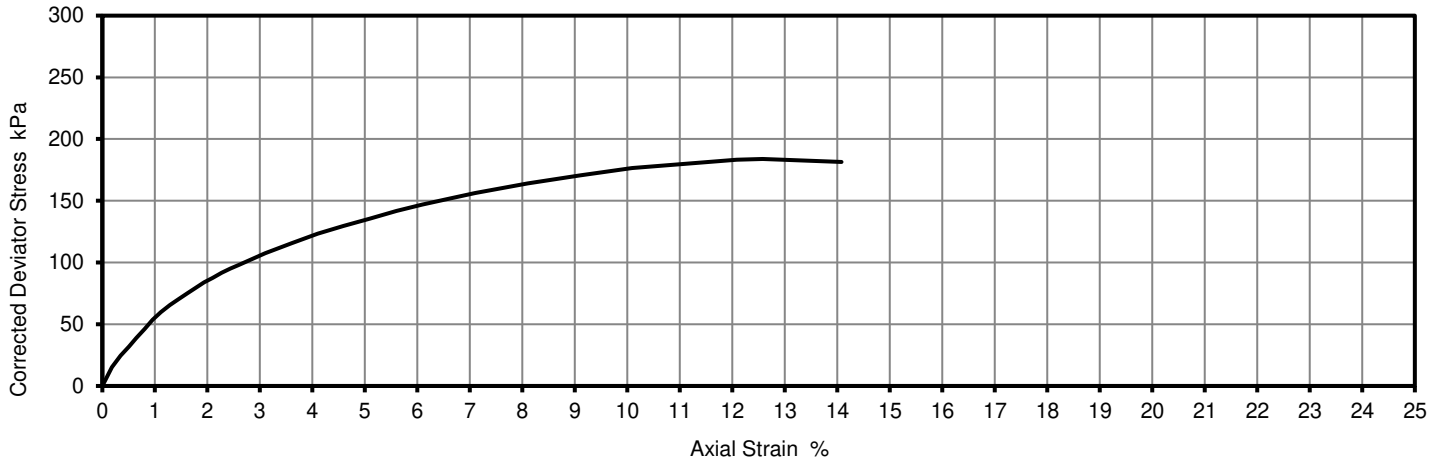
Laboratory Reference: 1551509
 Hole No.: CP10
 Sample Reference: Not Given
 Sample Description: Reddish brown CLAY

Depth Top [m]: 3.00
 Depth Base [m]: 3.45
 Sample Type: U

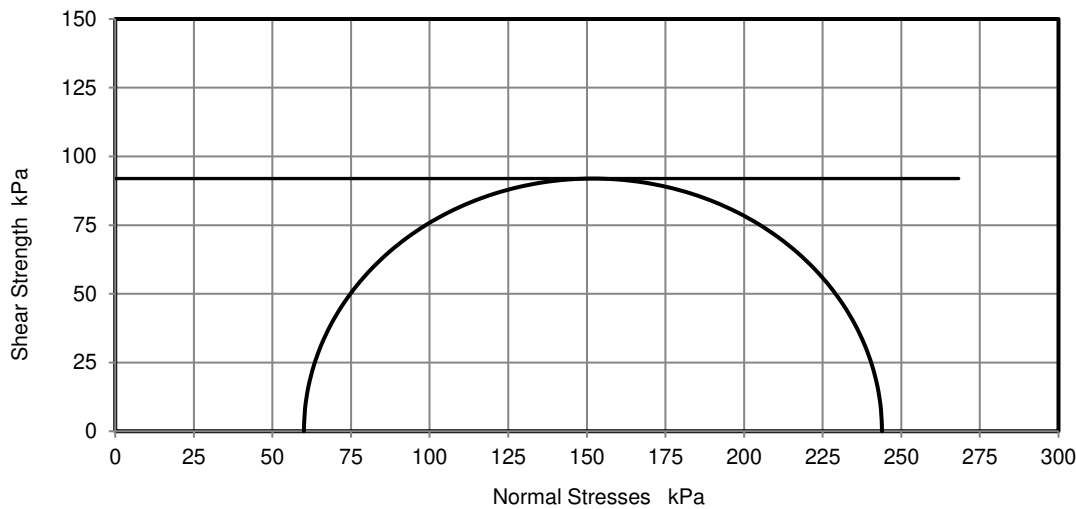
Test Number	1
Length	199.44 mm
Diameter	102.58 mm
Bulk Density	2.06 Mg/m ³
Moisture Content	21 %
Dry Density	1.70 Mg/m ³
Membrane Correction	0.62 kPa

Rate of Strain	2.00 %/min
Cell Pressure	60 kPa
Axial Strain at failure	12.6 %
Deviator Stress, (σ ₁ - σ ₃) _f	184 kPa
Undrained Shear Strength, c _u	92 kPa ½(σ ₁ - σ ₃) _f
Mode of Failure	Brittle
Membrane thickness	0.24 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Aleksandra Jurochnik
 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE
Unconsolidated Undrained
Triaxial Compression

Tested in Accordance with:
 BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
 Unit 8 Harrowden Road
 Brackmills Industrial Estate
 Northampton NN4 7EB



4041

Client: Brownfield Solutions Ltd
 Client Address: William Smith House, 173 - 183 Witton Street,
 Northwich, Cheshire,
 CW9 5LP

Contact: Nicola Swallow
 Site Address: Area 19, The Lanes, Penwortham

Client Reference: C4259
 Job Number: 20-17487
 Date Sampled: 25/06/2020
 Date Received: 01/07/2020
 Date Tested: 14/07/2020
 Sampled By: NS

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

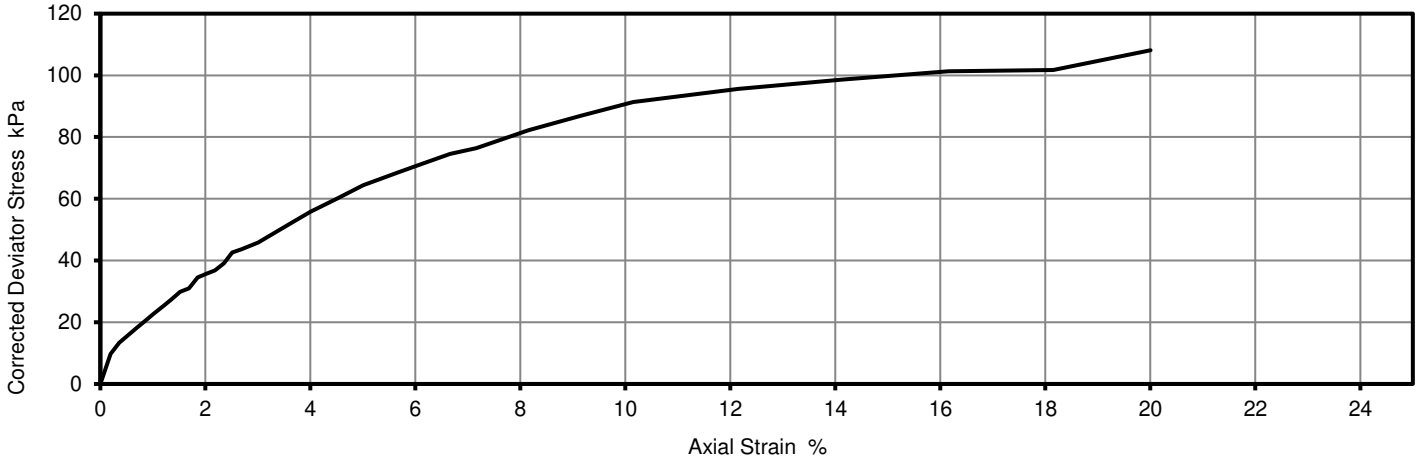
Laboratory Reference: 1551510
 Hole No.: CP10
 Sample Reference: Not Given
 Sample Description: Reddish brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 6.00
 Depth Base [m]: 6.45
 Sample Type: U

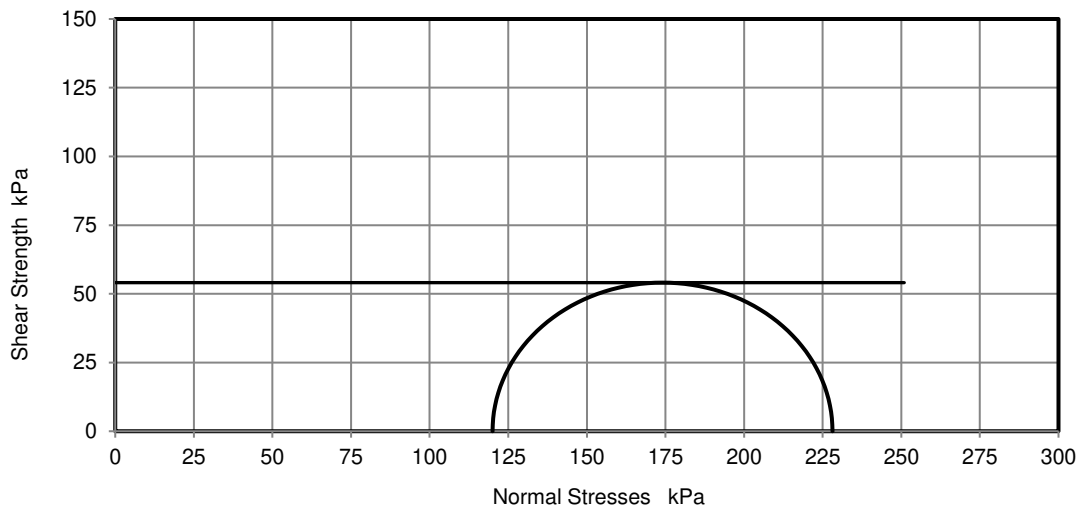
Test Number	1
Length	192.17 mm
Diameter	102.24 mm
Bulk Density	2.11 Mg/m ³
Moisture Content	14 %
Dry Density	1.85 Mg/m ³
Membrane Correction	1.02 kPa

Rate of Strain	2.00 %/min
Cell Pressure	120 kPa
Axial Strain at failure	20.0 %
Deviator Stress, ($\sigma_1 - \sigma_3$) _f	108 kPa
Undrained Shear Strength, c_u	54 kPa $\frac{1}{2}(\sigma_1 - \sigma_3)_f$
Mode of Failure	Compound
Membrane thickness	0.27 mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Aleksandra Jurochnik
 PL Technical Reviewer
 for and on behalf of i2 Analytical Ltd

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Nicola Swallow

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173 - 183 Witton Street
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i2 Analytical Ltd.
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WD18 8YS

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f: 01923 237404

e: reception@i2analytical.com

e: n.swallow@brownfield-solutions.co.uk

Analytical Report Number : 20-17589

Project / Site name:	Area 14, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	02/07/2020
Your order number:		Analysis completed by:	16/07/2020
Report Issue Number:	1	Report issued on:	16/07/2020
Samples Analysed:	2 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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



Analytical Report Number: 20-17589

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1552089	1552090			
Sample Reference				WS129	WS132			
Sample Number				None Supplied	None Supplied			
Depth (m)				2.00-2.45	1.20-1.65			
Date Sampled				16/06/2020	16/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	11	14			
Total mass of sample received	kg	0.001	NONE	0.50	0.50			

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.0	8.2			
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.041	0.034			



Analytical Report Number : 20-17589

Project / Site name: Area 14, The Lanes, Penwortham

* 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 *
1552089	WS129	None Supplied	2.00-2.45	Brown clay with vegetation.
1552090	WS132	None Supplied	1.20-1.65	Brown clay.



Analytical Report Number : 20-17589

Project / Site name: Area 14, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



Nicola Swallow

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William Smith House
173 - 183 Witton Street
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7 Woodshots Meadow,
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Watford,
Herts,
WD18 8YS

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f: 01923 237404

e: reception@i2analytical.com

e: n.swallow@brownfield-solutions.co.uk

Analytical Report Number : 20-18150

Project / Site name:	Area 1, The Lanes, Penwortham	Samples received on:	06/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	06/07/2020
Your order number:		Analysis completed by:	17/07/2020
Report Issue Number:	1	Report issued on:	20/07/2020
Samples Analysed:	4 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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



Analytical Report Number: 20-18150

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number	1555171	1555172	1555173	1555174				
Sample Reference	WS03	WS06	WS09	TP17				
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied				
Depth (m)	1.20-1.65	3.00-3.45	2.00-2.45	1.50				
Date Sampled	22/06/2020	23/06/2020	22/06/2020	29/06/2020				
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	11	19	16	19	
Total mass of sample received	kg	0.001	NONE	0.30	0.10	0.10	0.15	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	8.2	8.2	8.1	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.020	0.070	0.032	0.067	



Analytical Report Number : 20-18150

Project / Site name: Area 1, The Lanes, Penwortham

* 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 *
1555171	WS03	None Supplied	1.20-1.65	Brown clay.
1555172	WS06	None Supplied	3.00-3.45	Brown clay.
1555173	WS09	None Supplied	2.00-2.45	Brown clay.
1555174	TP17	None Supplied	1.50	Brown clay.



Analytical Report Number : 20-18150

Project / Site name: Area 1, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-18216

Project / Site name:	Area 2, The Lanes, Penwortham	Samples received on:	06/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	06/07/2020
Your order number:		Analysis completed by:	17/07/2020
Report Issue Number:	1	Report issued on:	17/07/2020
Samples Analysed:	4 soil samples		

Signed:

Will Fardon

Technical Reviewer (CS 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

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Analytical Report Number: 20-18216

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number	1555472	1555473	1555474	1555475				
Sample Reference	WS16	WS27	TP28	TP39				
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied				
Depth (m)	0.90-1.00	1.20-1.65	1.00	1.50				
Date Sampled	18/06/2020	17/06/2020	25/06/2020	25/06/2020				
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	11	12	14	14	
Total mass of sample received	kg	0.001	NONE	0.15	0.15	0.15	0.15	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.5	8.2	8.0	8.0	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0084	0.023	0.0077	0.061	



Analytical Report Number : 20-18216

Project / Site name: Area 2, The Lanes, Penwortham

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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 *
1555472	WS16	None Supplied	0.90-1.00	Brown clay and sand.
1555473	WS27	None Supplied	1.20-1.65	Brown clay.
1555474	TP28	None Supplied	1.00	Brown clay.
1555475	TP39	None Supplied	1.50	Brown clay.



Analytical Report Number : 20-18216

Project / Site name: Area 2, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-14048

Project / Site name:	Area 7 The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	1 soil sample		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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Analytical Report Number: 20-14048

Project / Site name: Area 7 The Lanes, Penwortham

Lab Sample Number				1533312				
Sample Reference				TP69				
Sample Number				None Supplied				
Depth (m)				1.00				
Date Sampled				03/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	12				
Total mass of sample received	kg	0.001	NONE	0.60				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.011				



Analytical Report Number : 20-14048

Project / Site name: Area 7 The Lanes, Penwortham

* 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 *
1533312	TP69	None Supplied	1.00	Brown clay.



Analytical Report Number : 20-14048

Project / Site name: Area 7 The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-14057

Project / Site name:	Area 10 The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	2 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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Analytical Report Number: 20-14057

Project / Site name: Area 10 The Lanes, Penwortham

Lab Sample Number				1533340	1533341			
Sample Reference				WS78	TP99			
Sample Number				None Supplied	None Supplied			
Depth (m)				2.00-2.45	1.00-1.20			
Date Sampled				08/06/2020	08/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	18	15			
Total mass of sample received	kg	0.001	NONE	0.50	0.80			

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	8.4			
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.15	0.032			



Analytical Report Number : 20-14057

Project / Site name: Area 10 The Lanes, Penwortham

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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 *
1533340	WS78	None Supplied	2.00-2.45	Grey clay.
1533341	TP99	None Supplied	1.00-1.20	Brown clay.



Analytical Report Number : 20-14057

Project / Site name: Area 10 The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-14073

Project / Site name:	Area 12 The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	1 soil sample		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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Analytical Report Number: 20-14073

Project / Site name: Area 12 The Lanes, Penwortham

Lab Sample Number				1533412				
Sample Reference				WS100				
Sample Number				None Supplied				
Depth (m)				0.80-1.00				
Date Sampled				08/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	16				
Total mass of sample received	kg	0.001	NONE	0.50				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.024				



Analytical Report Number : 20-14073

Project / Site name: Area 12 The Lanes, Penwortham

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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 *
1533412	WS100	None Supplied	0.80-1.00	Brown sand.



Analytical Report Number : 20-14073

Project / Site name: Area 12 The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-14198

Project / Site name:	Area 9 The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	1 soil sample		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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Analytical Report Number: 20-14198

Project / Site name: Area 9 The Lanes, Penwortham

Lab Sample Number				1533999				
Sample Reference				BH10				
Sample Number				None Supplied				
Depth (m)				1.20-1.65				
Date Sampled				08/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	14				
Total mass of sample received	kg	0.001	NONE	0.50				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.076				



Analytical Report Number : 20-14198

Project / Site name: Area 9 The Lanes, Penwortham

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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 *
1533999	BH10	None Supplied	1.20-1.65	Grey clay.



Analytical Report Number : 20-14198

Project / Site name: Area 9 The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.

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Analytical Report Number : 20-15189

Project / Site name:	Area 8, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1028	Analysis completed by:	02/07/2020
Report Issue Number:	1	Report issued on:	02/07/2020
Samples Analysed:	4 soil samples		

Signed:

Joanna Wawrzeczko
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

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Iss No 20-15189-1 Area 8, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 4



Analytical Report Number: 20-15189

Project / Site name: Area 8, The Lanes, Penwortham

Your Order No: 1028

Lab Sample Number	1539529	1539530	1539531	1539532				
Sample Reference	CP05	WS58	TP86	TP90				
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied				
Depth (m)	5.00-5.45	0.50	1.00	1.00				
Date Sampled	16/06/2020	08/06/2020	12/06/2020	11/06/2020				
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	12	22	9.7	14	
Total mass of sample received	kg	0.001	NONE	0.50	0.50	0.50	0.50	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	7.4	7.6	8.0	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.093	0.023	0.017	0.020	



Analytical Report Number : 20-15189

Project / Site name: Area 8, The Lanes, Penwortham

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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 *
1539529	CP05	None Supplied	5.00-5.45	Brown clay.
1539530	WS58	None Supplied	0.50	Brown clay.
1539531	TP86	None Supplied	1.00	Brown clay.
1539532	TP90	None Supplied	1.00	Brown clay.



Analytical Report Number : 20-15189

Project / Site name: Area 8, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.

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Analytical Report Number : 20-15210

Project / Site name:	Area 11, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1030	Analysis completed by:	02/07/2020
Report Issue Number:	1	Report issued on:	02/07/2020
Samples Analysed:	4 soil samples		

Signed: _____

Rachel Bradley

Deputy Quality Manager

For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Iss No 20-15210-1 Area 11, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 4



Analytical Report Number: 20-15210

Project / Site name: Area 11, The Lanes, Penwortham

Your Order No: 1030

Lab Sample Number				1539590	1539591	1539592	1539593	
Sample Reference				CP06	WS89	TP115	TP125	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				6.00-6.45	3.00-3.45	1.00	2.00	
Date Sampled				15/06/2020	09/06/2020	10/06/2020	09/06/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	13	10	14	12	
Total mass of sample received	kg	0.001	NONE	0.50	0.50	0.50	0.50	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	8.2	7.1	8.1	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.072	0.039	0.015	0.10	



Analytical Report Number : 20-15210

Project / Site name: Area 11, The Lanes, Penwortham

* 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 *
1539590	CP06	None Supplied	6.00-6.45	Brown clay.
1539591	WS89	None Supplied	3.00-3.45	Brown clay.
1539592	TP115	None Supplied	1.00	Brown clay.
1539593	TP125	None Supplied	2.00	Brown clay with gravel.



Analytical Report Number : 20-15210

Project / Site name: Area 11, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-15228

Project / Site name:	Area 5, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:		Analysis completed by:	03/07/2020
Report Issue Number:	1	Report issued on:	06/07/2020
Samples Analysed:	1 soil sample		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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Analytical Report Number: 20-15228

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number				1539636				
Sample Reference				WS52				
Sample Number				None Supplied				
Depth (m)				0.50				
Date Sampled				17/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	4.8				
Total mass of sample received	kg	0.001	NONE	0.10				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.8				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0086				



Analytical Report Number : 20-15228

Project / Site name: Area 5, The Lanes, Penwortham

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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 *
1539636	W552	None Supplied	0.50	Brown loam and clay with gravel and vegetation.



Analytical Report Number : 20-15228

Project / Site name: Area 5, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-15230

Project / Site name:	Area 15, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1033	Analysis completed by:	02/07/2020
Report Issue Number:	1	Report issued on:	02/07/2020
Samples Analysed:	1 soil samples		

Signed: _____

Rachel Bradley

Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

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

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

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

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4041



MCERTS



Analytical Report Number: 20-15230

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1033

Lab Sample Number				1539640				
Sample Reference				WS133				
Sample Number				None Supplied				
Depth (m)				1.30-1.50				
Date Sampled				11/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	4.4				
Total mass of sample received	kg	0.001	NONE	0.50				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.3				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.025				



Analytical Report Number : 20-15230

Project / Site name: Area 15, The Lanes, Penwortham

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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 *
1539640	WS133	None Supplied	1.30-1.50	Brown clay with gravel.



4041



Analytical Report Number : 20-15230

Project / Site name: Area 15, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-15233

Project / Site name:	Area 6, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1026	Analysis completed by:	02/07/2020
Report Issue Number:	1	Report issued on:	02/07/2020
Samples Analysed:	1 soil sample		

Signed:

Joanna Wawrzeczko
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

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Analytical Report Number: 20-15233

Project / Site name: Area 6, The Lanes, Penwortham

Your Order No: 1026

Lab Sample Number				1539646				
Sample Reference				WS53				
Sample Number				None Supplied				
Depth (m)				1.20-1.75				
Date Sampled				15/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	13				
Total mass of sample received	kg	0.001	NONE	0.60				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.3				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.051				



Analytical Report Number : 20-15233

Project / Site name: Area 6, The Lanes, Penwortham

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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 *
1539646	WS53	None Supplied	1.20-1.75	Brown clay.



Analytical Report Number : 20-15233

Project / Site name: Area 6, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-17244

Project / Site name:	Area 13, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	01/07/2020
Your order number:		Analysis completed by:	13/07/2020
Report Issue Number:	1	Report issued on:	13/07/2020
Samples Analysed:	15 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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Analytical Report Number: 20-17244

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1550083	1550084	1550085	1550086	1550087			
Sample Reference	TP142	SA06	TP133	WS105	WS109			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	1.00	0.50	0.50	1.20-1.65	2.00-2.45			
Date Sampled	18/06/2020	17/06/2020	17/06/2020	12/06/2020	12/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	19	11	14	13	18
Total mass of sample received	kg	0.001	NONE	0.50	0.50	0.50	0.50	0.50

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9	7.4	8.1	8.3	8.2
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.10	0.0097	0.0081	0.024	0.024



Analytical Report Number: 20-17244

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1550088	1550089			
Sample Reference				WS117	WS122			
Sample Number				None Supplied	None Supplied			
Depth (m)				1.20-1.65	2.00-2.45			
Date Sampled				15/06/2020	15/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	12	14			
Total mass of sample received	kg	0.001	NONE	0.50	0.50			

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	8.3			
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.061	0.099			



Analytical Report Number : 20-17244

Project / Site name: Area 13, The Lanes, Penwortham

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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 *
1550083	TP142	None Supplied	1.00	Brown clay and sand.
1550084	SA06	None Supplied	0.50	Brown clay.
1550085	TP133	None Supplied	0.50	Brown clay.
1550086	WS105	None Supplied	1.20-1.65	Brown clay.
1550087	WS109	None Supplied	2.00-2.45	Brown clay.
1550088	WS117	None Supplied	1.20-1.65	Brown clay.
1550089	WS122	None Supplied	2.00-2.45	Brown clay.



Analytical Report Number : 20-17244

Project / Site name: Area 13, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-17584

Project / Site name:	Area 4, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	02/07/2020
Your order number:		Analysis completed by:	16/07/2020
Report Issue Number:	1	Report issued on:	16/07/2020
Samples Analysed:	4 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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Analytical Report Number: 20-17584

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1552066	1552067	1552068	1552069	
Sample Reference				WS36	WS47	TP52	TP54	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				1.20-1.65	2.00-2.45	1.50-1.60	2.00	
Date Sampled				19/06/2020	19/06/2020	25/06/2020	26/06/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	12	18	14	15	
Total mass of sample received	kg	0.001	NONE	0.50	0.50	0.50	0.50	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	8.1	8.2	8.1	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.022	0.086	0.013	0.13	



Analytical Report Number : 20-17584

Project / Site name: Area 4, The Lanes, Penwortham

* 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 *
1552066	WS36	None Supplied	1.20-1.65	Brown clay with vegetation.
1552067	WS47	None Supplied	2.00-2.45	Brown clay.
1552068	TP52	None Supplied	1.50-1.60	Brown clay with vegetation and gravel
1552069	TP54	None Supplied	2.00	Brown clay.



Analytical Report Number : 20-17584

Project / Site name: Area 4, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-17585

Project / Site name:	Area 19, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	02/07/2020
Your order number:		Analysis completed by:	16/07/2020
Report Issue Number:	1	Report issued on:	16/07/2020
Samples Analysed:	1 soil sample		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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



Analytical Report Number: 20-17585

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number				1552070				
Sample Reference				CP10				
Sample Number				None Supplied				
Depth (m)				1.20-1.65				
Date Sampled				25/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	12				
Total mass of sample received	kg	0.001	NONE	0.50				

General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.1				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.048				



Analytical Report Number : 20-17585

Project / Site name: Area 19, The Lanes, Penwortham

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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 *
1552070	CP10	None Supplied	1.20-1.65	Brown clay.



Analytical Report Number : 20-17585

Project / Site name: Area 19, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.



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Analytical Report Number : 20-17586

Project / Site name:	Area 3, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	02/07/2020
Your order number:		Analysis completed by:	16/07/2020
Report Issue Number:	1	Report issued on:	16/07/2020
Samples Analysed:	1 soil sample		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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Analytical Report Number: 20-17586

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1552071				
Sample Reference				HP171				
Sample Number				None Supplied				
Depth (m)				0.60-0.70				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	16				
Total mass of sample received	kg	0.001	NONE	0.50				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.3				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.015				



Analytical Report Number : 20-17586

Project / Site name: Area 3, The Lanes, Penwortham

* 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 *
1552071	HP171	None Supplied	0.60-0.70	Brown clay.



Analytical Report Number : 20-17586

Project / Site name: Area 3, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

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.

APPENDIX D

Chemical Testing Results



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Analytical Report Number : 20-14148

Project / Site name:	Area 12, The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	18/06/2020
Report Issue Number:	1	Report issued on:	18/06/2020
Samples Analysed:	2 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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Analytical Report Number: 20-14148

Project / Site name: Area 12, The Lanes, Penwortham

Lab Sample Number				1533756	1533757			
Sample Reference				WS99	WS100			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.60	0.00-0.30			
Date Sampled				08/06/2020	08/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	9.8	7.1			
Total mass of sample received	kg	0.001	NONE	1.1	1.1			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.2	6.4			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	12			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	32	38			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	38			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21	27			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	39	42			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	0.5			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	26	31			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	2.1			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	70	66			

Analytical Report Number: 20-14148

Project / Site name: Area 12, The Lanes, Penwortham

Lab Sample Number				1533756	1533757		
Sample Reference				WS99	WS100		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.00-0.60	0.00-0.30		
Date Sampled				08/06/2020	08/06/2020		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				

SVOCs

Aniline	mg/kg	0.1	NONE	< 0.1	-		
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-		
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-		
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-		
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-		
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-		
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-		
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-		
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-		
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-		
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-		
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-		
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-		
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-		
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-		
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-		
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-		
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-		
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-		
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-		
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-		
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-		
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-		
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-		
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-		
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-		
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-		
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-		
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-		
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	-		



Analytical Report Number: 20-14148

Project / Site name: Area 12, The Lanes, Penwortham

Lab Sample Number				1533756	1533757			
Sample Reference				WS99	WS100			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.60	0.00-0.30			
Date Sampled				08/06/2020	08/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	ND	-			
SVOC % Match	%	N/A	NONE	0	-			



Analytical Report Number : 20-14148

Project / Site name: Area 12, The Lanes, Penwortham

* 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 *
1533756	WS99	None Supplied	0.00-0.60	Brown loam and clay with gravel and vegetation.
1533757	WS100	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-14148

Project / Site name: Area 12, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-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
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.



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Analytical Report Number : 20-21763

Project / Site name:	Area 16, the Lanes, Penwortham	Samples received on:	29/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	29/07/2020
Your order number:		Analysis completed by:	31/07/2020
Report Issue Number:	1	Report issued on:	31/07/2020
Samples Analysed:	2 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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

Analytical Report Number: 20-21763

Project / Site name: Area 16, the Lanes, Penwortham

Lab Sample Number				1575588	1575589		
Sample Reference				WS108	WS141		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.00-0.27	0.04-0.34		
Date Sampled				25/06/2020	26/06/2020		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1		
Moisture Content	%	N/A	NONE	26	23		
Total mass of sample received	kg	0.001	NONE	0.90	0.90		

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected		
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.7	7.2		
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	39		
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.020		
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	19.5		
Organic Matter	%	0.1	MCERTS	-	13		

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	-	0.91		
Anthracene	mg/kg	0.05	MCERTS	-	0.32		
Fluoranthene	mg/kg	0.05	MCERTS	-	3.1		
Pyrene	mg/kg	0.05	MCERTS	-	3.0		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	1.7		
Chrysene	mg/kg	0.05	MCERTS	-	1.3		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	1.6		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.94		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.7		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	1.1		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	0.29		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	1.3		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	17.2		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	21	13		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.5		
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2		
Chromium (III)	mg/kg	1	NONE	38	27		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	38	27		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	50	68		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	93	93		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	1.3		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34	35		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	170		



Analytical Report Number: 20-21763

Project / Site name: Area 16, the Lanes, Penwortham

Lab Sample Number				1575588	1575589		
Sample Reference				WS108	WS141		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.00-0.27	0.04-0.34		
Date Sampled				25/06/2020	26/06/2020		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				

SVOCs

Aniline	mg/kg	0.1	NONE	< 0.1	-		
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-		
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-		
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-		
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-		
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-		
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-		
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-		
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-		
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-		
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-		
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-		
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-		
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-		
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-		
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-		
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-		
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-		
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-		
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-		
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-		
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-		
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-		
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-		
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-		
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-		
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-		
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-		
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-		
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	-		



Analytical Report Number: 20-21763

Project / Site name: Area 16, the Lanes, Penwortham

Lab Sample Number				1575588	1575589			
Sample Reference				WS108	WS141			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.27	0.04-0.34			
Date Sampled				25/06/2020	26/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	ND	-			
SVOC % Match	%	N/A	NONE	0	-			



Analytical Report Number : 20-21763

Project / Site name: Area 16, the Lanes, Penwortham

* 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 *
1575588	WS108	None Supplied	0.00-0.27	Brown loam and clay with gravel and vegetation.
1575589	WS141	None Supplied	0.04-0.34	Brown loam and clay with gravel and vegetation.



Analytical Report Number : 20-21763

Project / Site name: Area 16, the Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.

Sample Deviation Report



Sample ID	Other ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS108		S	20-21763	1575588	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS108		S	20-21763	1575588	c	Cr (III) in soil	L080-PL	c
WS108		S	20-21763	1575588	c	Semi-volatile organic compounds in soil	L064-PL	c
WS108		S	20-21763	1575588	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS108		S	20-21763	1575588	c	pH in soil (automated)	L099-PL	c
WS141		S	20-21763	1575589	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS141		S	20-21763	1575589	c	Cr (III) in soil	L080-PL	c
WS141		S	20-21763	1575589	c	Organic matter (Automated) in soil	L009-PL	c
WS141		S	20-21763	1575589	c	Speciated EPA-16 PAHs in soil	L064-PL	c
WS141		S	20-21763	1575589	c	pH in soil (automated)	L099-PL	c



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Analytical Report Number : 20-21765

Project / Site name:	Area 1, The Lanes, Penwortham	Samples received on:	29/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	29/07/2020
Your order number:		Analysis completed by:	31/07/2020
Report Issue Number:	1	Report issued on:	31/07/2020
Samples Analysed:	7 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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

Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number	1575597	1575598	1575599	1575600	1575601			
Sample Reference	WS01	WS04	WS09	WS13	CP01			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.37	0.00-0.50	0.00-0.29	0.35-0.40	0.00-0.50			
Date Sampled	22/06/2020	22/06/2020	22/06/2020	23/06/2020	24/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	26	27	29	35	26
Total mass of sample received	kg	0.001	NONE	0.95	0.95	0.78	0.67	0.85

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.5	5.6	5.5	5.3	5.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	43	-	43	-	44
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.021	-	0.022	-	0.022
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	21.4	-	21.5	-	22.2
Organic Matter	%	0.1	MCERTS	9.3	-	10	-	9.7

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.27	-	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.8	-	< 0.05	-	0.98
Anthracene	mg/kg	0.05	MCERTS	0.63	-	< 0.05	-	0.33
Fluoranthene	mg/kg	0.05	MCERTS	7.4	-	< 0.05	-	4.3
Pyrene	mg/kg	0.05	MCERTS	7.6	-	< 0.05	-	4.7
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.0	-	< 0.05	-	2.6
Chrysene	mg/kg	0.05	MCERTS	4.3	-	< 0.05	-	2.7
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	8.0	-	< 0.05	-	4.0
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.7	-	< 0.05	-	2.5
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.1	-	< 0.05	-	3.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.8	-	< 0.05	-	2.5
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.99	-	< 0.05	-	0.62
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.9	-	< 0.05	-	2.4

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	50.5	-	< 0.80	-	31.0
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	22	25	19	17	22
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.0	1.2	0.4	0.4	1.1
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	1.6	< 1.2	< 1.2	1.4
Chromium (III)	mg/kg	1	NONE	52	53	40	39	56
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	53	55	41	40	58
Copper (aqua regia extractable)	mg/kg	1	MCERTS	90	100	49	51	97
Lead (aqua regia extractable)	mg/kg	1	MCERTS	230	290	74	71	240
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.0	0.9	0.9	0.9	1.0
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	38	41	29	25	39
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	260	300	110	110	270

Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number	1575597	1575598	1575599	1575600	1575601
Sample Reference	WS01	WS04	WS09	WS13	CP01
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.37	0.00-0.50	0.00-0.29	0.35-0.40	0.00-0.50
Date Sampled	22/06/2020	22/06/2020	22/06/2020	23/06/2020	24/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1575597	1575598	1575599	1575600	1575601
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1575597	1575598	1575599	1575600	1575601
Benzene	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001
Toluene	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001
Ethylbenzene	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001
p & m-xylene	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001
o-xylene	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	Limit of detection	Accreditation Status	1575597	1575598	1575599	1575600	1575601
TPH-CWG - Aliphatic > EC5 - EC6	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001	
TPH-CWG - Aliphatic > EC6 - EC8	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001	
TPH-CWG - Aliphatic > EC8 - EC10	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001	
TPH-CWG - Aliphatic > EC10 - EC12	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0	
TPH-CWG - Aliphatic > EC12 - EC16	2	MCERTS	< 2.0	-	< 2.0	-	2.5	
TPH-CWG - Aliphatic > EC16 - EC21	8	MCERTS	< 8.0	-	< 8.0	-	16	
TPH-CWG - Aliphatic > EC21 - EC35	8	MCERTS	48	-	< 8.0	-	83	
TPH-CWG - Aliphatic (EC5 - EC35)	10	MCERTS	50	-	< 10	-	100	

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	Limit of detection	Accreditation Status	1575597	1575598	1575599	1575600	1575601
TPH-CWG - Aromatic > EC5 - EC7	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001	
TPH-CWG - Aromatic > EC7 - EC8	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001	
TPH-CWG - Aromatic > EC8 - EC10	0.001	MCERTS	< 0.001	-	< 0.001	-	< 0.001	
TPH-CWG - Aromatic > EC10 - EC12	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0	
TPH-CWG - Aromatic > EC12 - EC16	2	MCERTS	18	-	< 2.0	-	12	
TPH-CWG - Aromatic > EC16 - EC21	10	MCERTS	26	-	< 10	-	26	
TPH-CWG - Aromatic > EC21 - EC35	10	MCERTS	79	-	< 10	-	72	
TPH-CWG - Aromatic (EC5 - EC35)	10	MCERTS	120	-	< 10	-	110	

Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number	1575597			1575598		1575599		1575600		1575601	
Sample Reference	WS01			WS04		WS09		WS13		CP01	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.37			0.00-0.50		0.00-0.29		0.35-0.40		0.00-0.50	
Date Sampled	22/06/2020			22/06/2020		22/06/2020		23/06/2020		24/06/2020	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								

SVOCs											
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	1575597	1575598	1575599	1575600	1575601	1575601	1575601	1575601
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.32	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	0.27	0.29	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.27	< 0.05	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.37	< 0.05	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	1.8	1.5	< 0.05	< 0.05	2.3	< 0.05	0.98	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.63	0.55	< 0.05	< 0.05	0.54	< 0.05	0.33	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	0.6	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	7.4	6.6	< 0.05	< 0.05	3.7	< 0.05	4.3	< 0.05
Pyrene	mg/kg	0.05	MCERTS	7.6	6.7	< 0.05	< 0.05	3.9	< 0.05	4.7	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.0	3.8	< 0.05	< 0.05	1.7	< 0.05	2.6	< 0.05
Chrysene	mg/kg	0.05	MCERTS	4.3	4.2	< 0.05	< 0.05	1.6	< 0.05	2.7	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	8.0	5.3	< 0.05	< 0.05	1.5	< 0.05	4.0	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.7	5.5	< 0.05	< 0.05	1.1	< 0.05	2.5	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.1	5.5	< 0.05	< 0.05	1.5	< 0.05	3.5	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.8	4.5	< 0.05	< 0.05	0.76	< 0.05	2.5	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.99	0.97	< 0.05	< 0.05	< 0.05	< 0.05	0.62	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.9	4.6	< 0.05	< 0.05	0.67	< 0.05	2.4	< 0.05



Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number	1575597	1575598	1575599	1575600	1575601
Sample Reference	WS01	WS04	WS09	WS13	CP01
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.37	0.00-0.50	0.00-0.29	0.35-0.40	0.00-0.50
Date Sampled	22/06/2020	22/06/2020	22/06/2020	23/06/2020	24/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	Benzo[e]pyrene	Benzo[e]pyrene	Friedelan-3-one	Benzo[e]pyrene	Benzo[e]acephenanthrylene
SVOC % Match	%	N/A	NONE	98	98	93	95	98
SVOCs TICs Compound Name		N/A	NONE	Pyrene, 1-methyl-	Chrysene, 1-methyl-	-	Pyrene, 1-methyl-	Benzo[e]pyrene
SVOC % Match	%	N/A	NONE	96	96	-	93	98
SVOCs TICs Compound Name		N/A	NONE	Octadecane	Heneicosane	-	13-Tetradecen-1-ol acetate	11H-Benzo[b]fluorene
SVOC % Match	%	N/A	NONE	95	96	-	93	90
SVOCs TICs Compound Name		N/A	NONE	-	Dibenz(a,e)aceanthrylene	-	-	-
SVOC % Match	%	N/A	NONE	-	96	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	11H-Benzo[b]fluorene	-	-	-
SVOC % Match	%	N/A	NONE	-	95	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	D-Homoandrostane, (5.alpha.,13.alpha.)-	-	-	-
SVOC % Match	%	N/A	NONE	-	95	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	9,10-Dimethylanthracene	-	-	-
SVOC % Match	%	N/A	NONE	-	94	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	Hexadecane	-	-	-
SVOC % Match	%	N/A	NONE	-	94	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	Pyrene, 1-methyl-	-	-	-
SVOC % Match	%	N/A	NONE	-	93	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	1(2H)-Phenanthrene, 3,4,9,10-tetrahydro-7-methoxy-	-	-	-
SVOC % Match	%	N/A	NONE	-	91	-	-	-

Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number				1575602	1575603			
Sample Reference				BH03	TP12			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				22/06/2020	29/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	23	27			
Total mass of sample received	kg	0.001	NONE	0.86	0.85			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.2	6.4			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	42	39			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.021	0.020			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	20.9	19.6			
Organic Matter	%	0.1	MCERTS	7.7	6.5			

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Fluoranthene	mg/kg	0.05	MCERTS	0.29	< 0.05			
Pyrene	mg/kg	0.05	MCERTS	0.39	< 0.05			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	14			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.3			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	5.5			
Chromium (III)	mg/kg	1	NONE	42	33			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	42	39			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	36	34			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	54	47			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	28	31			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	96	81			

Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number				1575602	1575603		
Sample Reference				BH03	TP12		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.00-0.30	0.00-0.30		
Date Sampled				22/06/2020	29/06/2020		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Monoaromatics & Oxygenates							
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0		
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0		
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0		
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0		
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0		

Monoaromatics & Oxygenates							
Benzene	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
Toluene	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
Ethylbenzene	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
p & m-xylene	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
o-xylene	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	0.001	MCERTS	< 0.001	< 0.001		

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0		
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10		

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10		



4041



Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number				1575602	1575603			
Sample Reference				BH03	TP12			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				22/06/2020	29/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1			
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2			
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2			
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3			
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Fluoranthene	mg/kg	0.05	MCERTS	0.29	< 0.05			
Pyrene	mg/kg	0.05	MCERTS	0.39	< 0.05			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			



Analytical Report Number: 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Lab Sample Number				1575602	1575603		
Sample Reference				BH03	TP12		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.00-0.30	0.00-0.30		
Date Sampled				22/06/2020	29/06/2020		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	ND	Eicosane		
SVOC % Match	%	N/A	NONE	-	95		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-		
SVOC % Match	%	N/A	NONE	-	-		



Analytical Report Number : 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

* 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 *
1575597	WS01	None Supplied	0.00-0.37	Brown loam and clay with gravel and vegetation.
1575598	WS04	None Supplied	0.00-0.50	Brown loam and clay with gravel and vegetation.
1575599	WS09	None Supplied	0.00-0.29	Brown loam and clay with gravel and vegetation.
1575600	WS13	None Supplied	0.35-0.40	Brown loam and clay with gravel and vegetation.
1575601	CP01	None Supplied	0.00-0.50	Brown loam and clay with gravel and vegetation.
1575602	BH03	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1575603	TP12	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-21765

Project / Site name: Area 1, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.

Sample Deviation Report



Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
BH03		S	20-21765	1575602	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
BH03		S	20-21765	1575602	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
BH03		S	20-21765	1575602	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
BH03		S	20-21765	1575602	c	Cr (III) in soil	L080-PL	c
BH03		S	20-21765	1575602	c	Organic matter (Automated) in soil	L009-PL	c
BH03		S	20-21765	1575602	c	Semi-volatile organic compounds in soil	L064-PL	c
BH03		S	20-21765	1575602	c	Speciated EPA-16 PAHs in soil	L064-PL	c
BH03		S	20-21765	1575602	c	TPHCWG (Soil)	L088/76-PL	c
BH03		S	20-21765	1575602	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
BH03		S	20-21765	1575602	c	pH in soil (automated)	L099-PL	c
CP01		S	20-21765	1575601	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
CP01		S	20-21765	1575601	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
CP01		S	20-21765	1575601	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
CP01		S	20-21765	1575601	c	Cr (III) in soil	L080-PL	c
CP01		S	20-21765	1575601	c	Organic matter (Automated) in soil	L009-PL	c
CP01		S	20-21765	1575601	c	Semi-volatile organic compounds in soil	L064-PL	c
CP01		S	20-21765	1575601	c	Speciated EPA-16 PAHs in soil	L064-PL	c
CP01		S	20-21765	1575601	c	TPHCWG (Soil)	L088/76-PL	c
CP01		S	20-21765	1575601	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
CP01		S	20-21765	1575601	c	pH in soil (automated)	L099-PL	c
TP12		S	20-21765	1575603	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP12		S	20-21765	1575603	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
TP12		S	20-21765	1575603	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
TP12		S	20-21765	1575603	c	Cr (III) in soil	L080-PL	c
TP12		S	20-21765	1575603	c	Organic matter (Automated) in soil	L009-PL	c
TP12		S	20-21765	1575603	c	Semi-volatile organic compounds in soil	L064-PL	c
TP12		S	20-21765	1575603	c	Speciated EPA-16 PAHs in soil	L064-PL	c
TP12		S	20-21765	1575603	c	TPHCWG (Soil)	L088/76-PL	c
TP12		S	20-21765	1575603	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
TP12		S	20-21765	1575603	c	pH in soil (automated)	L099-PL	c
WS01		S	20-21765	1575597	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS01		S	20-21765	1575597	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
WS01		S	20-21765	1575597	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
WS01		S	20-21765	1575597	c	Cr (III) in soil	L080-PL	c
WS01		S	20-21765	1575597	c	Organic matter (Automated) in soil	L009-PL	c
WS01		S	20-21765	1575597	c	Semi-volatile organic compounds in soil	L064-PL	c
WS01		S	20-21765	1575597	c	Speciated EPA-16 PAHs in soil	L064-PL	c
WS01		S	20-21765	1575597	c	TPHCWG (Soil)	L088/76-PL	c
WS01		S	20-21765	1575597	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS01		S	20-21765	1575597	c	pH in soil (automated)	L099-PL	c
WS04		S	20-21765	1575598	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS04		S	20-21765	1575598	c	Cr (III) in soil	L080-PL	c
WS04		S	20-21765	1575598	c	Semi-volatile organic compounds in soil	L064-PL	c
WS04		S	20-21765	1575598	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS04		S	20-21765	1575598	c	pH in soil (automated)	L099-PL	c
WS09		S	20-21765	1575599	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS09		S	20-21765	1575599	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
WS09		S	20-21765	1575599	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
WS09		S	20-21765	1575599	c	Cr (III) in soil	L080-PL	c
WS09		S	20-21765	1575599	c	Organic matter (Automated) in soil	L009-PL	c
WS09		S	20-21765	1575599	c	Semi-volatile organic compounds in soil	L064-PL	c

Key: a - No sampling date b - Incorrect container
c - Holding time d - Headspace e - Temperature

Sample Deviation Report



WS09		S	20-21765	1575599	c	Speciated EPA-16 PAHs in soil	L064-PL	c
WS09		S	20-21765	1575599	c	TPHCWG (Soil)	L088/76-PL	c
WS09		S	20-21765	1575599	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS09		S	20-21765	1575599	c	pH in soil (automated)	L099-PL	c
WS13		S	20-21765	1575600	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS13		S	20-21765	1575600	c	Cr (III) in soil	L080-PL	c
WS13		S	20-21765	1575600	c	Semi-volatile organic compounds in soil	L064-PL	c
WS13		S	20-21765	1575600	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS13		S	20-21765	1575600	c	pH in soil (automated)	L099-PL	c



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Analytical Report Number : 20-21764

Project / Site name:	Area 2, The Lanes, Penwortham	Samples received on:	29/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	29/07/2020
Your order number:		Analysis completed by:	31/07/2020
Report Issue Number:	1	Report issued on:	31/07/2020
Samples Analysed:	7 soil samples		

Signed: _____

Rachel Bradley

Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number	1575590	1575591	1575592	1575593	1575594			
Sample Reference	WS16	WS21	WS26	WS30	WS32			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.20	0.00-0.36	0.00-0.30	0.00-0.30			
Date Sampled	18/06/2020	18/06/2020	17/06/2020	17/06/2020	17/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	27	26	23	29	29
Total mass of sample received	kg	0.001	NONE	0.99	0.89	1.1	0.98	0.99

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.6	6.1	5.9	5.6	5.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	32	-	26	-	33
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.016	-	0.013	-	0.016
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	16.2	-	13.0	-	16.4
Organic Matter	%	0.1	MCERTS	9.6	-	8.4	-	11

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.38
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.31
Phenanthrene	mg/kg	0.05	MCERTS	0.40	-	0.30	-	2.5
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.40
Fluoranthene	mg/kg	0.05	MCERTS	0.99	-	0.70	-	3.2
Pyrene	mg/kg	0.05	MCERTS	1.1	-	0.73	-	2.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.91	-	0.47	-	1.6
Chrysene	mg/kg	0.05	MCERTS	0.65	-	0.45	-	1.5
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.3	-	0.69	-	1.7
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.39	-	0.21	-	0.60
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.78	-	0.48	-	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.38	-	0.26	-	0.56
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.39	-	0.30	-	0.53

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	7.23	-	4.59	-	16.9
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	24	20	19	22	20
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.4	0.4	0.4	0.4
Chromium (hexavalent)	mg/kg	1.2	MCERTS	1.3	1.4	2.5	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	42	35	38	39	38
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	44	37	40	40	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	58	45	49	51	47
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	150	82	97	100
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.7	< 0.3	< 0.3	0.6
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	37	31	32	35	31
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	93	100	120	100

Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number	1575590	1575591	1575592	1575593	1575594			
Sample Reference	WS16	WS21	WS26	WS30	WS32			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.20	0.00-0.36	0.00-0.30	0.00-0.30			
Date Sampled	18/06/2020	18/06/2020	17/06/2020	17/06/2020	17/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status					
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	-	-

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status					
Benzene	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
Toluene	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
Ethylbenzene	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
p & m-xylene	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
o-xylene	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	Units	Limit of detection	Accreditation Status					
TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	-	-	< 8.0	-	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	-	-	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	-

TPH-CWG - Aromatic > EC5 - EC7	Units	Limit of detection	Accreditation Status					
TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	-	-	< 10	-	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	-	-	< 10	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	-



4041



Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number	1575590			1575591			1575592			1575593			1575594		
Sample Reference	WS16			WS21			WS26			WS30			WS32		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.20			0.00-0.36			0.00-0.30			0.00-0.30		
Date Sampled	18/06/2020			18/06/2020			17/06/2020			17/06/2020			17/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs

Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.38
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.31
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	0.40	0.29	0.30	0.81	2.5	
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.20	0.40	
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	0.99	0.67	0.70	1.2	3.2	
Pyrene	mg/kg	0.05	MCERTS	1.1	0.67	0.73	1.2	2.5	
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.91	0.47	0.47	0.87	1.6	
Chrysene	mg/kg	0.05	MCERTS	0.65	0.37	0.45	0.65	1.5	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.3	0.60	0.69	1.2	1.7	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.39	0.25	0.21	0.21	0.60	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.78	0.46	0.48	0.73	1.2	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.38	0.24	0.26	0.35	0.56	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.39	0.25	0.30	0.36	0.53	

Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number	1575590	1575591	1575592	1575593	1575594
Sample Reference	WS16	WS21	WS26	WS30	WS32
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.20	0.00-0.36	0.00-0.30	0.00-0.30
Date Sampled	18/06/2020	18/06/2020	17/06/2020	17/06/2020	17/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match	N/A	NONE	Eicosane	Friedelan-3-one	Triacontane	Octadecane	Eicosane
SVOCs TICs Compound Name	%	N/A	NONE	Oxirane, tetradecyl-	Benzo[e]pyrene	1-Nonadecene	Z-15-Octadecen-1-ol acetate	Pyrene, 1-methyl-
SVOC % Match	%	N/A	NONE	97	98	96	95	96
SVOCs TICs Compound Name	%	N/A	NONE	Chrysene, 1-methyl-	Benzo[e]acephenanthrylene	Oxirane, hexadecyl-	Benzo[e]pyrene	Benz[a]anthracene, 7-methyl-
SVOC % Match	%	N/A	NONE	95	97	95	95	96
SVOCs TICs Compound Name	%	N/A	NONE	Benzo[e]acephenanthrylene	Octadecane	Octadecanal	11H-Benzo[b]fluorene	Oxirane, tridecyl-
SVOC % Match	%	N/A	NONE	95	95	92	93	96
SVOCs TICs Compound Name	%	N/A	NONE	Friedelan-3-one	Oxirane, tridecyl-	-	Oxirane, hexadecyl-	Anthracene, 9-methyl-
SVOC % Match	%	N/A	NONE	95	95	-	93	95
SVOCs TICs Compound Name	%	N/A	NONE	Pyrene, 1-methyl-	Eicosane	-	Naphtho[2,3-b]norbornadiene	11H-Benzo[a]fluorene
SVOC % Match	%	N/A	NONE	91	94	-	92	95
SVOCs TICs Compound Name	%	N/A	NONE	-	11H-Benzo[b]fluorene	-	Anthracene, 1-methyl-	Benzo[e]acephenanthrylene
SVOC % Match	%	N/A	NONE	-	93	-	91	95
SVOCs TICs Compound Name	%	N/A	NONE	-	1,19-Eicosadiene	-	Benzo[a]anthracene, 7-methyl-	Cyclohexane-1,3-dione, 2-allylaminomethylene-5,5-dimethyl-
SVOC % Match	%	N/A	NONE	-	93	-	91	95
SVOCs TICs Compound Name	%	N/A	NONE	-	-	-	Nonadecane, 1-chloro-	Dodecane
SVOC % Match	%	N/A	NONE	-	-	-	91	93
SVOCs TICs Compound Name	%	N/A	NONE	-	-	-	-	Naphthalene, 1,6-dimethyl-
SVOC % Match	%	N/A	NONE	-	-	-	-	93

Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number				1575595	1575596			
Sample Reference				TP23	TP27			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	26	24			
Total mass of sample received	kg	0.001	NONE	0.97	0.91			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.6	5.6			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	25			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.013			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	12.7			
Organic Matter	%	0.1	MCERTS	-	9.2			

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	-	0.44			
Pyrene	mg/kg	0.05	MCERTS	-	0.44			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.36			
Chrysene	mg/kg	0.05	MCERTS	-	0.25			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.49			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.20			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.29			
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	-	2.47			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	23			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.5			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	36	41			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	37	42			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	43	55			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	82	100			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	30	36			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	94	120			



Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number				1575595	1575596			
Sample Reference				TP23	TP27			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-			
Toluene	µg/kg	1	MCERTS	-	-			
Ethylbenzene	µg/kg	1	MCERTS	-	-			
p & m-xylene	µg/kg	1	MCERTS	-	-			
o-xylene	µg/kg	1	MCERTS	-	-			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-			

Monoaromatics & Oxygenates								
Benzene	mg/kg	0.001	MCERTS	-	-			
Toluene	mg/kg	0.001	MCERTS	-	-			
Ethylbenzene	mg/kg	0.001	MCERTS	-	-			
p & m-xylene	mg/kg	0.001	MCERTS	-	-			
o-xylene	mg/kg	0.001	MCERTS	-	-			
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	0.001	MCERTS	-	-			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-			

Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number				1575595	1575596			
Sample Reference				TP23	TP27			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1			
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2			
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2			
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3			
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Phenanthrene	mg/kg	0.05	MCERTS	0.48	< 0.05			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Fluoranthene	mg/kg	0.05	MCERTS	0.97	0.44			
Pyrene	mg/kg	0.05	MCERTS	1.0	0.44			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.70	0.36			
Chrysene	mg/kg	0.05	MCERTS	0.56	0.25			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.2	0.49			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.20	0.20			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.71	0.29			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.35	< 0.05			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.37	< 0.05			



Analytical Report Number: 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Lab Sample Number				1575595	1575596			
Sample Reference				TP23	TP27			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	Eicosane	Eicosane			
SVOC % Match	%	N/A	NONE	96	97			
SVOCs TICs Compound Name		N/A	NONE	Oxirane, hexadecyl-	Oxirane, tetradecyl-			
SVOC % Match	%	N/A	NONE	94	96			
SVOCs TICs Compound Name		N/A	NONE	Benz[e]acephenanthrylene	Cyclohexane, hexaethylidene-			
SVOC % Match	%	N/A	NONE	94	94			
SVOCs TICs Compound Name		N/A	NONE	Fluoranthene, 2-methyl-	Heptadecane			
SVOC % Match	%	N/A	NONE	93	92			
SVOCs TICs Compound Name		N/A	NONE	Nonahexacontanoic acid	Benzo[e]pyrene			
SVOC % Match	%	N/A	NONE	91	92			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			



Analytical Report Number : 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

* 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 *
1575590	WS16	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1575591	WS21	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1575592	WS26	None Supplied	0.00-0.36	Brown loam and clay with gravel and vegetation.
1575593	WS30	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1575594	WS32	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1575595	TP23	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1575596	TP27	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-21764

Project / Site name: Area 2, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.

Sample Deviation Report



Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
TP23		S	20-21764	1575595	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP23		S	20-21764	1575595	c	Cr (III) in soil	L080-PL	c
TP23		S	20-21764	1575595	c	Semi-volatile organic compounds in soil	L064-PL	c
TP23		S	20-21764	1575595	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
TP23		S	20-21764	1575595	c	pH in soil (automated)	L099-PL	c
TP27		S	20-21764	1575596	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP27		S	20-21764	1575596	c	Cr (III) in soil	L080-PL	c
TP27		S	20-21764	1575596	c	Organic matter (Automated) in soil	L009-PL	c
TP27		S	20-21764	1575596	c	Semi-volatile organic compounds in soil	L064-PL	c
TP27		S	20-21764	1575596	c	Speciated EPA-16 PAHs in soil	L064-PL	c
TP27		S	20-21764	1575596	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
TP27		S	20-21764	1575596	c	pH in soil (automated)	L099-PL	c
WS16		S	20-21764	1575590	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS16		S	20-21764	1575590	c	Cr (III) in soil	L080-PL	c
WS16		S	20-21764	1575590	c	Organic matter (Automated) in soil	L009-PL	c
WS16		S	20-21764	1575590	c	Semi-volatile organic compounds in soil	L064-PL	c
WS16		S	20-21764	1575590	c	Speciated EPA-16 PAHs in soil	L064-PL	c
WS16		S	20-21764	1575590	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS16		S	20-21764	1575590	c	pH in soil (automated)	L099-PL	c
WS21		S	20-21764	1575591	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS21		S	20-21764	1575591	c	Cr (III) in soil	L080-PL	c
WS21		S	20-21764	1575591	c	Semi-volatile organic compounds in soil	L064-PL	c
WS21		S	20-21764	1575591	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS21		S	20-21764	1575591	c	pH in soil (automated)	L099-PL	c
WS26		S	20-21764	1575592	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS26		S	20-21764	1575592	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
WS26		S	20-21764	1575592	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
WS26		S	20-21764	1575592	c	Cr (III) in soil	L080-PL	c
WS26		S	20-21764	1575592	c	Organic matter (Automated) in soil	L009-PL	c
WS26		S	20-21764	1575592	c	Semi-volatile organic compounds in soil	L064-PL	c
WS26		S	20-21764	1575592	c	Speciated EPA-16 PAHs in soil	L064-PL	c
WS26		S	20-21764	1575592	c	TPHCWG (Soil)	L088/76-PL	c
WS26		S	20-21764	1575592	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS26		S	20-21764	1575592	c	pH in soil (automated)	L099-PL	c
WS30		S	20-21764	1575593	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS30		S	20-21764	1575593	c	Cr (III) in soil	L080-PL	c
WS30		S	20-21764	1575593	c	Semi-volatile organic compounds in soil	L064-PL	c
WS30		S	20-21764	1575593	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS30		S	20-21764	1575593	c	pH in soil (automated)	L099-PL	c
WS32		S	20-21764	1575594	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS32		S	20-21764	1575594	c	Cr (III) in soil	L080-PL	c
WS32		S	20-21764	1575594	c	Organic matter (Automated) in soil	L009-PL	c
WS32		S	20-21764	1575594	c	Semi-volatile organic compounds in soil	L064-PL	c
WS32		S	20-21764	1575594	c	Speciated EPA-16 PAHs in soil	L064-PL	c
WS32		S	20-21764	1575594	c	Tentatively identified compounds (SVOC) in soil	L064-PL	c
WS32		S	20-21764	1575594	c	pH in soil (automated)	L099-PL	c

Key: a - No sampling date b - Incorrect container
c - Holding time d - Headspace e - Temperature



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Analytical Report Number : 20-21394

Project / Site name:	Area 2, the Lanes, Penwortham	Samples received on:	24/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	24/07/2020
Your order number:		Analysis completed by:	29/07/2020
Report Issue Number:	1	Report issued on:	29/07/2020
Samples Analysed:	34 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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.

Iss No 20-21394-1 Area 2, the Lanes, Penwortham C4259

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 12



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573247	1573248	1573249	1573250	1573251			
Sample Reference	WS19	WS24	WS27	WS28	WS29			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.80-1.00	0.00-0.30	0.40-0.60	0.00-0.30	0.00-0.40			
Date Sampled	17/06/2020	17/06/2020	17/06/2020	17/06/2020	17/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	15	12	12	15
Total mass of sample received	kg	0.001	NONE	1.1	1.0	1.2	1.2	0.89

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	6.0	7.5	5.8	6.1
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Heavy Metals / Metalloids

	mg/kg		MCERTS					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.4	21	6.7	15	24
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	31	32	40	33	36
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	32	40	33	37
Copper (aqua regia extractable)	mg/kg	1	MCERTS	20	41	20	39	53
Lead (aqua regia extractable)	mg/kg	1	MCERTS	12	74	14	66	85
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.6	< 0.3	0.6	0.6
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	31	40	28	36
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	48	98	52	70	110



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573252	1573253	1573254	1573255	1573256			
Sample Reference	TP21	TP22	TP25	TP26	TP28			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.80-1.00	0.00-0.35	0.00-0.30			
Date Sampled	29/06/2020	24/06/2020	24/06/2020	24/06/2020	24/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	17	15	12	19	14
Total mass of sample received	kg	0.001	NONE	0.99	0.64	0.96	0.57	0.91

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.7	5.7	8.0	5.5	5.9
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.5	13	9.3	9.7	15
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.3	< 0.2	0.2	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	33	27	35	22	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	27	36	22	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	29	21	25	28
Lead (aqua regia extractable)	mg/kg	1	MCERTS	25	57	13	46	58
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.7	< 0.3	0.6	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	25	33	18	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	62	75	49	57	64



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573257	1573258	1573259	1573260	1573261			
Sample Reference	TP31	TP32	TP33	TP35	TP38			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30			
Date Sampled	25/06/2020	25/06/2020	25/06/2020	25/06/2020	25/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	15	25	16	17	14
Total mass of sample received	kg	0.001	NONE	0.91	0.73	0.76	0.78	0.85

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.4	5.9	6.0	6.0	5.3
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Heavy Metals / Metalloids

Parameter	Units	Limit of detection	Accreditation Status	1573257	1573258	1573259	1573260	1573261
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	14	22	20	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.4	0.5	0.4	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	38	31	35	33	33
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	38	31	35	33	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	40	72	45	44
Lead (aqua regia extractable)	mg/kg	1	MCERTS	87	76	100	85	85
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	0.8	0.7	0.8	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34	29	32	29	29
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	100	110	92	99



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573262	1573263	1573264	1573425	1573426			
Sample Reference	TP39	TP40	WS140	WS02	WS03			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.35-1.20	0.00-0.40	0.30-0.65			
Date Sampled	25/06/2010	25/06/2020	26/06/2020	22/06/2020	22/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	15	15	14	11	14
Total mass of sample received	kg	0.001	NONE	1.0	0.90	0.86	0.96	0.95

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.7	5.4	6.9	6.1	7.5

Heavy Metals / Metalloids

	mg/kg	1	MCERTS	15	15	9.9	19	9.1
Arsenic (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	0.3	< 0.2	0.4	< 0.2
Cadmium (aqua regia extractable)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (hexavalent)	mg/kg	1	NONE	27	30	43	29	31
Chromium (III)	mg/kg	1	MCERTS	28	30	43	29	31
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	47	21	48	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	50	81	18	82	13
Lead (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.8	< 0.3	0.6	< 0.3
Mercury (aqua regia extractable)	mg/kg	1	MCERTS	24	28	48	22	35
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	57	97	56	76	47
Zinc (aqua regia extractable)	mg/kg							



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573427	1573428	1573429	1573430	1573431			
Sample Reference	WS05	WS06	WS07	WS12	WS14			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.37	0.00-0.40	0.00-0.35			
Date Sampled	22/06/2020	23/06/2020	22/06/2020	23/06/2020	23/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	11	12	16	17
Total mass of sample received	kg	0.001	NONE	0.87	0.92	1.0	0.74	0.85

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.4	6.3	6.2	5.4	5.8
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Heavy Metals / Metalloids

Element	Units	Limit of detection	Accreditation Status	1573427	1573428	1573429	1573430	1573431
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	10	14	14	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.2	0.3	0.4	0.4
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	31	20	28	27	25
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	20	28	27	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	35	27	28	38	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	49	42	44	62	74
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.5	0.5	0.9	0.8
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	15	23	20	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	77	56	63	84	84



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573432	1573433	1573434	1573435	1573436			
Sample Reference	BH04	TP01	TP02	TP06	TP11			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30			
Date Sampled	23/06/2020	24/06/2020	24/06/2020	29/06/2020	29/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	18	15	20	11
Total mass of sample received	kg	0.001	NONE	0.96	0.64	0.83	0.92	0.90

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.6	5.8	5.9	5.8	6.1
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Heavy Metals / Metalloids

Element	Units	Limit of detection	Accreditation Status	1573432	1573433	1573434	1573435	1573436
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	14	17	18	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4	0.5	0.4	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	30	32	33	36	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	32	33	36	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	24	51	53	44	27
Lead (aqua regia extractable)	mg/kg	1	MCERTS	55	70	95	81	42
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.8	0.7	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	23	24	25	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	59	98	110	100	72



Analytical Report Number: 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Lab Sample Number	1573437	1573438	1573439	1573440				
Sample Reference	TP13	TP15	TP17	TP18				
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied				
Depth (m)	0.80-1.00	0.00-0.30	0.00-0.30	0.00-0.30				
Date Sampled	29/06/2020	29/06/2020	29/06/2020	26/06/2020				
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	14	17	20	19	
Total mass of sample received	kg	0.001	NONE	1.2	1.1	0.97	0.94	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.5	7.1	5.9	6.0	
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Heavy Metals / Metalloids

Parameter	Units	Limit of detection	Accreditation Status	1573437	1573438	1573439	1573440
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.6	9.7	15	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.3	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	36	24	33	29
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36	25	33	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	25	31	28
Lead (aqua regia extractable)	mg/kg	1	MCERTS	12	25	48	43
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	37	14	24	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	51	58	68	65



Analytical Report Number : 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

* 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 *
1573247	WS19	None Supplied	0.80-1.00	Brown clay.
1573248	WS24	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573249	WS27	None Supplied	0.40-0.60	Brown clay.
1573250	WS28	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1573251	WS29	None Supplied	0.00-0.40	Brown loam and clay with vegetation.
1573252	TP21	None Supplied	0.00-0.30	Brown clay with vegetation.
1573253	TP22	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573254	TP25	None Supplied	0.80-1.00	Brown clay.
1573255	TP26	None Supplied	0.00-0.35	Brown loam with vegetation.
1573256	TP28	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573257	TP31	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573258	TP32	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573259	TP33	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573260	TP35	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573261	TP38	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573262	TP39	None Supplied	0.00-0.30	Brown clay and loam with vegetation.
1573263	TP40	None Supplied	0.00-0.30	Brown clay and loam with vegetation.
1573264	WS140	None Supplied	0.35-1.20	Brown clay.
1573425	WS02	None Supplied	0.00-0.40	Brown loam and clay with vegetation.
1573426	WS03	None Supplied	0.30-0.65	Brown clay.
1573427	WS05	None Supplied	0.00-0.30	Brown loam and clay with vegetation and gravel
1573428	WS06	None Supplied	0.00-0.30	Brown loam and clay with vegetation and gravel
1573429	WS07	None Supplied	0.00-0.37	Brown loam and clay with vegetation.
1573430	WS12	None Supplied	0.00-0.40	Brown loam and clay with vegetation.
1573431	WS14	None Supplied	0.00-0.35	Brown loam with vegetation.
1573432	BH04	None Supplied	0.00-0.30	Brown clay and loam with vegetation and gravel
1573433	TP01	None Supplied	0.00-0.30	Brown loam with vegetation.
1573434	TP02	None Supplied	0.00-0.30	Brown loam with vegetation.
1573435	TP06	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573436	TP11	None Supplied	0.00-0.30	Brown loam and clay with vegetation.
1573437	TP13	None Supplied	0.80-1.00	Brown clay.
1573438	TP15	None Supplied	0.00-0.30	Brown loam and clay.
1573439	TP17	None Supplied	0.00-0.30	Brown loam and clay.
1573440	TP18	None Supplied	0.00-0.30	Brown loam and clay with vegetation.



Analytical Report Number : 20-21394

Project / Site name: Area 2, the Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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

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.

Sample Deviation Report



Sample ID	Other ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
BH04		S	20-21394	1573432	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
BH04		S	20-21394	1573432	c	Cr (III) in soil	L080-PL	c
BH04		S	20-21394	1573432	c	pH in soil (automated)	L099-PL	c
TP01		S	20-21394	1573433	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP01		S	20-21394	1573433	c	Cr (III) in soil	L080-PL	c
TP01		S	20-21394	1573433	c	pH in soil (automated)	L099-PL	c
TP02		S	20-21394	1573434	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP02		S	20-21394	1573434	c	Cr (III) in soil	L080-PL	c
TP02		S	20-21394	1573434	c	pH in soil (automated)	L099-PL	c
TP18		S	20-21394	1573440	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP18		S	20-21394	1573440	c	Cr (III) in soil	L080-PL	c
TP18		S	20-21394	1573440	c	pH in soil (automated)	L099-PL	c
TP22		S	20-21394	1573253	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP22		S	20-21394	1573253	c	Cr (III) in soil	L080-PL	c
TP22		S	20-21394	1573253	c	pH in soil (automated)	L099-PL	c
TP25		S	20-21394	1573254	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP25		S	20-21394	1573254	c	Cr (III) in soil	L080-PL	c
TP25		S	20-21394	1573254	c	pH in soil (automated)	L099-PL	c
TP26		S	20-21394	1573255	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP26		S	20-21394	1573255	c	Cr (III) in soil	L080-PL	c
TP26		S	20-21394	1573255	c	pH in soil (automated)	L099-PL	c
TP28		S	20-21394	1573256	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP28		S	20-21394	1573256	c	Cr (III) in soil	L080-PL	c
TP28		S	20-21394	1573256	c	pH in soil (automated)	L099-PL	c
TP31		S	20-21394	1573257	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP31		S	20-21394	1573257	c	Cr (III) in soil	L080-PL	c
TP31		S	20-21394	1573257	c	pH in soil (automated)	L099-PL	c
TP32		S	20-21394	1573258	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP32		S	20-21394	1573258	c	Cr (III) in soil	L080-PL	c
TP32		S	20-21394	1573258	c	pH in soil (automated)	L099-PL	c
TP33		S	20-21394	1573259	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP33		S	20-21394	1573259	c	Cr (III) in soil	L080-PL	c
TP33		S	20-21394	1573259	c	pH in soil (automated)	L099-PL	c
TP35		S	20-21394	1573260	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP35		S	20-21394	1573260	c	Cr (III) in soil	L080-PL	c
TP35		S	20-21394	1573260	c	pH in soil (automated)	L099-PL	c
TP38		S	20-21394	1573261	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP38		S	20-21394	1573261	c	Cr (III) in soil	L080-PL	c
TP38		S	20-21394	1573261	c	pH in soil (automated)	L099-PL	c
TP39		S	20-21394	1573262	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP39		S	20-21394	1573262	c	Cr (III) in soil	L080-PL	c
TP39		S	20-21394	1573262	c	pH in soil (automated)	L099-PL	c
TP40		S	20-21394	1573263	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
TP40		S	20-21394	1573263	c	Cr (III) in soil	L080-PL	c
TP40		S	20-21394	1573263	c	pH in soil (automated)	L099-PL	c
WS02		S	20-21394	1573425	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS02		S	20-21394	1573425	c	Cr (III) in soil	L080-PL	c
WS02		S	20-21394	1573425	c	pH in soil (automated)	L099-PL	c
WS03		S	20-21394	1573426	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS03		S	20-21394	1573426	c	Cr (III) in soil	L080-PL	c
WS03		S	20-21394	1573426	c	pH in soil (automated)	L099-PL	c

Key: a - No sampling date b - Incorrect container
c - Holding time d - Headspace e - Temperature

Sample Deviation Report



WS05		S	20-21394	1573427	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS05		S	20-21394	1573427	c	Cr (III) in soil	L080-PL	c
WS05		S	20-21394	1573427	c	pH in soil (automated)	L099-PL	c
WS06		S	20-21394	1573428	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS06		S	20-21394	1573428	c	Cr (III) in soil	L080-PL	c
WS06		S	20-21394	1573428	c	pH in soil (automated)	L099-PL	c
WS07		S	20-21394	1573429	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS07		S	20-21394	1573429	c	Cr (III) in soil	L080-PL	c
WS07		S	20-21394	1573429	c	pH in soil (automated)	L099-PL	c
WS12		S	20-21394	1573430	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS12		S	20-21394	1573430	c	Cr (III) in soil	L080-PL	c
WS12		S	20-21394	1573430	c	pH in soil (automated)	L099-PL	c
WS14		S	20-21394	1573431	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS14		S	20-21394	1573431	c	Cr (III) in soil	L080-PL	c
WS14		S	20-21394	1573431	c	pH in soil (automated)	L099-PL	c
WS140		S	20-21394	1573264	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS140		S	20-21394	1573264	c	Cr (III) in soil	L080-PL	c
WS140		S	20-21394	1573264	c	pH in soil (automated)	L099-PL	c
WS19		S	20-21394	1573247	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS19		S	20-21394	1573247	c	Cr (III) in soil	L080-PL	c
WS19		S	20-21394	1573247	c	pH in soil (automated)	L099-PL	c
WS24		S	20-21394	1573248	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS24		S	20-21394	1573248	c	Cr (III) in soil	L080-PL	c
WS24		S	20-21394	1573248	c	pH in soil (automated)	L099-PL	c
WS27		S	20-21394	1573249	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS27		S	20-21394	1573249	c	Cr (III) in soil	L080-PL	c
WS27		S	20-21394	1573249	c	pH in soil (automated)	L099-PL	c
WS28		S	20-21394	1573250	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS28		S	20-21394	1573250	c	Cr (III) in soil	L080-PL	c
WS28		S	20-21394	1573250	c	pH in soil (automated)	L099-PL	c
WS29		S	20-21394	1573251	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
WS29		S	20-21394	1573251	c	Cr (III) in soil	L080-PL	c
WS29		S	20-21394	1573251	c	pH in soil (automated)	L099-PL	c



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Analytical Report Number : 20-21360

Project / Site name:	Area 18, The Lanes, Penwortham	Samples received on:	06/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	24/07/2020
Your order number:		Analysis completed by:	31/07/2020
Report Issue Number:	1	Report issued on:	31/07/2020
Samples Analysed:	2 soil samples		

Signed: _____

Joanna Wawrzeczko
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

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

Iss No 20-21360-1 Area 18, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 4



Analytical Report Number: 20-21360

Project / Site name: Area 18, The Lanes, Penwortham

Lab Sample Number				1573065	1573066		
Sample Reference				TP194	TP195		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.00-0.30	0.00-0.30		
Date Sampled				02/07/2020	02/07/2020		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1		
Moisture Content	%	N/A	NONE	20	28		
Total mass of sample received	kg	0.001	NONE	0.99	0.82		

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-		
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8	7.1		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.2	9.1		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2		
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2		
Chromium (III)	mg/kg	1	NONE	24	23		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	23		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	23		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	25	41		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	17		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	31	71		



Analytical Report Number : 20-21360

Project / Site name: Area 18, The Lanes, Penwortham

* 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 *
1573065	TP194	None Supplied	0.00-0.30	Brown clay and sand.
1573066	TP195	None Supplied	0.00-0.30	Brown clay with vegetation.



Analytical Report Number : 20-21360

Project / Site name: Area 18, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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

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.



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Analytical Report Number : 20-17280

Replaces Analytical Report Number : 20-17280, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 19, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	01/07/2020
Your order number:		Analysis completed by:	27/07/2020
Report Issue Number:	2	Report issued on:	28/07/2020
Samples Analysed:	9 soil samples		

Signed: _____

Joanna Wawrzeczko
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.

Iss No 20-17280-2 Area 19, The Lanes, Penwortham C4259

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 11

Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number	1550403	1550404	1550405	1550406	1550407			
Sample Reference	WS145	WS147	WS148	WS149	WS158			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.40	0.50-1.00	0.00-0.40	0.00-0.38			
Date Sampled	25/06/2020	25/06/2020	26/06/2020	26/06/2020	26/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	14	14	13	13	13
Total mass of sample received	kg	0.001	NONE	1.4	1.4	1.4	1.4	1.2

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	6.7	5.9	5.6	6.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	20	16	16	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	1.9
Chromium (III)	mg/kg	1	NONE	33	32	31	32	33
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	33	32	33	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	57	50	40	58	38
Lead (aqua regia extractable)	mg/kg	1	MCERTS	75	94	180	89	54
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.5	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	28	28	25	22	26
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	75	67	66	90	56



4041



Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number	1550403				1550404				1550405				1550406				1550407			
Sample Reference	WS145				WS147				WS148				WS149				WS158			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.40				0.50-1.00				0.00-0.40				0.00-0.38			
Date Sampled	25/06/2020				25/06/2020				26/06/2020				26/06/2020				26/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.35
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.95
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.86
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.91
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.76
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46



Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number	1550403	1550404	1550405	1550406	1550407
Sample Reference	WS145	WS147	WS148	WS149	WS158
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.40	0.50-1.00	0.00-0.40	0.00-0.38
Date Sampled	25/06/2020	25/06/2020	26/06/2020	26/06/2020	26/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	-	-	-	-	Oxirane, hexadecyl-
SVOC % Match	%	N/A	NONE	-	-	-	-	95
SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	-	-	-	-	-
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrimfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number				1550403	1550404	1550405	1550406	1550407
Sample Reference				WS145	WS147	WS148	WS149	WS158
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.40	0.50-1.00	0.00-0.40	0.00-0.38
Date Sampled				25/06/2020	25/06/2020	26/06/2020	26/06/2020	26/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbuthylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number	1550408	1550409	1550410	1550411				
Sample Reference	WS159	WS161	WS163	SA12				
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied				
Depth (m)	0.00-0.40	0.00-0.20	0.00-0.35	0.00-0.30				
Date Sampled	26/06/2020	26/06/2020	25/06/2020	25/06/2020				
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	15	12	11	13	
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2	

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.0	5.7	6.3	6.6	
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	60	-	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	0.030	-	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	30.2	-	
Organic Matter	%	0.1	MCERTS	-	-	7.7	-	

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	-	-	1.7	-	
Anthracene	mg/kg	0.05	MCERTS	-	-	0.34	-	
Fluoranthene	mg/kg	0.05	MCERTS	-	-	2.4	-	
Pyrene	mg/kg	0.05	MCERTS	-	-	2.3	-	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	1.4	-	
Chrysene	mg/kg	0.05	MCERTS	-	-	1.1	-	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	1.1	-	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.76	-	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	1.2	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.51	-	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.59	-	

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	13.3	-	
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	15	25	18	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	0.4	0.3	
Chromium (hexavalent)	mg/kg	1.2	MCERTS	1.4	< 1.2	< 1.2	< 1.2	
Chromium (III)	mg/kg	1	NONE	34	30	33	33	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	30	33	33	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	70	55	71	81	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	65	100	110	89	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	27	23	30	25	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	82	88	130	110	



Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number				1550408	1550409	1550410	1550411	
Sample Reference				WS159	WS161	WS163	SA12	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				0.00-0.40	0.00-0.20	0.00-0.35	0.00-0.30	
Date Sampled				26/06/2020	26/06/2020	25/06/2020	25/06/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	2.1	1.7	-	-
Anthracene	mg/kg	0.05	MCERTS	-	0.47	0.34	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	3.6	2.4	-	-
Pyrene	mg/kg	0.05	MCERTS	-	3.3	2.3	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	2.1	1.4	-	-
Chrysene	mg/kg	0.05	MCERTS	-	1.6	1.1	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	1.8	1.1	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	1.0	0.76	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.8	1.2	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.85	0.51	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.95	0.59	-	-

Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number	1550408	1550409	1550410	1550411
Sample Reference	WS159	WS161	WS163	SA12
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.40	0.00-0.20	0.00-0.35	0.00-0.30
Date Sampled	26/06/2020	26/06/2020	25/06/2020	25/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	1550408	1550409	1550410	1550411
SVOCs TICs Compound Name		N/A	NONE	-	Oxirane, tetradecyl-	ND	-
SVOC % Match	%	N/A	NONE	-	95	0	-
SVOCs TICs Compound Name		N/A	NONE	-	Oxirane, hexadecyl-	-	-
SVOC % Match	%	N/A	NONE	-	95	-	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1550408	1550409	1550410	1550411
Alachlor	µg/kg	10	NONE	-	< 10	-	-
Aldrin	µg/kg	10	NONE	-	< 10	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	< 10	-	-
Azinphos-methyl	µg/kg	10	NONE	-	< 10	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	< 10	-	-
BHC-beta	µg/kg	10	NONE	-	< 10	-	-
BHC-delta	µg/kg	10	NONE	-	< 10	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	< 10	-	-
Bifenthrin	µg/kg	10	NONE	-	< 10	-	-
Carbophenothion	µg/kg	10	NONE	-	< 10	-	-
Chlordane-cis	µg/kg	10	NONE	-	< 10	-	-
Chlordane-trans	µg/kg	10	NONE	-	< 10	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	< 10	-	-
Chlorothalonil	µg/kg	20	NONE	-	< 20	-	-
Chlorpyrifos	µg/kg	10	NONE	-	< 10	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	< 10	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	< 10	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	< 10	-	-
DDD-o,p'	µg/kg	10	NONE	-	< 10	-	-
DDD-p,p'	µg/kg	10	NONE	-	< 10	-	-
DDE-o,p'	µg/kg	10	NONE	-	< 10	-	-
DDE-p,p'	µg/kg	10	NONE	-	< 10	-	-
DDT-o,p'	µg/kg	10	NONE	-	< 10	-	-
DDT-p,p'	µg/kg	10	NONE	-	< 10	-	-
Deltamethrin	µg/kg	10	NONE	-	< 10	-	-
Demeton-O	µg/kg	10	NONE	-	< 10	-	-
Demeton-S	µg/kg	10	NONE	-	< 10	-	-
Diazinon	µg/kg	10	NONE	-	< 10	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	< 10	-	-
Dichlorvos	µg/kg	10	NONE	-	< 10	-	-
Dieldrin	µg/kg	10	NONE	-	< 10	-	-
Dimethoate	µg/kg	10	NONE	-	< 10	-	-
Dimethylvinphos	µg/kg	10	NONE	-	< 10	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	< 10	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	< 10	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	< 10	-	-
Endrin	µg/kg	20	NONE	-	< 20	-	-
Endrin aldehyde	µg/kg	10	NONE	-	< 10	-	-
Endrin ketone	µg/kg	10	NONE	-	< 10	-	-
Ethion	µg/kg	10	NONE	-	< 10	-	-
Etrimfos	µg/kg	10	NONE	-	< 10	-	-
Fenitrothion	µg/kg	10	NONE	-	< 10	-	-
Fenthion	µg/kg	10	NONE	-	< 10	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	< 10	-	-
Heptachlor	µg/kg	10	NONE	-	< 10	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	< 10	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	< 10	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	< 10	-	-
Isodrin	µg/kg	20	NONE	-	< 20	-	-
Malathion	µg/kg	10	NONE	-	< 10	-	-
Methacrifos	µg/kg	10	NONE	-	< 10	-	-

Analytical Report Number: 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Lab Sample Number				1550408	1550409	1550410	1550411
Sample Reference				WS159	WS161	WS163	SA12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.40	0.00-0.20	0.00-0.35	0.00-0.30
Date Sampled				26/06/2020	26/06/2020	25/06/2020	25/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Methoxychlor, p,p'-	µg/kg	20	NONE	-	< 20	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	< 10	-	-
Omethoate	µg/kg	20	NONE	-	< 20	-	-
Parathion	µg/kg	10	NONE	-	< 10	-	-
Parathion-methyl	µg/kg	10	NONE	-	< 10	-	-
Pendimethalin	µg/kg	10	NONE	-	< 10	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	< 10	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	< 10	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	< 10	-	-
Phorate	µg/kg	10	NONE	-	< 10	-	-
Phosalone	µg/kg	10	NONE	-	< 10	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	< 10	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	< 10	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	< 10	-	-
Propetamphos	µg/kg	10	NONE	-	< 10	-	-
Propyzamide	µg/kg	10	NONE	-	< 10	-	-
Tecnazene	µg/kg	10	NONE	-	< 10	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	< 10	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	< 10	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	< 10	-	-
Trifluralin	µg/kg	10	NONE	-	< 10	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	< 10	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	< 10	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	< 50	-	-
Atrazine	µg/kg	10	NONE	-	< 10	-	-
Carbaryl	µg/kg	10	NONE	-	< 10	-	-
Carbofuran	µg/kg	10	NONE	-	< 10	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	< 20	-	-
Chlortoluron	µg/kg	10	NONE	-	< 10	-	-
Cyanazine	µg/kg	10	NONE	-	< 10	-	-
Diflufenzuron	µg/kg	50	NONE	-	< 50	-	-
Diuron	µg/kg	10	NONE	-	< 10	-	-
Fluometuron	µg/kg	10	NONE	-	< 10	-	-
Isoproturon	µg/kg	10	NONE	-	< 10	-	-
Linuron	µg/kg	20	NONE	-	< 20	-	-
Methiocarb	µg/kg	10	NONE	-	< 10	-	-
Methomyl	µg/kg	10	NONE	-	< 10	-	-
Oxamyl	µg/kg	10	NONE	-	< 10	-	-
Prometryn	µg/kg	10	NONE	-	< 10	-	-
Propazine	µg/kg	10	NONE	-	< 10	-	-
Propoxur	µg/kg	10	NONE	-	< 10	-	-
Siduron	µg/kg	10	NONE	-	< 10	-	-
Simazine	µg/kg	10	NONE	-	< 10	-	-
Tebuthiuron	µg/kg	10	NONE	-	< 10	-	-
Terbuthylazine	µg/kg	10	NONE	-	< 10	-	-
Terbutryn	µg/kg	10	NONE	-	< 10	-	-
Thiadiazuron	µg/kg	10	NONE	-	< 10	-	-
Trietazine	µg/kg	10	NONE	-	< 10	-	-



Analytical Report Number : 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

* 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 *
1550403	WS145	None Supplied	0.00-0.30	Brown sand with gravel and vegetation.
1550404	WS147	None Supplied	0.00-0.40	Brown sand with gravel and vegetation.
1550405	WS148	None Supplied	0.50-1.00	Brown sand with gravel and vegetation.
1550406	WS149	None Supplied	0.00-0.40	Brown sand with gravel and vegetation.
1550407	WS158	None Supplied	0.00-0.38	Brown sand with gravel and vegetation.
1550408	WS159	None Supplied	0.00-0.40	Brown sand with gravel and vegetation.
1550409	WS161	None Supplied	0.00-0.20	Brown sand with gravel and vegetation.
1550410	WS163	None Supplied	0.00-0.35	Brown sand with gravel and vegetation.
1550411	SA12	None Supplied	0.00-0.30	Brown sand with gravel and vegetation.

Analytical Report Number : 20-17280

Project / Site name: Area 19, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.



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Analytical Report Number : 20-15155

Project / Site name:	Area 15, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1024	Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	7 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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.

Iss No 20-15155-1 Area 15, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 11



Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham
Your Order No: 1024

Lab Sample Number	1539373	1539374	1539375	1539376	1539377			
Sample Reference	WS136	WS133	WS133	WS135	WS153			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.40	0.00-0.30	0.30-0.60	0.00-0.40	0.00-0.30			
Date Sampled	11/06/2020	11/06/2020	11/06/2020	11/06/2020	11/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	9.5	12	12	9.9
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.0	6.2	7.2	6.9	6.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	26	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.013	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	13.2	-	-	-	-
Organic Matter	%	0.1	MCERTS	5.2	8.0	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	0.27	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	0.44	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	0.43	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.22	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	0.21	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.24	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.20	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.25	-	-	-	-
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	2.26	-	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	19	4.7	12	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.3	< 0.2	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	24	33	44	34	31
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	34	44	36	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	49	68	27	41	39
Lead (aqua regia extractable)	mg/kg	1	MCERTS	39	74	12	41	58
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	0.7	< 0.3	0.6	0.6
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	34	42	28	28
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	51	120	45	48	84



Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1024

Lab Sample Number	1539373	1539374	1539375	1539376	1539377			
Sample Reference	WS136	WS133	WS133	WS135	WS153			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.40	0.00-0.30	0.30-0.60	0.00-0.40	0.00-0.30			
Date Sampled	11/06/2020	11/06/2020	11/06/2020	11/06/2020	11/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status					
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	mg/kg	0.001	MCERTS					
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	5.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	6.1	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	23	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	66	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	100	-	-	-

Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham
Your Order No: 1024

Lab Sample Number	1539373				1539374				1539375				1539376				1539377			
Sample Reference	WS136				WS133				WS133				WS135				WS153			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.40				0.00-0.30				0.30-0.60				0.00-0.40				0.00-0.30			
Date Sampled	11/06/2020				11/06/2020				11/06/2020				11/06/2020				11/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs

Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	0.27	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	0.44	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	0.43	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.22	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	0.21	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.24	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.20	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.25	-	-	-	-	-
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	-	-	-	-	-



Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1024

Lab Sample Number	1539373	1539374	1539375	1539376	1539377
Sample Reference	WS136	WS133	WS133	WS135	WS153
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.40	0.00-0.30	0.30-0.60	0.00-0.40	0.00-0.30
Date Sampled	11/06/2020	11/06/2020	11/06/2020	11/06/2020	11/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Pesticide Screen

Pesticides		N/A	NONE	Absent	-	-	-	-
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Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1024

Lab Sample Number				1539378	1539379			
Sample Reference				WS152	WS156			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.40			
Date Sampled				11/06/2020	11/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	11	12			
Total mass of sample received	kg	0.001	NONE	1.2	1.2			

Asbestos in Soil	Type	N/A	ISO 17025	-	-			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.2	6.4			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-			
Organic Matter	%	0.1	MCERTS	-	-			

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	16			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.5			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	28	30			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	31			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	30	45			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	41	54			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.6			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	30			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	85	220			



Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1024

Lab Sample Number				1539378	1539379			
Sample Reference				WS152	WS156			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.40			
Date Sampled				11/06/2020	11/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-			
Toluene	µg/kg	1	MCERTS	-	-			
Ethylbenzene	µg/kg	1	MCERTS	-	-			
p & m-xylene	µg/kg	1	MCERTS	-	-			
o-xylene	µg/kg	1	MCERTS	-	-			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-			

Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1024

Lab Sample Number				1539378	1539379			
Sample Reference				WS152	WS156			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.40			
Date Sampled				11/06/2020	11/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-			
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-			
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-			
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-			
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-			
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-			
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-			
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-			
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-			
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-			
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-			
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-			
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-			
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-			
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-			
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Phenanthrene	mg/kg	0.05	MCERTS	0.40	-			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-			
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-			
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-			
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-			
Fluoranthene	mg/kg	0.05	MCERTS	1.1	-			
Pyrene	mg/kg	0.05	MCERTS	0.94	-			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.55	-			
Chrysene	mg/kg	0.05	MCERTS	0.57	-			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.83	-			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.53	-			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.46	-			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.41	-			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.44	-			



Analytical Report Number: 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Your Order No: 1024

Lab Sample Number				1539378	1539379			
Sample Reference				WS152	WS156			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.40			
Date Sampled				11/06/2020	11/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Pesticide Screen

Pesticides		N/A	NONE	Absent	-			
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Analytical Report Number : 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

* 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 *
1539373	WS136	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1539374	WS133	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.
1539375	WS133	None Supplied	0.30-0.60	Brown clay with gravel.
1539376	WS135	None Supplied	0.00-0.40	Brown loam and sand with gravel and vegetation.
1539377	WS153	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.
1539378	WS152	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.
1539379	WS156	None Supplied	0.00-0.40	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 20-15155

Project / Site name: Area 15, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.



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Analytical Report Number : 20-17278

Replaces Analytical Report Number : 20-17278, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 4, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	01/07/2020
Your order number:		Analysis completed by:	20/07/2020
Report Issue Number:	2	Report issued on:	21/07/2020
Samples Analysed:	22 soil samples		

Signed:

Joanna Wawrzeczko
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.

Iss No 20-17278-2 Area 4, The Lanes, Penwortham C4259.XLS

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 29

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550377	1550378	1550379	1550380	1550381			
Sample Reference	WS35	WS36	WS37	WS39	WS42			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.20	0.25-0.45			
Date Sampled	24/06/2020	19/06/2020	19/06/2020	19/06/2020	24/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	15	14	15	17	15
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.1	1.1	1.1

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.6	5.6	5.3	5.3	6.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	20	14	17	5.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	7.8
Chromium (III)	mg/kg	1	NONE	42	44	43	43	39
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	42	44	43	44	46
Copper (aqua regia extractable)	mg/kg	1	MCERTS	46	49	37	39	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	51	80	76	66	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.1	0.6	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	35	39	31	36	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	71	96	75	99	43



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550377	1550378	1550379	1550380	1550381			
Sample Reference	WS35	WS36	WS37	WS39	WS42			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.20	0.25-0.45			
Date Sampled	24/06/2020	19/06/2020	19/06/2020	19/06/2020	24/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1550377	1550378	1550379	1550380	1550381
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	1550377	1550378	1550379	1550380	1550381
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	1550377	1550378	1550379	1550380	1550381
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550377			1550378			1550379			1550380			1550381		
Sample Reference	WS35			WS36			WS37			WS39			WS42		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.20			0.25-0.45		
Date Sampled	24/06/2020			19/06/2020			19/06/2020			19/06/2020			24/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	1550377	1550378	1550379	1550380	1550381
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550377	1550378	1550379	1550380	1550381
Sample Reference	WS35	WS36	WS37	WS39	WS42
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.20	0.25-0.45
Date Sampled	24/06/2020	19/06/2020	19/06/2020	19/06/2020	24/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrimfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550377	1550378	1550379	1550380	1550381
Sample Reference				WS35	WS36	WS37	WS39	WS42
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.20	0.25-0.45
Date Sampled				24/06/2020	19/06/2020	19/06/2020	19/06/2020	24/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbutylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550382	1550383	1550384	1550385	1550386			
Sample Reference	WS43	WS45	WS47	CP04	TP41			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30			
Date Sampled	19/06/2020	19/06/2020	19/06/2020	26/06/2020	23/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	22	11	15	11	10
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.5	5.5	5.6	6.4	5.4
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	16	14	12	16
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	0.2	0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	46	44	39	30	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	46	44	39	30	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	29	33	31	36
Lead (aqua regia extractable)	mg/kg	1	MCERTS	76	55	97	48	59
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	22	24	25	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	89	68	130	68	89



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550382	1550383	1550384	1550385	1550386
Sample Reference				WS43	WS45	WS47	CP04	TP41
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				19/06/2020	19/06/2020	19/06/2020	26/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550382	1550383	1550384	1550385	1550386
Sample Reference				WS43	WS45	WS47	CP04	TP41
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				19/06/2020	19/06/2020	19/06/2020	26/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550382				1550383		1550384		1550385		1550386	
Sample Reference	WS43				WS45		WS47		CP04		TP41	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	19/06/2020				19/06/2020		19/06/2020		26/06/2020		23/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	Oxirane, hexadecyl-			Oxirane, hexadecyl-	
SVOC % Match	%	N/A	NONE	99	-	-	94	-
SVOCs TICs Compound Name		N/A	NONE	Oxirane, tetradecyl-				
SVOC % Match	%	N/A	NONE	96	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1550382	1550383	1550384	1550385	1550386
Alachlor	µg/kg	10	NONE	< 10	-	-	-	-
Aldrin	µg/kg	10	NONE	< 10	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	< 10	-	-	-	-
BHC-beta	µg/kg	10	NONE	< 10	-	-	-	-
BHC-delta	µg/kg	10	NONE	< 10	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	< 10	-	-	-	-
Bifenthrin	µg/kg	10	NONE	< 10	-	-	-	-
Carbophenothion	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	< 10	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	< 10	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	< 20	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	< 10	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	< 10	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
Deltamethrin	µg/kg	10	NONE	< 10	-	-	-	-
Demeton-O	µg/kg	10	NONE	< 10	-	-	-	-
Demeton-S	µg/kg	10	NONE	< 10	-	-	-	-
Diazinon	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorvos	µg/kg	10	NONE	< 10	-	-	-	-
Dieldrin	µg/kg	10	NONE	< 10	-	-	-	-
Dimethoate	µg/kg	10	NONE	< 10	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	< 10	-	-	-	-
Endrin	µg/kg	20	NONE	< 20	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	< 10	-	-	-	-
Endrin ketone	µg/kg	10	NONE	< 10	-	-	-	-
Ethion	µg/kg	10	NONE	< 10	-	-	-	-
Etrimfos	µg/kg	10	NONE	< 10	-	-	-	-
Fenitrothion	µg/kg	10	NONE	< 10	-	-	-	-
Fenthion	µg/kg	10	NONE	< 10	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	< 10	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	< 10	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	< 10	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550382	1550383	1550384	1550385	1550386
Sample Reference				WS43	WS45	WS47	CP04	TP41
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				19/06/2020	19/06/2020	19/06/2020	26/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Isodrin	µg/kg	20	NONE	< 20	-	-	-	-
Malathion	µg/kg	10	NONE	< 10	-	-	-	-
Methacrifos	µg/kg	10	NONE	< 10	-	-	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	< 20	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	< 10	-	-	-	-
Omethoate	µg/kg	20	NONE	< 20	-	-	-	-
Parathion	µg/kg	10	NONE	< 10	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Pendimethalin	µg/kg	10	NONE	< 10	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	< 10	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	< 10	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	< 10	-	-	-	-
Phorate	µg/kg	10	NONE	< 10	-	-	-	-
Phosalone	µg/kg	10	NONE	< 10	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Propetamphos	µg/kg	10	NONE	< 10	-	-	-	-
Propyzamide	µg/kg	10	NONE	< 10	-	-	-	-
Tecnazene	µg/kg	10	NONE	< 10	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	< 10	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	< 10	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	< 10	-	-	-	-
Trifluralin	µg/kg	10	NONE	< 10	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	< 10	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	< 10	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	< 50	-	-	-	-
Atrazine	µg/kg	10	NONE	< 10	-	-	-	-
Carbaryl	µg/kg	10	NONE	< 10	-	-	-	-
Carbofuran	µg/kg	10	NONE	< 10	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	< 20	-	-	-	-
Chlortoluron	µg/kg	10	NONE	< 10	-	-	-	-
Cyanazine	µg/kg	10	NONE	< 10	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	< 50	-	-	-	-
Diuron	µg/kg	10	NONE	< 10	-	-	-	-
Fluometuron	µg/kg	10	NONE	< 10	-	-	-	-
Isoproturon	µg/kg	10	NONE	< 10	-	-	-	-
Linuron	µg/kg	20	NONE	< 20	-	-	-	-
Methiocarb	µg/kg	10	NONE	< 10	-	-	-	-
Methomyl	µg/kg	10	NONE	< 10	-	-	-	-
Oxamyl	µg/kg	10	NONE	< 10	-	-	-	-
Prometryn	µg/kg	10	NONE	< 10	-	-	-	-
Propazine	µg/kg	10	NONE	< 10	-	-	-	-
Propoxur	µg/kg	10	NONE	< 10	-	-	-	-
Siduron	µg/kg	10	NONE	< 10	-	-	-	-
Simazine	µg/kg	10	NONE	< 10	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	< 10	-	-	-	-
Terbutylazine	µg/kg	10	NONE	< 10	-	-	-	-
Terbutryn	µg/kg	10	NONE	< 10	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	< 10	-	-	-	-
Trietazine	µg/kg	10	NONE	< 10	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550387				1550388		1550389		1550390		1550391	
Sample Reference	TP43				TP45		TP49		TP50		TP51	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.60-0.70		0.00-0.30		0.00-0.30	
Date Sampled	23/06/2020				26/06/2020		25/06/2020		25/06/2020		25/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	14	17	15	14	13	14	13	13	
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	2.0	1.2	2.0	1.2	1.2	

Asbestos in Soil	Type	N/A	ISO 17025						
				-	-	-	Not-detected	Not-detected	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.6	5.6	7.1	7.8	5.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	23	30
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	0.011	0.015
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	11.4	15.1
Organic Matter	%	0.1	MCERTS	-	-	-	0.9	9.0

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	18	4.7	6.8	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	< 0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	2.1
Chromium (III)	mg/kg	1	NONE	50	46	48	42	42
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	50	46	48	42	44
Copper (aqua regia extractable)	mg/kg	1	MCERTS	40	69	84	22	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	70	66	14	12	26
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	0.6
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	37	34	40	40	35
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	97	100	72	53	54



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550387	1550388	1550389	1550390	1550391
Sample Reference				TP43	TP45	TP49	TP50	TP51
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.60-0.70	0.00-0.30	0.00-0.30
Date Sampled				23/06/2020	26/06/2020	25/06/2020	25/06/2020	25/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
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	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	< 10



4041



Environmental Science

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550387	1550388	1550389	1550390	1550391
Sample Reference				TP43	TP45	TP49	TP50	TP51
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.60-0.70	0.00-0.30	0.00-0.30
Date Sampled				23/06/2020	26/06/2020	25/06/2020	25/06/2020	25/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550387			1550388	1550389	1550390	1550391
Sample Reference	TP43			TP45	TP49	TP50	TP51
Sample Number	None Supplied			None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30			0.00-0.30	0.60-0.70	0.00-0.30	0.00-0.30
Date Sampled	23/06/2020			26/06/2020	25/06/2020	25/06/2020	25/06/2020
Time Taken	None Supplied			None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	1550387	1550388	1550389	1550390	1550391
SVOCs TICs Compound Name		N/A	NONE	-	-	-	ND	ND
SVOC % Match	%	N/A	NONE	-	-	-	0	0
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1550387	1550388	1550389	1550390	1550391
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrimfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550387	1550388	1550389	1550390	1550391
Sample Reference				TP43	TP45	TP49	TP50	TP51
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.60-0.70	0.00-0.30	0.00-0.30
Date Sampled				23/06/2020	26/06/2020	25/06/2020	25/06/2020	25/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbutylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550392	1550393	1550394	1550395	1550396			
Sample Reference	TP52	TP53	TP54	TP57	TP58			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30			
Date Sampled	25/06/2020	26/06/2020	26/06/2020	23/06/2020	23/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	14	13	14	13
Total mass of sample received	kg	0.001	NONE	0.80	1.5	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	-	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.3	5.8	5.6	5.6	5.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	29
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	0.015
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	14.5
Organic Matter	%	0.1	MCERTS	-	-	-	-	4.9

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

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	26	15	20	16	8.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	2.2	< 1.2	< 1.2	2.4
Chromium (III)	mg/kg	1	NONE	47	34	45	39	28
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	48	37	46	40	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	62	35	47	41	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	88	22	77	72	27
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.7	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	46	33	41	29	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	49	61	80	39



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550392	1550393	1550394	1550395	1550396
Sample Reference				TP52	TP53	TP54	TP57	TP58
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				25/06/2020	26/06/2020	26/06/2020	23/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550392	1550393	1550394	1550395	1550396
Sample Reference				TP52	TP53	TP54	TP57	TP58
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				25/06/2020	26/06/2020	26/06/2020	23/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number	1550392	1550393	1550394	1550395	1550396
Sample Reference	TP52	TP53	TP54	TP57	TP58
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled	25/06/2020	26/06/2020	26/06/2020	23/06/2020	23/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match			Naphthalenamine, N-phenyl-96				Oxirane, tetradecyl-93
	%	N/A	NONE		-	-	-	
	%	N/A	NONE	Oxirane, tetradecyl-96	-	-	-	-
	%	N/A	NONE	Oxirane, tridecyl-95	-	-	-	-

Pesticides

Pesticide Name	Unit	Limit	Status	1550392	1550393	1550394	1550395	1550396
Alachlor	µg/kg	10	NONE	< 10	-	-	-	-
Aldrin	µg/kg	10	NONE	< 10	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	< 10	-	-	-	-
BHC-beta	µg/kg	10	NONE	< 10	-	-	-	-
BHC-delta	µg/kg	10	NONE	< 10	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	< 10	-	-	-	-
Bifenthrin	µg/kg	10	NONE	< 10	-	-	-	-
Carbophenothion	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	< 10	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	< 10	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	< 20	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	< 10	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	< 10	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
Deltamethrin	µg/kg	10	NONE	< 10	-	-	-	-
Demeton-O	µg/kg	10	NONE	< 10	-	-	-	-
Demeton-S	µg/kg	10	NONE	< 10	-	-	-	-
Diazinon	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorvos	µg/kg	10	NONE	< 10	-	-	-	-
Dieldrin	µg/kg	10	NONE	< 10	-	-	-	-
Dimethoate	µg/kg	10	NONE	< 10	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	< 10	-	-	-	-
Endrin	µg/kg	20	NONE	< 20	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	< 10	-	-	-	-
Endrin ketone	µg/kg	10	NONE	< 10	-	-	-	-
Ethion	µg/kg	10	NONE	< 10	-	-	-	-
Etrimfos	µg/kg	10	NONE	< 10	-	-	-	-
Fenitrothion	µg/kg	10	NONE	< 10	-	-	-	-
Fenthion	µg/kg	10	NONE	< 10	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	< 10	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	< 10	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	< 10	-	-	-	-



4041



Environmental Science

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550392	1550393	1550394	1550395	1550396
Sample Reference				TP52	TP53	TP54	TP57	TP58
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				25/06/2020	26/06/2020	26/06/2020	23/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Isodrin	µg/kg	20	NONE	< 20	-	-	-	-
Malathion	µg/kg	10	NONE	< 10	-	-	-	-
Methacrifos	µg/kg	10	NONE	< 10	-	-	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	< 20	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	< 10	-	-	-	-
Omethoate	µg/kg	20	NONE	< 20	-	-	-	-
Parathion	µg/kg	10	NONE	< 10	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Pendimethalin	µg/kg	10	NONE	< 10	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	< 10	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	< 10	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	< 10	-	-	-	-
Phorate	µg/kg	10	NONE	< 10	-	-	-	-
Phosalone	µg/kg	10	NONE	< 10	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Propetamphos	µg/kg	10	NONE	< 10	-	-	-	-
Propyzamide	µg/kg	10	NONE	< 10	-	-	-	-
Tecnazene	µg/kg	10	NONE	< 10	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	< 10	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	< 10	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	< 10	-	-	-	-
Trifluralin	µg/kg	10	NONE	< 10	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	< 10	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	< 10	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	< 50	-	-	-	-
Atrazine	µg/kg	10	NONE	< 10	-	-	-	-
Carbaryl	µg/kg	10	NONE	< 10	-	-	-	-
Carbofuran	µg/kg	10	NONE	< 10	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	< 20	-	-	-	-
Chlortoluron	µg/kg	10	NONE	< 10	-	-	-	-
Cyanazine	µg/kg	10	NONE	< 10	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	< 50	-	-	-	-
Diuron	µg/kg	10	NONE	< 10	-	-	-	-
Fluometuron	µg/kg	10	NONE	< 10	-	-	-	-
Isoproturon	µg/kg	10	NONE	< 10	-	-	-	-
Linuron	µg/kg	20	NONE	< 20	-	-	-	-
Methiocarb	µg/kg	10	NONE	< 10	-	-	-	-
Methomyl	µg/kg	10	NONE	< 10	-	-	-	-
Oxamyl	µg/kg	10	NONE	< 10	-	-	-	-
Prometryn	µg/kg	10	NONE	< 10	-	-	-	-
Propazine	µg/kg	10	NONE	< 10	-	-	-	-
Propoxur	µg/kg	10	NONE	< 10	-	-	-	-
Siduron	µg/kg	10	NONE	< 10	-	-	-	-
Simazine	µg/kg	10	NONE	< 10	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	< 10	-	-	-	-
Terbutylazine	µg/kg	10	NONE	< 10	-	-	-	-
Terbutryn	µg/kg	10	NONE	< 10	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	< 10	-	-	-	-
Trietazine	µg/kg	10	NONE	< 10	-	-	-	-

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550397	1550398			
Sample Reference				SA03	SA03			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.90-1.00			
Date Sampled				25/06/2020	25/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	13	18			
Total mass of sample received	kg	0.001	NONE	1.2	1.3			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.5	6.8			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	2.9	42			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0014	0.021			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	1.4	21.2			
Organic Matter	%	0.1	MCERTS	9.0	1.6			

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	5.2			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	39	62			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	40	62			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	39	30			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	63	17			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34	56			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	88	82			



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550397	1550398			
Sample Reference				SA03	SA03			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.90-1.00			
Date Sampled				25/06/2020	25/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-			
Toluene	µg/kg	1	MCERTS	-	-			
Ethylbenzene	µg/kg	1	MCERTS	-	-			
p & m-xylene	µg/kg	1	MCERTS	-	-			
o-xylene	µg/kg	1	MCERTS	-	-			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-			



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550397	1550398			
Sample Reference				SA03	SA03			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.90-1.00			
Date Sampled				25/06/2020	25/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-			
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-			
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-			
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-			
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-			
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-			
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-			
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-			
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-			
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-			
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-			
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-			
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-			
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-			
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-			
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-			
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-			
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-			
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-			
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-			
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-			
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	-			



Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550397	1550398			
Sample Reference				SA03	SA03			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.90-1.00			
Date Sampled				25/06/2020	25/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	Oxirane, hexadecyl-	-			
SVOC % Match	%	N/A	NONE	98	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			

Pesticides

Alachlor	µg/kg	10	NONE	-	-			
Aldrin	µg/kg	10	NONE	-	-			
Azinphos-ethyl	µg/kg	10	NONE	-	-			
Azinphos-methyl	µg/kg	10	NONE	-	-			
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-			
BHC-beta	µg/kg	10	NONE	-	-			
BHC-delta	µg/kg	10	NONE	-	-			
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-			
Bifenthrin	µg/kg	10	NONE	-	-			
Carbophenothion	µg/kg	10	NONE	-	-			
Chlordane-cis	µg/kg	10	NONE	-	-			
Chlordane-trans	µg/kg	10	NONE	-	-			
Chlorfenvinphos	µg/kg	10	NONE	-	-			
Chlorothalonil	µg/kg	20	NONE	-	-			
Chlorpyrifos	µg/kg	10	NONE	-	-			
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-			
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-			
Cypermethrin (Sum)	µg/kg	10	NONE	-	-			
DDD-o,p'	µg/kg	10	NONE	-	-			
DDD-p,p'	µg/kg	10	NONE	-	-			
DDE-o,p'	µg/kg	10	NONE	-	-			
DDE-p,p'	µg/kg	10	NONE	-	-			
DDT-o,p'	µg/kg	10	NONE	-	-			
DDT-p,p'	µg/kg	10	NONE	-	-			
Deltamethrin	µg/kg	10	NONE	-	-			
Demeton-O	µg/kg	10	NONE	-	-			
Demeton-S	µg/kg	10	NONE	-	-			
Diazinon	µg/kg	10	NONE	-	-			
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-			
Dichlorvos	µg/kg	10	NONE	-	-			
Dieldrin	µg/kg	10	NONE	-	-			
Dimethoate	µg/kg	10	NONE	-	-			
Dimethylvinphos	µg/kg	10	NONE	-	-			
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-			
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-			
Endosulfan sulfate	µg/kg	10	NONE	-	-			
Endrin	µg/kg	20	NONE	-	-			
Endrin aldehyde	µg/kg	10	NONE	-	-			
Endrin ketone	µg/kg	10	NONE	-	-			
Ethion	µg/kg	10	NONE	-	-			
Etrimfos	µg/kg	10	NONE	-	-			
Fenitrothion	µg/kg	10	NONE	-	-			
Fenthion	µg/kg	10	NONE	-	-			
Fenvalerate (Sum)	µg/kg	10	NONE	-	-			
Heptachlor	µg/kg	10	NONE	-	-			
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-			
Hexachlorobenzene	µg/kg	10	NONE	-	-			
Hexachlorobutadiene	µg/kg	10	NONE	-	-			

Analytical Report Number: 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Lab Sample Number				1550397	1550398			
Sample Reference				SA03	SA03			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.90-1.00			
Date Sampled				25/06/2020	25/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Isodrin	µg/kg	20	NONE	-	-			
Malathion	µg/kg	10	NONE	-	-			
Methacrifos	µg/kg	10	NONE	-	-			
Methoxychlor, p,p'	µg/kg	20	NONE	-	-			
Mevinphos, E+Z	µg/kg	10	NONE	-	-			
Omethoate	µg/kg	20	NONE	-	-			
Parathion	µg/kg	10	NONE	-	-			
Parathion-methyl	µg/kg	10	NONE	-	-			
Pendimethalin	µg/kg	10	NONE	-	-			
Pentachlorobenzene	µg/kg	10	NONE	-	-			
Permethrin, Cis-	µg/kg	10	NONE	-	-			
Permethrin, Trans-	µg/kg	10	NONE	-	-			
Phorate	µg/kg	10	NONE	-	-			
Phosalone	µg/kg	10	NONE	-	-			
Phosphamidon (Sum)	µg/kg	10	NONE	-	-			
Pirimiphos-ethyl	µg/kg	10	NONE	-	-			
Pirimiphos-methyl	µg/kg	10	NONE	-	-			
Propetamphos	µg/kg	10	NONE	-	-			
Propyzamide	µg/kg	10	NONE	-	-			
Tecnazene	µg/kg	10	NONE	-	-			
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-			
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-			
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-			
Trifluralin	µg/kg	10	NONE	-	-			

Herbicides

Aldicarb	µg/kg	10	NONE	-	-			
Aldicarb Sulfone	µg/kg	10	NONE	-	-			
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-			
Atrazine	µg/kg	10	NONE	-	-			
Carbaryl	µg/kg	10	NONE	-	-			
Carbofuran	µg/kg	10	NONE	-	-			
Carbofuran, 3-OH	µg/kg	20	NONE	-	-			
Chlortoluron	µg/kg	10	NONE	-	-			
Cyanazine	µg/kg	10	NONE	-	-			
Diflufenzuron	µg/kg	50	NONE	-	-			
Diuron	µg/kg	10	NONE	-	-			
Fluometuron	µg/kg	10	NONE	-	-			
Isoproturon	µg/kg	10	NONE	-	-			
Linuron	µg/kg	20	NONE	-	-			
Methiocarb	µg/kg	10	NONE	-	-			
Methomyl	µg/kg	10	NONE	-	-			
Oxamyl	µg/kg	10	NONE	-	-			
Prometryn	µg/kg	10	NONE	-	-			
Propazine	µg/kg	10	NONE	-	-			
Propoxur	µg/kg	10	NONE	-	-			
Siduron	µg/kg	10	NONE	-	-			
Simazine	µg/kg	10	NONE	-	-			
Tebuthiuron	µg/kg	10	NONE	-	-			
Terbutylazine	µg/kg	10	NONE	-	-			
Terbutryn	µg/kg	10	NONE	-	-			
Thiadiazuron	µg/kg	10	NONE	-	-			
Trietazine	µg/kg	10	NONE	-	-			



Analytical Report Number : 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

* 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 *
1550377	WS35	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550378	WS36	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550379	WS37	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550380	WS39	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1550381	WS42	None Supplied	0.25-0.45	Brown loam and clay with gravel and vegetation.
1550382	WS43	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550383	WS45	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550384	WS47	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550385	CP04	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550386	TP41	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550387	TP43	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550388	TP45	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550389	TP49	None Supplied	0.60-0.70	Brown loam and clay with gravel and vegetation.
1550390	TP50	None Supplied	0.00-0.30	Brown clay.
1550391	TP51	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550392	TP52	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550393	TP53	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550394	TP54	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550395	TP57	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550396	TP58	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550397	SA03	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1550398	SA03	None Supplied	0.90-1.00	Brown clay.

Analytical Report Number : 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

Iss No 20-17278-2 Area 4, The Lanes, Penwortham C4259.XLS

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The results included within the report relate only to the sample(s) submitted for testing.

Page 28 of 29



Analytical Report Number : 20-17278

Project / Site name: Area 4, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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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.



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Analytical Report Number : 20-17271

Replaces Analytical Report Number : 20-17271, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 3, The Lanes, Penwortham	Samples received on:	01/07/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	01/07/2020
Your order number:		Analysis completed by:	20/07/2020
Report Issue Number:	2	Report issued on:	21/07/2020
Samples Analysed:	6 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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

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

Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number	1550245	1550246	1550247	1550248	1550249			
Sample Reference	WS127	HP170	HP171	HP172	HP173			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.52	0.00-0.60	0.00-0.36	0.00-0.19			
Date Sampled	29/06/2020	29/06/2020	29/06/2020	29/06/2020	29/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	14	31	36	15	21
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected	-
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.6	6.6	6.7	7.7	6.4
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	200	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	0.098	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	98.4	-
Organic Matter	%	0.1	MCERTS	-	-	-	6.1	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	0.26	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	0.20	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	0.25	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	1.5	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	0.53	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	4.6	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	4.1	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	2.9	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	2.1	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	4.3	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.98	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	3.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	1.8	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.43	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	2.2	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	29.3	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	6.0	13	14	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	0.4	0.9	0.4
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	35	30	39	32	32
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	31	39	33	32
Copper (aqua regia extractable)	mg/kg	1	MCERTS	32	20	46	95	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	50	13	33	55	52
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	25	33	36	26
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	35	63	130	120

Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number	1550245				1550246				1550247				1550248				1550249			
Sample Reference	WS127				HP170				HP171				HP172				HP173			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.52				0.00-0.60				0.00-0.36				0.00-0.19			
Date Sampled	29/06/2020				29/06/2020				29/06/2020				29/06/2020				29/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.26	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.20	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.25	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	< 0.05	1.5	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.53	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.28	4.6	-
Pyrene	mg/kg	0.05	MCERTS	-	-	0.32	4.1	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	2.9	-
Chrysene	mg/kg	0.05	MCERTS	-	-	< 0.05	2.1	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	4.3	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.98	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	3.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	1.8	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.43	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	2.2	-



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number	1550245	1550246	1550247	1550248	1550249
Sample Reference	WS127	HP170	HP171	HP172	HP173
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.52	0.00-0.60	0.00-0.36	0.00-0.19
Date Sampled	29/06/2020	29/06/2020	29/06/2020	29/06/2020	29/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match	Units	Limit of detection	Accreditation Status	1550245	1550246	1550247	1550248	1550249
SVOCs TICs Compound Name		N/A	NONE	-	-	-	9-Tricosene, (Z)-	Z-11,13-Tetradecadien-1-ol acetate	-
SVOC % Match	%	N/A	NONE	-	-	-	98	97	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	D, alpha.-Tocopherol	Pyrene, 1-methyl-	-
SVOC % Match	%	N/A	NONE	-	-	-	98	96	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	Pentacosane	Dibenzo[def,mno]chrysene	-
SVOC % Match	%	N/A	NONE	-	-	-	96	94	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	1,19-Eicosadiene	1-Octadecanethiol	-
SVOC % Match	%	N/A	NONE	-	-	-	95	92	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	1,21-Docosadiene	Benzo[e]pyrene	-
SVOC % Match	%	N/A	NONE	-	-	-	95	92	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	.gamma.-Tocopherol	Benzo[b]naphtho[1,2-d]thiophene	-
SVOC % Match	%	N/A	NONE	-	-	-	95	91	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	Lup-20(29)-en-3-one	Naphthalenecarboxylic acid, 2-	-
SVOC % Match	%	N/A	NONE	-	-	-	95	91	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	Friedelan-3-one	-	-
SVOC % Match	%	N/A	NONE	-	-	-	95	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	2- Chloropropionic acid, octadecyl ester	-	-
SVOC % Match	%	N/A	NONE	-	-	-	94	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	1,3-Benzodioxole, 5-(1-(4-ethoxyphenyl)ethyl)-6-methoxy-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	93	-	-

Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number	1550245				1550246				1550247				1550248				1550249			
Sample Reference	WS127				HP170				HP171				HP172				HP173			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.52				0.00-0.60				0.00-0.36				0.00-0.19			
Date Sampled	29/06/2020				29/06/2020				29/06/2020				29/06/2020				29/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

Pesticides

Alachlor	µg/kg	10	NONE	-	-	< 10	-	-
Aldrin	µg/kg	10	NONE	-	-	< 10	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	< 10	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	< 10	-	-
BHC-beta	µg/kg	10	NONE	-	-	< 10	-	-
BHC-delta	µg/kg	10	NONE	-	-	< 10	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	< 10	-	-
Bifenthrin	µg/kg	10	NONE	-	-	< 10	-	-
Carbophenothion	µg/kg	10	NONE	-	-	< 10	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	< 10	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	< 10	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	< 10	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	< 20	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	< 10	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	< 10	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	< 10	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	< 10	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	< 10	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	< 10	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	< 10	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	< 10	-	-
Deltamethrin	µg/kg	10	NONE	-	-	< 10	-	-
Demeton-O	µg/kg	10	NONE	-	-	< 10	-	-
Demeton-S	µg/kg	10	NONE	-	-	< 10	-	-
Diazinon	µg/kg	10	NONE	-	-	< 10	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	< 10	-	-
Dichlorvos	µg/kg	10	NONE	-	-	< 10	-	-
Dieldrin	µg/kg	10	NONE	-	-	< 10	-	-
Dimethoate	µg/kg	10	NONE	-	-	< 10	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	< 10	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	< 10	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	< 10	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	< 10	-	-
Endrin	µg/kg	20	NONE	-	-	< 20	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	< 10	-	-
Endrin ketone	µg/kg	10	NONE	-	-	< 10	-	-
Ethion	µg/kg	10	NONE	-	-	< 10	-	-
Etrimfos	µg/kg	10	NONE	-	-	< 10	-	-
Fenitrothion	µg/kg	10	NONE	-	-	< 10	-	-
Fenthion	µg/kg	10	NONE	-	-	< 10	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
Heptachlor	µg/kg	10	NONE	-	-	< 10	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	< 10	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	< 10	-	-
Isodrin	µg/kg	20	NONE	-	-	< 20	-	-
Malathion	µg/kg	10	NONE	-	-	< 10	-	-
Methacrifos	µg/kg	10	NONE	-	-	< 10	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	< 20	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	< 10	-	-
Omethoate	µg/kg	20	NONE	-	-	< 20	-	-
Parathion	µg/kg	10	NONE	-	-	< 10	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	< 10	-	-
Pendimethalin	µg/kg	10	NONE	-	-	< 10	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	< 10	-	-



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550245	1550246	1550247	1550248	1550249
Sample Reference				WS127	HP170	HP171	HP172	HP173
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.52	0.00-0.60	0.00-0.36	0.00-0.19
Date Sampled				29/06/2020	29/06/2020	29/06/2020	29/06/2020	29/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	-	-	< 10	-	-
Phorate	µg/kg	10	NONE	-	-	< 10	-	-
Phosalone	µg/kg	10	NONE	-	-	< 10	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	< 10	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	< 10	-	-
Propetamphos	µg/kg	10	NONE	-	-	< 10	-	-
Propyzamide	µg/kg	10	NONE	-	-	< 10	-	-
Tecnazene	µg/kg	10	NONE	-	-	< 10	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	< 10	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	< 10	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	< 10	-	-
Trifluralin	µg/kg	10	NONE	-	-	< 10	-	-



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number	1550245			1550246			1550247			1550248			1550249		
Sample Reference	WS127			HP170			HP171			HP172			HP173		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.52			0.00-0.60			0.00-0.36			0.00-0.19		
Date Sampled	29/06/2020			29/06/2020			29/06/2020			29/06/2020			29/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Herbicides

Herbicide	Units	Limit of detection	Accreditation Status	1550245	1550246	1550247	1550248	1550249
Aldicarb	µg/kg	10	NONE	-	-	< 10	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	< 10	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	< 50	-	-
Atrazine	µg/kg	10	NONE	-	-	< 10	-	-
Carbaryl	µg/kg	10	NONE	-	-	< 10	-	-
Carbofuran	µg/kg	10	NONE	-	-	< 10	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	< 20	-	-
Chlortoluron	µg/kg	10	NONE	-	-	< 10	-	-
Cyanazine	µg/kg	10	NONE	-	-	< 10	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	< 50	-	-
Diuron	µg/kg	10	NONE	-	-	< 10	-	-
Fluometuron	µg/kg	10	NONE	-	-	< 10	-	-
Isoproturon	µg/kg	10	NONE	-	-	< 10	-	-
Linuron	µg/kg	20	NONE	-	-	< 20	-	-
Methiocarb	µg/kg	10	NONE	-	-	< 10	-	-
Methomyl	µg/kg	10	NONE	-	-	< 10	-	-
Oxamyl	µg/kg	10	NONE	-	-	< 10	-	-
Prometryn	µg/kg	10	NONE	-	-	< 10	-	-
Propazine	µg/kg	10	NONE	-	-	< 10	-	-
Propoxur	µg/kg	10	NONE	-	-	< 10	-	-
Siduron	µg/kg	10	NONE	-	-	< 10	-	-
Simazine	µg/kg	10	NONE	-	-	< 10	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	< 10	-	-
Terbuthylazine	µg/kg	10	NONE	-	-	< 10	-	-
Terbutryn	µg/kg	10	NONE	-	-	< 10	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	< 10	-	-
Trietazine	µg/kg	10	NONE	-	-	< 10	-	-



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550250				
Sample Reference				HP174				
Sample Number				None Supplied				
Depth (m)				0.00-0.20				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	20				
Total mass of sample received	kg	0.001	NONE	1.0				

Asbestos in Soil	Type	N/A	ISO 17025	-				
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.9				
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-				
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-				
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-				
Organic Matter	%	0.1	MCERTS	-				

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-				
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14				
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4				
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2				
Chromium (III)	mg/kg	1	NONE	36				
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36				
Copper (aqua regia extractable)	mg/kg	1	MCERTS	59				
Lead (aqua regia extractable)	mg/kg	1	MCERTS	52				
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3				
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31				
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0				
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	130				

Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550250				
Sample Reference				HP174				
Sample Number				None Supplied				
Depth (m)				0.00-0.20				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-				
Phenol	mg/kg	0.2	ISO 17025	-				
2-Chlorophenol	mg/kg	0.1	MCERTS	-				
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-				
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-				
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-				
2-Methylphenol	mg/kg	0.3	MCERTS	-				
Hexachloroethane	mg/kg	0.05	MCERTS	-				
Nitrobenzene	mg/kg	0.3	MCERTS	-				
4-Methylphenol	mg/kg	0.2	NONE	-				
Isophorone	mg/kg	0.2	MCERTS	-				
2-Nitrophenol	mg/kg	0.3	MCERTS	-				
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-				
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-				
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-				
Naphthalene	mg/kg	0.05	MCERTS	-				
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-				
4-Chloroaniline	mg/kg	0.1	NONE	-				
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-				
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-				
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-				
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-				
2-Methylnaphthalene	mg/kg	0.1	NONE	-				
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-				
Dimethylphthalate	mg/kg	0.1	MCERTS	-				
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-				
Acenaphthylene	mg/kg	0.05	MCERTS	-				
Acenaphthene	mg/kg	0.05	MCERTS	-				
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-				
Dibenzofuran	mg/kg	0.2	MCERTS	-				
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-				
Diethyl phthalate	mg/kg	0.2	MCERTS	-				
4-Nitroaniline	mg/kg	0.2	MCERTS	-				
Fluorene	mg/kg	0.05	MCERTS	-				
Azobenzene	mg/kg	0.3	MCERTS	-				
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-				
Hexachlorobenzene	mg/kg	0.3	MCERTS	-				
Phenanthrene	mg/kg	0.05	MCERTS	-				
Anthracene	mg/kg	0.05	MCERTS	-				
Carbazole	mg/kg	0.3	MCERTS	-				
Dibutyl phthalate	mg/kg	0.2	MCERTS	-				
Anthraquinone	mg/kg	0.3	MCERTS	-				
Fluoranthene	mg/kg	0.05	MCERTS	-				
Pyrene	mg/kg	0.05	MCERTS	-				
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-				
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-				
Chrysene	mg/kg	0.05	MCERTS	-				
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-				
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-				
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-				
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-				



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550250				
Sample Reference				HP174				
Sample Number				None Supplied				
Depth (m)				0.00-0.20				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				
SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				

Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550250				
Sample Reference				HP174				
Sample Number				None Supplied				
Depth (m)				0.00-0.20				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Pesticides								
Alachlor	µg/kg	10	NONE	-				
Aldrin	µg/kg	10	NONE	-				
Azinphos-ethyl	µg/kg	10	NONE	-				
Azinphos-methyl	µg/kg	10	NONE	-				
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-				
BHC-beta	µg/kg	10	NONE	-				
BHC-delta	µg/kg	10	NONE	-				
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-				
Bifenthrin	µg/kg	10	NONE	-				
Carbophenothion	µg/kg	10	NONE	-				
Chlordane-cis	µg/kg	10	NONE	-				
Chlordane-trans	µg/kg	10	NONE	-				
Chlorfenvinphos	µg/kg	10	NONE	-				
Chlorothalonil	µg/kg	20	NONE	-				
Chlorpyrifos	µg/kg	10	NONE	-				
Cyfluthrin (Sum)	µg/kg	10	NONE	-				
Cyhalothrin (Lambda)	µg/kg	10	NONE	-				
Cypermethrin (Sum)	µg/kg	10	NONE	-				
DDD-o,p'	µg/kg	10	NONE	-				
DDD-p,p'	µg/kg	10	NONE	-				
DDE-o,p'	µg/kg	10	NONE	-				
DDE-p,p'	µg/kg	10	NONE	-				
DDT-o,p'	µg/kg	10	NONE	-				
DDT-p,p'	µg/kg	10	NONE	-				
Deltamethrin	µg/kg	10	NONE	-				
Demeton-O	µg/kg	10	NONE	-				
Demeton-S	µg/kg	10	NONE	-				
Diazinon	µg/kg	10	NONE	-				
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-				
Dichlorvos	µg/kg	10	NONE	-				
Dieldrin	µg/kg	10	NONE	-				
Dimethoate	µg/kg	10	NONE	-				
Dimethylvinphos	µg/kg	10	NONE	-				
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-				
Endosulfan II (beta isomer)	µg/kg	10	NONE	-				
Endosulfan sulfate	µg/kg	10	NONE	-				
Endrin	µg/kg	20	NONE	-				
Endrin aldehyde	µg/kg	10	NONE	-				
Endrin ketone	µg/kg	10	NONE	-				
Ethion	µg/kg	10	NONE	-				
Etrimfos	µg/kg	10	NONE	-				
Fenitrothion	µg/kg	10	NONE	-				
Fenthion	µg/kg	10	NONE	-				
Fenvalerate (Sum)	µg/kg	10	NONE	-				
Heptachlor	µg/kg	10	NONE	-				
Heptachlor exo-epoxide	µg/kg	10	NONE	-				
Hexachlorobenzene	µg/kg	10	NONE	-				
Hexachlorobutadiene	µg/kg	10	NONE	-				
Isodrin	µg/kg	20	NONE	-				
Malathion	µg/kg	10	NONE	-				
Methacrifos	µg/kg	10	NONE	-				
Methoxychlor, p,p'	µg/kg	20	NONE	-				
Mevinphos, E+Z	µg/kg	10	NONE	-				
Omethoate	µg/kg	20	NONE	-				
Parathion	µg/kg	10	NONE	-				
Parathion-methyl	µg/kg	10	NONE	-				
Pendimethalin	µg/kg	10	NONE	-				
Pentachlorobenzene	µg/kg	10	NONE	-				
Permethrin, Cis-	µg/kg	10	NONE	-				



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550250				
Sample Reference				HP174				
Sample Number				None Supplied				
Depth (m)				0.00-0.20				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	-				
Phorate	µg/kg	10	NONE	-				
Phosalone	µg/kg	10	NONE	-				
Phosphamidon (Sum)	µg/kg	10	NONE	-				
Pirimiphos-ethyl	µg/kg	10	NONE	-				
Pirimiphos-methyl	µg/kg	10	NONE	-				
Propetamphos	µg/kg	10	NONE	-				
Propyzamide	µg/kg	10	NONE	-				
Tecnazene	µg/kg	10	NONE	-				
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-				
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-				
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-				
Trifluralin	µg/kg	10	NONE	-				



Analytical Report Number: 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Lab Sample Number				1550250				
Sample Reference				HP174				
Sample Number				None Supplied				
Depth (m)				0.00-0.20				
Date Sampled				29/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Herbicides								
Aldicarb	µg/kg	10	NONE	-				
Aldicarb Sulfone	µg/kg	10	NONE	-				
Aldicarb Sulfoxide	µg/kg	50	NONE	-				
Atrazine	µg/kg	10	NONE	-				
Carbaryl	µg/kg	10	NONE	-				
Carbofuran	µg/kg	10	NONE	-				
Carbofuran, 3-OH	µg/kg	20	NONE	-				
Chlortoluron	µg/kg	10	NONE	-				
Cyanazine	µg/kg	10	NONE	-				
Diflufenzuron	µg/kg	50	NONE	-				
Diuron	µg/kg	10	NONE	-				
Fluometuron	µg/kg	10	NONE	-				
Isoproturon	µg/kg	10	NONE	-				
Linuron	µg/kg	20	NONE	-				
Methiocarb	µg/kg	10	NONE	-				
Methomyl	µg/kg	10	NONE	-				
Oxamyl	µg/kg	10	NONE	-				
Prometryn	µg/kg	10	NONE	-				
Propazine	µg/kg	10	NONE	-				
Propoxur	µg/kg	10	NONE	-				
Siduron	µg/kg	10	NONE	-				
Simazine	µg/kg	10	NONE	-				
Tebuthiuron	µg/kg	10	NONE	-				
Terbutylazine	µg/kg	10	NONE	-				
Terbutryn	µg/kg	10	NONE	-				
Thiadiazuron	µg/kg	10	NONE	-				
Trietazine	µg/kg	10	NONE	-				



Analytical Report Number : 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

* 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 *
1550245	WS127	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1550246	HP170	None Supplied	0.00-0.52	Brown loam and clay with gravel and vegetation.
1550247	HP171	None Supplied	0.00-0.60	Brown loam and clay with gravel and vegetation.
1550248	HP172	None Supplied	0.00-0.36	Brown loam and clay with gravel and vegetation.
1550249	HP173	None Supplied	0.00-0.19	Brown loam and clay with gravel and vegetation.
1550250	HP174	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-17271

Project / Site name: Area 3, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.



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Analytical Report Number : 20-15986

Replaces Analytical Report Number : 20-15986, issue no. 2

Additional analysis undertaken.

Project / Site name:	Area 13, The Lanes, Penwortham	Samples received on:	24/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	24/06/2020
Your order number:		Analysis completed by:	15/07/2020
Report Issue Number:	3	Report issued on:	16/07/2020
Samples Analysed:	13 soil samples		

Signed: *Karolina Marek*

Karolina Marek
 PL Head of 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

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

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543665			1543666			1543667			1543668			1543669		
Sample Reference	WS101			WS102			WS104			WS106			WS107		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.35			0.00-0.35			0.30-1.00			0.00-0.30			0.00-0.25		
Date Sampled	12/06/2020			12/06/2020			15/06/2020			11/06/2020			12/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	8.0	9.2	16	10	8.2							
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0							

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	Not-detected	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.1	6.4	8.0	6.6	6.4
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	20	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	0.0098	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	9.8	-
Organic Matter	%	0.1	MCERTS	-	-	-	7.6	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	0.27	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	0.29	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	3.1	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	0.82	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	3.4	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	3.1	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	1.9	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	1.2	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	1.8	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.50	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	1.4	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	0.69	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.24	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	0.85	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	19.5	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	25	12	7.3	17	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	< 0.2	0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	31	32	44	35	35
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	33	45	35	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	66	32	28	40	29
Lead (aqua regia extractable)	mg/kg	1	MCERTS	73	45	18	85	54
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	0.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	38	28	50	29	25
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	96	84	66	76	140

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543665				1543666				1543667				1543668				1543669			
Sample Reference	WS101				WS102				WS104				WS106				WS107			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.35				0.00-0.35				0.30-1.00				0.00-0.30				0.00-0.25			
Date Sampled	12/06/2020				12/06/2020				15/06/2020				11/06/2020				12/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs																			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	1543665	1543666	1543667	1543668	1543669	1543665	1543666	1543667	1543668	1543669	1543665	1543666	1543667	1543668	1543669	
Aniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.82	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.1	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.50	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.69	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85	-



Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543665	1543666	1543667	1543668	1543669
Sample Reference	WS101	WS102	WS104	WS106	WS107
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.35	0.00-0.35	0.30-1.00	0.00-0.30	0.00-0.25
Date Sampled	12/06/2020	12/06/2020	15/06/2020	11/06/2020	12/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match	Units	Limit of detection	Accreditation Status	1543665	1543666	1543667	1543668	1543669
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Tetracosane	-
SVOC % Match	%	N/A	NONE	-	-	-	-	97	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	9,10-Dimethylanthracene	-
SVOC % Match	%	N/A	NONE	-	-	-	-	96	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Pyrene, 1-methyl-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	96	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	4-hydroxybenzaldehyde	-
SVOC % Match	%	N/A	NONE	-	-	-	-	95	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Cyclotetracosane	-
SVOC % Match	%	N/A	NONE	-	-	-	-	95	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Oxirane, hexadecyl-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	95	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	1-Nonadecene	-
SVOC % Match	%	N/A	NONE	-	-	-	-	94	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1543665	1543666	1543667	1543668	1543669
Alachlor	µg/kg	10	NONE	-	-	-	< 10	-
Aldrin	µg/kg	10	NONE	-	-	-	< 10	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	< 10	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	< 10	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	< 10	-
BHC-beta	µg/kg	10	NONE	-	-	-	< 10	-
BHC-delta	µg/kg	10	NONE	-	-	-	< 10	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	< 10	-
Bifenthrin	µg/kg	10	NONE	-	-	-	< 10	-
Carbophenothion	µg/kg	10	NONE	-	-	-	< 10	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	< 10	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	< 10	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	< 10	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	< 20	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	< 10	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	< 10	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	< 10	-
Deltamethrin	µg/kg	10	NONE	-	-	-	< 10	-
Demeton-O	µg/kg	10	NONE	-	-	-	< 10	-
Demeton-S	µg/kg	10	NONE	-	-	-	< 10	-
Diazinon	µg/kg	10	NONE	-	-	-	< 10	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	< 10	-
Dichlorvos	µg/kg	10	NONE	-	-	-	< 10	-
Dieldrin	µg/kg	10	NONE	-	-	-	< 10	-
Dimethoate	µg/kg	10	NONE	-	-	-	< 10	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	< 10	-



Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543665	1543666	1543667	1543668	1543669
Sample Reference				WS101	WS102	WS104	WS106	WS107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.35	0.00-0.35	0.30-1.00	0.00-0.30	0.00-0.25
Date Sampled				12/06/2020	12/06/2020	15/06/2020	11/06/2020	12/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	< 10	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	< 10	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	< 10	-
Endrin	µg/kg	20	NONE	-	-	-	< 20	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	< 10	-
Endrin ketone	µg/kg	10	NONE	-	-	-	< 10	-
Ethion	µg/kg	10	NONE	-	-	-	< 10	-
Etrimfos	µg/kg	10	NONE	-	-	-	< 10	-
Fenitrothion	µg/kg	10	NONE	-	-	-	< 10	-
Fenthion	µg/kg	10	NONE	-	-	-	< 10	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
Heptachlor	µg/kg	10	NONE	-	-	-	< 10	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	< 10	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	< 10	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	< 10	-
Isodrin	µg/kg	20	NONE	-	-	-	< 20	-
Malathion	µg/kg	10	NONE	-	-	-	< 10	-
Methacrifos	µg/kg	10	NONE	-	-	-	< 10	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	< 20	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	< 10	-
Omethoate	µg/kg	20	NONE	-	-	-	< 20	-
Parathion	µg/kg	10	NONE	-	-	-	< 10	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	< 10	-
Pendimethalin	µg/kg	10	NONE	-	-	-	< 10	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	< 10	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	< 10	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	< 10	-
Phorate	µg/kg	10	NONE	-	-	-	< 10	-
Phosalone	µg/kg	10	NONE	-	-	-	< 10	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	< 10	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	< 10	-
Propetamphos	µg/kg	10	NONE	-	-	-	< 10	-
Propyzamide	µg/kg	10	NONE	-	-	-	< 10	-
Tecnazene	µg/kg	10	NONE	-	-	-	< 10	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	< 10	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	< 10	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	< 10	-
Trifluralin	µg/kg	10	NONE	-	-	-	< 10	-



Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543665			1543666		1543667		1543668		1543669	
Sample Reference	WS101			WS102		WS104		WS106		WS107	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.35			0.00-0.35		0.30-1.00		0.00-0.30		0.00-0.25	
Date Sampled	12/06/2020			12/06/2020		15/06/2020		11/06/2020		12/06/2020	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								

Herbicides

Herbicide	Units	Limit of detection	Accreditation Status	1543665	1543666	1543667	1543668	1543669
Aldicarb	µg/kg	10	NONE	-	-	-	< 10	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	< 10	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	< 50	-
Atrazine	µg/kg	10	NONE	-	-	-	< 10	-
Carbaryl	µg/kg	10	NONE	-	-	-	< 10	-
Carbofuran	µg/kg	10	NONE	-	-	-	< 10	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	< 20	-
Chlortoluron	µg/kg	10	NONE	-	-	-	< 10	-
Cyanazine	µg/kg	10	NONE	-	-	-	< 10	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	< 50	-
Diuron	µg/kg	10	NONE	-	-	-	< 10	-
Fluometuron	µg/kg	10	NONE	-	-	-	< 10	-
Isoproturon	µg/kg	10	NONE	-	-	-	< 10	-
Linuron	µg/kg	20	NONE	-	-	-	< 20	-
Methiocarb	µg/kg	10	NONE	-	-	-	< 10	-
Methomyl	µg/kg	10	NONE	-	-	-	< 10	-
Oxamyl	µg/kg	10	NONE	-	-	-	< 10	-
Prometryn	µg/kg	10	NONE	-	-	-	< 10	-
Propazine	µg/kg	10	NONE	-	-	-	< 10	-
Propoxur	µg/kg	10	NONE	-	-	-	< 10	-
Siduron	µg/kg	10	NONE	-	-	-	< 10	-
Simazine	µg/kg	10	NONE	-	-	-	< 10	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	< 10	-
Terbuthylazine	µg/kg	10	NONE	-	-	-	< 10	-
Terbutryn	µg/kg	10	NONE	-	-	-	< 10	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	< 10	-
Trietazine	µg/kg	10	NONE	-	-	-	< 10	-

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543670	1543671	1543672	1543673	1543674			
Sample Reference	WS109	WS110	WS112	WS113	WS115			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.38	0.00-0.23	0.00-0.20	0.00-0.46	0.00-0.20			
Date Sampled	12/06/2020	12/06/2020	15/06/2020	15/06/2020	15/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	10	14	8.2	8.4	9.6
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.7	6.3	7.1	6.8	5.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	16	12	23	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	< 0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	31	29	34	34	33
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	30	34	34	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29	30	36	63	35
Lead (aqua regia extractable)	mg/kg	1	MCERTS	46	80	61	93	66
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	28	27	28	30	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	69	91	76	84	67



4041



Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543670			1543671	1543672	1543673	1543674
Sample Reference	WS109			WS110	WS112	WS113	WS115
Sample Number	None Supplied			None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.38			0.00-0.23	0.00-0.20	0.00-0.46	0.00-0.20
Date Sampled	12/06/2020			12/06/2020	15/06/2020	15/06/2020	15/06/2020
Time Taken	None Supplied			None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
SVOCs							
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	1.1	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	0.96	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.63	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	0.44	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.64	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.25	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.47	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.28	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.33	-	< 0.05

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543670			1543671			1543672			1543673			1543674		
Sample Reference	WS109			WS110			WS112			WS113			WS115		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.38			0.00-0.23			0.00-0.20			0.00-0.46			0.00-0.20		
Date Sampled	12/06/2020			12/06/2020			15/06/2020			15/06/2020			15/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match	Units	Limit of detection	Accreditation Status	1543670	1543671	1543672	1543673	1543674
SVOCs TICs Compound Name		N/A	NONE	-	-	Eicosane	-	-	Eicosane
SVOC % Match	%	N/A	NONE	-	-	99	-	-	96
SVOCs TICs Compound Name		N/A	NONE	-	-	Octadecane	-	-	Heptadecane
SVOC % Match	%	N/A	NONE	-	-	96	-	-	95
SVOCs TICs Compound Name		N/A	NONE	-	-	Oxirane, heptadecyl-	-	-	Octadecanal
SVOC % Match	%	N/A	NONE	-	-	96	-	-	93
SVOCs TICs Compound Name		N/A	NONE	-	-	Hexadecane	-	-	
SVOC % Match	%	N/A	NONE	-	-	96	-	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	1-Docosene	-	-	
SVOC % Match	%	N/A	NONE	-	-	93	-	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	Heptadecane, 9-octyl-	-	-	
SVOC % Match	%	N/A	NONE	-	-	93	-	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	Cyclopentasiloxane, decamethyl-	-	-	
SVOC % Match	%	N/A	NONE	-	-	91	-	-	

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1543670	1543671	1543672	1543673	1543674
Alachlor	µg/kg	10	NONE	-	< 10	-	-	< 10
Aldrin	µg/kg	10	NONE	-	< 10	-	-	< 10
Azinphos-ethyl	µg/kg	10	NONE	-	< 10	-	-	< 10
Azinphos-methyl	µg/kg	10	NONE	-	< 10	-	-	< 10
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	< 10	-	-	< 10
BHC-beta	µg/kg	10	NONE	-	< 10	-	-	< 10
BHC-delta	µg/kg	10	NONE	-	< 10	-	-	< 10
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	< 10	-	-	< 10
Bifenthrin	µg/kg	10	NONE	-	< 10	-	-	< 10
Carbophenothion	µg/kg	10	NONE	-	< 10	-	-	< 10
Chlordane-cis	µg/kg	10	NONE	-	< 10	-	-	< 10
Chlordane-trans	µg/kg	10	NONE	-	< 10	-	-	< 10
Chlorfenvinphos	µg/kg	10	NONE	-	< 10	-	-	< 10
Chlorothalonil	µg/kg	20	NONE	-	< 20	-	-	< 20
Chlorpyrifos	µg/kg	10	NONE	-	< 10	-	-	< 10
Cyfluthrin (Sum)	µg/kg	10	NONE	-	< 10	-	-	< 10
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	< 10	-	-	< 10
Cypermethrin (Sum)	µg/kg	10	NONE	-	< 10	-	-	< 10
DDD-o,p'	µg/kg	10	NONE	-	< 10	-	-	< 10
DDD-p,p'	µg/kg	10	NONE	-	< 10	-	-	< 10
DDE-o,p'	µg/kg	10	NONE	-	< 10	-	-	< 10
DDE-p,p'	µg/kg	10	NONE	-	< 10	-	-	< 10
DDT-o,p'	µg/kg	10	NONE	-	< 10	-	-	< 10
DDT-p,p'	µg/kg	10	NONE	-	< 10	-	-	< 10
Deltamethrin	µg/kg	10	NONE	-	< 10	-	-	< 10
Demeton-O	µg/kg	10	NONE	-	< 10	-	-	< 10
Demeton-S	µg/kg	10	NONE	-	< 10	-	-	< 10
Diazinon	µg/kg	10	NONE	-	< 10	-	-	< 10
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	< 10	-	-	< 10
Dichlorvos	µg/kg	10	NONE	-	< 10	-	-	< 10
Dieldrin	µg/kg	10	NONE	-	< 10	-	-	< 10
Dimethoate	µg/kg	10	NONE	-	< 10	-	-	< 10
Dimethylvinphos	µg/kg	10	NONE	-	< 10	-	-	< 10

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543670	1543671	1543672	1543673	1543674
Sample Reference				WS109	WS110	WS112	WS113	WS115
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.38	0.00-0.23	0.00-0.20	0.00-0.46	0.00-0.20
Date Sampled				12/06/2020	12/06/2020	15/06/2020	15/06/2020	15/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	< 10	-	-	< 10
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	< 10	-	-	< 10
Endosulfan sulfate	µg/kg	10	NONE	-	< 10	-	-	< 10
Endrin	µg/kg	20	NONE	-	< 20	-	-	< 20
Endrin aldehyde	µg/kg	10	NONE	-	< 10	-	-	< 10
Endrin ketone	µg/kg	10	NONE	-	< 10	-	-	< 10
Ethion	µg/kg	10	NONE	-	< 10	-	-	< 10
Etrinfos	µg/kg	10	NONE	-	< 10	-	-	< 10
Fenitrothion	µg/kg	10	NONE	-	< 10	-	-	< 10
Fenthion	µg/kg	10	NONE	-	< 10	-	-	< 10
Fenvalerate (Sum)	µg/kg	10	NONE	-	< 10	-	-	< 10
Heptachlor	µg/kg	10	NONE	-	< 10	-	-	< 10
Heptachlor exo-epoxide	µg/kg	10	NONE	-	< 10	-	-	< 10
Hexachlorobenzene	µg/kg	10	NONE	-	< 10	-	-	< 10
Hexachlorobutadiene	µg/kg	10	NONE	-	< 10	-	-	< 10
Isodrin	µg/kg	20	NONE	-	< 20	-	-	< 20
Malathion	µg/kg	10	NONE	-	< 10	-	-	< 10
Methacrifos	µg/kg	10	NONE	-	< 10	-	-	< 10
Methoxychlor, p,p'	µg/kg	20	NONE	-	< 20	-	-	< 20
Mevinphos, E+Z	µg/kg	10	NONE	-	< 10	-	-	< 10
Omethoate	µg/kg	20	NONE	-	< 20	-	-	< 20
Parathion	µg/kg	10	NONE	-	< 10	-	-	< 10
Parathion-methyl	µg/kg	10	NONE	-	< 10	-	-	< 10
Pendimethalin	µg/kg	10	NONE	-	< 10	-	-	< 10
Pentachlorobenzene	µg/kg	10	NONE	-	< 10	-	-	< 10
Permethrin, Cis-	µg/kg	10	NONE	-	< 10	-	-	< 10
Permethrin, Trans-	µg/kg	10	NONE	-	< 10	-	-	< 10
Phorate	µg/kg	10	NONE	-	< 10	-	-	< 10
Phosalone	µg/kg	10	NONE	-	< 10	-	-	< 10
Phosphamidon (Sum)	µg/kg	10	NONE	-	< 10	-	-	< 10
Pirimiphos-ethyl	µg/kg	10	NONE	-	< 10	-	-	< 10
Pirimiphos-methyl	µg/kg	10	NONE	-	< 10	-	-	< 10
Propetamphos	µg/kg	10	NONE	-	< 10	-	-	< 10
Propyzamide	µg/kg	10	NONE	-	< 10	-	-	< 10
Tecnazene	µg/kg	10	NONE	-	< 10	-	-	< 10
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	< 10	-	-	< 10
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	< 10	-	-	< 10
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	< 10	-	-	< 10
Trifluralin	µg/kg	10	NONE	-	< 10	-	-	< 10

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543670	1543671	1543672	1543673	1543674
Sample Reference				WS109	WS110	WS112	WS113	WS115
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.38	0.00-0.23	0.00-0.20	0.00-0.46	0.00-0.20
Date Sampled				12/06/2020	12/06/2020	15/06/2020	15/06/2020	15/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Herbicides								
Aldicarb	µg/kg	10	NONE	-	< 10	-	-	< 10
Aldicarb Sulfone	µg/kg	10	NONE	-	< 10	-	-	< 10
Aldicarb Sulfoxide	µg/kg	50	NONE	-	< 50	-	-	< 50
Atrazine	µg/kg	10	NONE	-	< 10	-	-	< 10
Carbaryl	µg/kg	10	NONE	-	< 10	-	-	< 10
Carbofuran	µg/kg	10	NONE	-	< 10	-	-	< 10
Carbofuran, 3-OH	µg/kg	20	NONE	-	< 20	-	-	< 20
Chlortoluron	µg/kg	10	NONE	-	< 10	-	-	< 10
Cyanazine	µg/kg	10	NONE	-	< 10	-	-	< 10
Diflufenzuron	µg/kg	50	NONE	-	< 50	-	-	< 50
Diuron	µg/kg	10	NONE	-	< 10	-	-	< 10
Fluometuron	µg/kg	10	NONE	-	< 10	-	-	< 10
Isoproturon	µg/kg	10	NONE	-	< 10	-	-	< 10
Linuron	µg/kg	20	NONE	-	< 20	-	-	< 20
Methiocarb	µg/kg	10	NONE	-	< 10	-	-	< 10
Methomyl	µg/kg	10	NONE	-	< 10	-	-	< 10
Oxamyl	µg/kg	10	NONE	-	< 10	-	-	< 10
Prometryn	µg/kg	10	NONE	-	< 10	-	-	< 10
Propazine	µg/kg	10	NONE	-	< 10	-	-	< 10
Propoxur	µg/kg	10	NONE	-	< 10	-	-	< 10
Siduron	µg/kg	10	NONE	-	< 10	-	-	< 10
Simazine	µg/kg	10	NONE	-	< 10	-	-	< 10
Tebuthiuron	µg/kg	10	NONE	-	< 10	-	-	< 10
Terbuthylazine	µg/kg	10	NONE	-	< 10	-	-	< 10
Terbutryn	µg/kg	10	NONE	-	< 10	-	-	< 10
Thiadiazuron	µg/kg	10	NONE	-	< 10	-	-	< 10
Trietazine	µg/kg	10	NONE	-	< 10	-	-	< 10

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1543675			1543676			1543677		
Sample Reference	WS117			WS119			WS121		
Sample Number	None Supplied			None Supplied			None Supplied		
Depth (m)	0.30-1.00			0.00-0.38			0.00-0.50		
Date Sampled	15/06/2020			15/06/2020			15/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status						
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	10	8.9	10			
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0			

Asbestos in Soil	Type	N/A	ISO 17025	-	-	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.9	6.5	6.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	40
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	0.020
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	20.0
Organic Matter	%	0.1	MCERTS	-	-	7.7

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	-	-	0.80
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.84
Pyrene	mg/kg	0.05	MCERTS	-	-	0.81
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.50
Chrysene	mg/kg	0.05	MCERTS	-	-	0.46
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.62
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.42
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.25
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.26

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	5.15

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.0	16	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	14	29	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	14	29	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.4	48	56
Lead (aqua regia extractable)	mg/kg	1	MCERTS	5.6	82	72
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	25	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	20	83	93



4041



Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543675	1543676	1543677		
Sample Reference				WS117	WS119	WS121		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.30-1.00	0.00-0.38	0.00-0.50		
Date Sampled				15/06/2020	15/06/2020	15/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1		
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2		
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1		
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1		
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3		
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05		
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3		
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2		
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2		
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3		
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3		
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1		
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2		
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1		
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1		
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1		
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05		
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2		
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3		
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2		
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2		
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05		
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2		
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3		
Phenanthrene	mg/kg	0.05	MCERTS	-	-	0.80		
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05		
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3		
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2		
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3		
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.84		
Pyrene	mg/kg	0.05	MCERTS	-	-	0.81		
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.50		
Chrysene	mg/kg	0.05	MCERTS	-	-	0.46		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.62		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.19		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.42		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.25		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.26		

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543675	1543676	1543677		
Sample Reference				WS117	WS119	WS121		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.30-1.00	0.00-0.38	0.00-0.50		
Date Sampled				15/06/2020	15/06/2020	15/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	17-Pentatriacontene		
SVOC % Match	%	N/A	NONE	-	-	98		
SVOCs TICs Compound Name		N/A	NONE	-	-	Oxirane, tetradecyl-		
SVOC % Match	%	N/A	NONE	-	-	98		
SVOCs TICs Compound Name		N/A	NONE	-	-	Eicosane		
SVOC % Match	%	N/A	NONE	-	-	97		
SVOCs TICs Compound Name		N/A	NONE	-	-	Oxirane, hexadecyl-		
SVOC % Match	%	N/A	NONE	-	-	96		
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			

Pesticides

Alachlor	µg/kg	10	NONE	-	-	< 10		
Aldrin	µg/kg	10	NONE	-	-	< 10		
Azinphos-ethyl	µg/kg	10	NONE	-	-	< 10		
Azinphos-methyl	µg/kg	10	NONE	-	-	< 10		
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	< 10		
BHC-beta	µg/kg	10	NONE	-	-	< 10		
BHC-delta	µg/kg	10	NONE	-	-	< 10		
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	< 10		
Bifenthrin	µg/kg	10	NONE	-	-	< 10		
Carbophenothion	µg/kg	10	NONE	-	-	< 10		
Chlordane-cis	µg/kg	10	NONE	-	-	< 10		
Chlordane-trans	µg/kg	10	NONE	-	-	< 10		
Chlorfenvinphos	µg/kg	10	NONE	-	-	< 10		
Chlorothalonil	µg/kg	20	NONE	-	-	< 20		
Chlorpyrifos	µg/kg	10	NONE	-	-	< 10		
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	< 10		
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	< 10		
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	< 10		
DDD-o,p'	µg/kg	10	NONE	-	-	< 10		
DDD-p,p'	µg/kg	10	NONE	-	-	< 10		
DDE-o,p'	µg/kg	10	NONE	-	-	< 10		
DDE-p,p'	µg/kg	10	NONE	-	-	< 10		
DDT-o,p'	µg/kg	10	NONE	-	-	< 10		
DDT-p,p'	µg/kg	10	NONE	-	-	< 10		
Deltamethrin	µg/kg	10	NONE	-	-	< 10		
Demeton-O	µg/kg	10	NONE	-	-	< 10		
Demeton-S	µg/kg	10	NONE	-	-	< 10		
Diazinon	µg/kg	10	NONE	-	-	< 10		
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	< 10		
Dichlorvos	µg/kg	10	NONE	-	-	< 10		
Dieldrin	µg/kg	10	NONE	-	-	< 10		
Dimethoate	µg/kg	10	NONE	-	-	< 10		
Dimethylvinphos	µg/kg	10	NONE	-	-	< 10		

Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543675	1543676	1543677		
Sample Reference				WS117	WS119	WS121		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.30-1.00	0.00-0.38	0.00-0.50		
Date Sampled				15/06/2020	15/06/2020	15/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	< 10		
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	< 10		
Endosulfan sulfate	µg/kg	10	NONE	-	-	< 10		
Endrin	µg/kg	20	NONE	-	-	< 20		
Endrin aldehyde	µg/kg	10	NONE	-	-	< 10		
Endrin ketone	µg/kg	10	NONE	-	-	< 10		
Ethion	µg/kg	10	NONE	-	-	< 10		
Etrinfos	µg/kg	10	NONE	-	-	< 10		
Fenitrothion	µg/kg	10	NONE	-	-	< 10		
Fenthion	µg/kg	10	NONE	-	-	< 10		
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	< 10		
Heptachlor	µg/kg	10	NONE	-	-	< 10		
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	< 10		
Hexachlorobenzene	µg/kg	10	NONE	-	-	< 10		
Hexachlorobutadiene	µg/kg	10	NONE	-	-	< 10		
Isodrin	µg/kg	20	NONE	-	-	< 20		
Malathion	µg/kg	10	NONE	-	-	< 10		
Methacrifos	µg/kg	10	NONE	-	-	< 10		
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	< 20		
Mevinphos, E+Z	µg/kg	10	NONE	-	-	< 10		
Omethoate	µg/kg	20	NONE	-	-	< 20		
Parathion	µg/kg	10	NONE	-	-	< 10		
Parathion-methyl	µg/kg	10	NONE	-	-	< 10		
Pendimethalin	µg/kg	10	NONE	-	-	< 10		
Pentachlorobenzene	µg/kg	10	NONE	-	-	< 10		
Permethrin, Cis-	µg/kg	10	NONE	-	-	< 10		
Permethrin, Trans-	µg/kg	10	NONE	-	-	< 10		
Phorate	µg/kg	10	NONE	-	-	< 10		
Phosalone	µg/kg	10	NONE	-	-	< 10		
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	< 10		
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	< 10		
Pirimiphos-methyl	µg/kg	10	NONE	-	-	< 10		
Propetamphos	µg/kg	10	NONE	-	-	< 10		
Propyzamide	µg/kg	10	NONE	-	-	< 10		
Tecnazene	µg/kg	10	NONE	-	-	< 10		
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	< 10		
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	< 10		
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	< 10		
Trifluralin	µg/kg	10	NONE	-	-	< 10		



Analytical Report Number: 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1543675	1543676	1543677		
Sample Reference				WS117	WS119	WS121		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.30-1.00	0.00-0.38	0.00-0.50		
Date Sampled				15/06/2020	15/06/2020	15/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Herbicides								
Aldicarb	µg/kg	10	NONE	-	-	< 10		
Aldicarb Sulfone	µg/kg	10	NONE	-	-	< 10		
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	< 50		
Atrazine	µg/kg	10	NONE	-	-	< 10		
Carbaryl	µg/kg	10	NONE	-	-	< 10		
Carbofuran	µg/kg	10	NONE	-	-	< 10		
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	< 20		
Chlortoluron	µg/kg	10	NONE	-	-	< 10		
Cyanazine	µg/kg	10	NONE	-	-	< 10		
Diflufenzuron	µg/kg	50	NONE	-	-	< 50		
Diuron	µg/kg	10	NONE	-	-	< 10		
Fluometuron	µg/kg	10	NONE	-	-	< 10		
Isoproturon	µg/kg	10	NONE	-	-	< 10		
Linuron	µg/kg	20	NONE	-	-	< 20		
Methiocarb	µg/kg	10	NONE	-	-	< 10		
Methomyl	µg/kg	10	NONE	-	-	< 10		
Oxamyl	µg/kg	10	NONE	-	-	< 10		
Prometryn	µg/kg	10	NONE	-	-	< 10		
Propazine	µg/kg	10	NONE	-	-	< 10		
Propoxur	µg/kg	10	NONE	-	-	< 10		
Siduron	µg/kg	10	NONE	-	-	< 10		
Simazine	µg/kg	10	NONE	-	-	< 10		
Tebuthiuron	µg/kg	10	NONE	-	-	< 10		
Terbuthylazine	µg/kg	10	NONE	-	-	< 10		
Terbutryn	µg/kg	10	NONE	-	-	< 10		
Thiadiazuron	µg/kg	10	NONE	-	-	< 10		
Trietazine	µg/kg	10	NONE	-	-	< 10		



Analytical Report Number : 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

* 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 *
1543665	WS101	None Supplied	0.00-0.35	Brown loam and sand with gravel and vegetation.
1543666	WS102	None Supplied	0.00-0.35	Brown loam and sand with gravel and vegetation.
1543667	WS104	None Supplied	0.30-1.00	Brown clay with vegetation.
1543668	WS106	None Supplied	0.00-0.30	Brown loam and sand with vegetation and gravel.
1543669	WS107	None Supplied	0.00-0.25	Brown loam and clay with vegetation and gravel
1543670	WS109	None Supplied	0.00-0.38	Brown loam and sand with vegetation and gravel.
1543671	WS110	None Supplied	0.00-0.23	Brown loam and sand with vegetation and gravel.
1543672	WS112	None Supplied	0.00-0.20	Brown loam and clay with vegetation and gravel
1543673	WS113	None Supplied	0.00-0.46	Brown loam and sand with gravel and vegetation.
1543674	WS115	None Supplied	0.00-0.20	Brown loam and sand with gravel and vegetation.
1543675	WS117	None Supplied	0.30-1.00	Brown sand with gravel.
1543676	WS119	None Supplied	0.00-0.38	Brown sandy loam with vegetation and gravel
1543677	WS121	None Supplied	0.00-0.50	Brown sandy loam with vegetation and gravel

Analytical Report Number : 20-15986

Project / Site name: Area 13, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.



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Analytical Report Number : 20-15981

Project / Site name:	Area 14, The Lanes, Penwortham	Samples received on:	24/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	24/06/2020
Your order number:		Analysis completed by:	14/07/2020
Report Issue Number:	1	Report issued on:	15/07/2020
Samples Analysed:	4 soil samples		

Signed: 

Karolina Marek
PL Head of 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

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



Analytical Report Number: 20-15981

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1543632				1543633				1543634				1543635			
Sample Reference	WS126				WS128				WS129				WS132			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.25				0.25				0.20				0.25			
Date Sampled	16/06/2020				16/06/2020				16/06/2020				16/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status													
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	9.8	11	8.1	9.2									
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0									

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.6	5.8	7.0	5.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	68	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.034	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	33.9	-	-	-
Organic Matter	%	0.1	MCERTS	11	-	-	-

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	0.50	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	0.54	-	-	-
Pyrene	mg/kg	0.05	MCERTS	0.58	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.37	-	-	-
Chrysene	mg/kg	0.05	MCERTS	0.38	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.51	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.18	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.38	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.21	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.27	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.92	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.5	17	10	18
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	2.5	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	27	35	25	34
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	37	26	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	37	57	33	53
Lead (aqua regia extractable)	mg/kg	1	MCERTS	48	54	47	65
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	32	19	30
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	85	78	75	93

Analytical Report Number: 20-15981

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1543632			1543633			1543634			1543635		
Sample Reference	WS126			WS128			WS129			WS132		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.25			0.25			0.20			0.25		
Date Sampled	16/06/2020			16/06/2020			16/06/2020			16/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									

SVOCs

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	1543632	1543633	1543634	1543635
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-
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	-



Analytical Report Number: 20-15981

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1543632			1543633			1543634			1543635		
Sample Reference	WS126			WS128			WS129			WS132		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.25			0.25			0.20			0.25		
Date Sampled	16/06/2020			16/06/2020			16/06/2020			16/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	Eicosane	-	
SVOC % Match	%	N/A	NONE	-	-	98	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	Octadecane	-	
SVOC % Match	%	N/A	NONE	-	-	96	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	Hexadecane	-	
SVOC % Match	%	N/A	NONE	-	-	95	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	n-Decanoic acid	-	
SVOC % Match	%	N/A	NONE	-	-	93	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	1-(2,2-Dimethylcyclopropyl)-2-phenylacetylene	-	
SVOC % Match	%	N/A	NONE	-	-	93	-	



Analytical Report Number : 20-15981

Project / Site name: Area 14, The Lanes, Penwortham

* 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 *
1543632	WS126	None Supplied	0.25	Brown loam and clay with gravel and vegetation.
1543633	WS128	None Supplied	0.25	Brown loam and sand with gravel and vegetation.
1543634	WS129	None Supplied	0.20	Brown sandy loam with gravel and vegetation.
1543635	WS132	None Supplied	0.25	Brown sandy loam with gravel and vegetation.



Analytical Report Number : 20-15981

Project / Site name: Area 14, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.



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Analytical Report Number : 20-16533

Replaces Analytical Report Number : 20-16533, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 13, The Lanes, Penwortham	Samples received on:	29/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	29/06/2020
Your order number:		Analysis completed by:	09/07/2020
Report Issue Number:	2	Report issued on:	13/07/2020
Samples Analysed:	27 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546551				1546552		1546553		1546554		1546555	
Sample Reference	TP133				TP136		TP137		TP139		TP141	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.00-0.30		0.00-0.30		0.30-0.45	
Date Sampled	17/06/2020				18/06/2020		17/06/2020		18/06/2020		18/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	22	16	17	20	20	14	14	14	
Total mass of sample received	kg	0.001	NONE	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	

Asbestos in Soil	Type	N/A	ISO 17025								
				-	-	-	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.5	5.9	5.7	6.2	6.3
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.1	11	15	12	5.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	< 0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	21	25	32	26	28
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	25	32	26	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	31	29	34	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	51	53	49	61	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.6	< 0.3	0.7	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	22	26	21	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	2.5	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	62	75	62	75	20



4041



Environmental Science

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546551				1546552				1546553				1546554				1546555			
Sample Reference	TP133				TP136				TP137				TP139				TP141			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.30				0.00-0.30				0.00-0.30				0.30-0.45			
Date Sampled	17/06/2020				18/06/2020				17/06/2020				18/06/2020				18/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs

Compound	Units	Limit of detection	Accreditation Status	1546551	1546552	1546553	1546554	1546555
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546551	1546552	1546553	1546554	1546555
Sample Reference	TP133	TP136	TP137	TP139	TP141
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.30-0.45
Date Sampled	17/06/2020	18/06/2020	17/06/2020	18/06/2020	18/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match	N/A	NONE	-	-	-	-	-
	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Pesticides

Pesticide Name	Unit	Limit	Status	1546551	1546552	1546553	1546554	1546555
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546551	1546552	1546553	1546554	1546555
Sample Reference				TP133	TP136	TP137	TP139	TP141
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.30-0.45
Date Sampled				17/06/2020	18/06/2020	17/06/2020	18/06/2020	18/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbuthylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546556				1546557		1546558		1546559		1546560	
Sample Reference	TP142				TP144		TP145		TP147		TP149	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.40				0.00-0.30		0.00-0.28		0.00-0.32		0.00-0.30	
Date Sampled	18/06/2020				18/06/2020		18/06/2020		18/06/2020		22/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	38	10	10	10	13	10	10	10	
Total mass of sample received	kg	0.001	NONE	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.3	6.1	6.2	6.0	5.5
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	13	13	17	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	39	26	30	32	35
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	40	26	31	32	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	35	38	32	46	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	24	84	88	78	54
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.4	0.7	0.4
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	29	23	28	31	31
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	2.1	2.4	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	32	75	57	95	73

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546556	1546557	1546558	1546559	1546560
Sample Reference				TP142	TP144	TP145	TP147	TP149
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.40	0.00-0.30	0.00-0.28	0.00-0.32	0.00-0.30
Date Sampled				18/06/2020	18/06/2020	18/06/2020	18/06/2020	22/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.33	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.30	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	2.8	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.58	-	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.4	-	-	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	2.9	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.4	-	-	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.1	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.5	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.65	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.2	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.59	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.60	-	-	-



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546556			1546557			1546558			1546559			1546560		
Sample Reference	TP142			TP144			TP145			TP147			TP149		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.40			0.00-0.30			0.00-0.28			0.00-0.32			0.00-0.30		
Date Sampled	18/06/2020			18/06/2020			18/06/2020			18/06/2020			22/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	Oxirane, hexadecyl-	Oxirane, hexadecyl-			
SVOC % Match	%	N/A	NONE	95	96	-	-	-
SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	Oxirane, heptadecyl-				
SVOC % Match	%	N/A	NONE	94	-	-	-	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1546556	1546557	1546558	1546559	1546560
Alachlor	µg/kg	10	NONE	-	< 10	-	-	-
Aldrin	µg/kg	10	NONE	-	< 10	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	< 10	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	< 10	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	< 10	-	-	-
BHC-beta	µg/kg	10	NONE	-	< 10	-	-	-
BHC-delta	µg/kg	10	NONE	-	< 10	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	< 10	-	-	-
Bifenthrin	µg/kg	10	NONE	-	< 10	-	-	-
Carbophenothion	µg/kg	10	NONE	-	< 10	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	< 10	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	< 10	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	< 10	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	< 20	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	< 10	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	< 10	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	< 10	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	< 10	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	< 10	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	< 10	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	< 10	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	< 10	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	< 10	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	< 10	-	-	-
Deltamethrin	µg/kg	10	NONE	-	< 10	-	-	-
Demeton-O	µg/kg	10	NONE	-	< 10	-	-	-
Demeton-S	µg/kg	10	NONE	-	< 10	-	-	-
Diazinon	µg/kg	10	NONE	-	< 10	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	< 10	-	-	-
Dichlorvos	µg/kg	10	NONE	-	< 10	-	-	-
Dieldrin	µg/kg	10	NONE	-	< 10	-	-	-
Dimethoate	µg/kg	10	NONE	-	< 10	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	< 10	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	< 10	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	< 10	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	< 10	-	-	-
Endrin	µg/kg	20	NONE	-	< 20	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	< 10	-	-	-
Endrin ketone	µg/kg	10	NONE	-	< 10	-	-	-
Ethion	µg/kg	10	NONE	-	< 10	-	-	-
Etrinfos	µg/kg	10	NONE	-	< 10	-	-	-
Fenitrothion	µg/kg	10	NONE	-	< 10	-	-	-
Fenthion	µg/kg	10	NONE	-	< 10	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	< 10	-	-	-
Heptachlor	µg/kg	10	NONE	-	< 10	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	< 10	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	< 10	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	< 10	-	-	-
Isodrin	µg/kg	20	NONE	-	< 20	-	-	-
Malathion	µg/kg	10	NONE	-	< 10	-	-	-
Methacrifos	µg/kg	10	NONE	-	< 10	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546556	1546557	1546558	1546559	1546560
Sample Reference				TP142	TP144	TP145	TP147	TP149
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.40	0.00-0.30	0.00-0.28	0.00-0.32	0.00-0.30
Date Sampled				18/06/2020	18/06/2020	18/06/2020	18/06/2020	22/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'-	µg/kg	20	NONE	-	< 20	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	< 10	-	-	-
Omethoate	µg/kg	20	NONE	-	< 20	-	-	-
Parathion	µg/kg	10	NONE	-	< 10	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	< 10	-	-	-
Pendimethalin	µg/kg	10	NONE	-	< 10	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	< 10	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	< 10	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	< 10	-	-	-
Phorate	µg/kg	10	NONE	-	< 10	-	-	-
Phosalone	µg/kg	10	NONE	-	< 10	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	< 10	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	< 10	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	< 10	-	-	-
Propetamphos	µg/kg	10	NONE	-	< 10	-	-	-
Propyzamide	µg/kg	10	NONE	-	< 10	-	-	-
Tecnazene	µg/kg	10	NONE	-	< 10	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	< 10	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	< 10	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	< 10	-	-	-
Trifluralin	µg/kg	10	NONE	-	< 10	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	< 10	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	< 10	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	< 50	-	-	-
Atrazine	µg/kg	10	NONE	-	< 10	-	-	-
Carbaryl	µg/kg	10	NONE	-	< 10	-	-	-
Carbofuran	µg/kg	10	NONE	-	< 10	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	< 20	-	-	-
Chlortoluron	µg/kg	10	NONE	-	< 10	-	-	-
Cyanazine	µg/kg	10	NONE	-	< 10	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	< 50	-	-	-
Diuron	µg/kg	10	NONE	-	< 10	-	-	-
Fluometuron	µg/kg	10	NONE	-	< 10	-	-	-
Isoproturon	µg/kg	10	NONE	-	< 10	-	-	-
Linuron	µg/kg	20	NONE	-	< 20	-	-	-
Methiocarb	µg/kg	10	NONE	-	< 10	-	-	-
Methomyl	µg/kg	10	NONE	-	< 10	-	-	-
Oxamyl	µg/kg	10	NONE	-	< 10	-	-	-
Prometryn	µg/kg	10	NONE	-	< 10	-	-	-
Propazine	µg/kg	10	NONE	-	< 10	-	-	-
Propoxur	µg/kg	10	NONE	-	< 10	-	-	-
Siduron	µg/kg	10	NONE	-	< 10	-	-	-
Simazine	µg/kg	10	NONE	-	< 10	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	< 10	-	-	-
Terbuthylazine	µg/kg	10	NONE	-	< 10	-	-	-
Terbutryn	µg/kg	10	NONE	-	< 10	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	< 10	-	-	-
Trietazine	µg/kg	10	NONE	-	< 10	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546561				1546562		1546563		1546564		1546565	
Sample Reference	TP150				TP151		TP152		TP155		TP156	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.80-1.00		0.00-0.30		0.00-0.30	
Date Sampled	22/06/2020				22/06/2020		22/06/2020		22/06/2020		22/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	17	12	13	12	16	16	16	16	
Total mass of sample received	kg	0.001	NONE	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.3	7.7	8.2	6.3	6.3
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	25	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.012	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	12.4	-	-	-
Organic Matter	%	0.1	MCERTS	-	11	-	-	-

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	-	0.45	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	0.41	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.26	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	0.26	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.36	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.26	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.36	-	-	-
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	-	2.36	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	14	6.2	5.4	19
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	< 0.2	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	35	26	39	31	35
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	27	39	31	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	33	22	15	54
Lead (aqua regia extractable)	mg/kg	1	MCERTS	75	63	10	15	120
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.6	< 0.3	< 0.3	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	30	23	42	27	33
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	94	150	52	83	90



4041



Environmental Science

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546561	1546562	1546563	1546564	1546565
Sample Reference				TP150	TP151	TP152	TP155	TP156
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.80-1.00	0.00-0.30	0.00-0.30
Date Sampled				22/06/2020	22/06/2020	22/06/2020	22/06/2020	22/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	0.45	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	0.41	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.26	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	0.26	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.36	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.26	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.36	-	-	-
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	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546561				1546562				1546563				1546564				1546565			
Sample Reference	TP150				TP151				TP152				TP155				TP156			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.30				0.80-1.00				0.00-0.30				0.00-0.30			
Date Sampled	22/06/2020				22/06/2020				22/06/2020				22/06/2020				22/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	1546561	1546562	1546563	1546564	1546565
SVOCs TICs Compound Name		N/A	NONE	-	Oxirane, hexadecyl-	-	-	-
SVOC % Match	%	N/A	NONE	-	96	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1546561	1546562	1546563	1546564	1546565
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546561	1546562	1546563	1546564	1546565
Sample Reference				TP150	TP151	TP152	TP155	TP156
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.80-1.00	0.00-0.30	0.00-0.30
Date Sampled				22/06/2020	22/06/2020	22/06/2020	22/06/2020	22/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbuthylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546566				1546567		1546568		1546569		1546570	
Sample Reference	TP157				TP160		TP161		TP163		TP165	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	22/06/2020				22/06/2020		22/06/2020		23/06/2020		23/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	19	11	13	14	16	16	16	16	
Total mass of sample received	kg	0.001	NONE	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.0	6.5	6.8	5.8	7.1
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	35	22	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.018	0.011	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	17.5	11.1	-	-	-
Organic Matter	%	0.1	MCERTS	7.5	4.1	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	7.2	7.4	21	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	1.3	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	29	24	23	33	33
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	25	23	33	34
Copper (aqua regia extractable)	mg/kg	1	MCERTS	39	18	21	54	32
Lead (aqua regia extractable)	mg/kg	1	MCERTS	56	26	37	170	54
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	< 0.3	0.3	0.8	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	26	22	19	29	30
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	58	36	42	85	69



4041



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546566	1546567	1546568	1546569	1546570
Sample Reference				TP157	TP160	TP161	TP163	TP165
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				22/06/2020	22/06/2020	22/06/2020	23/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.75
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.15
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.67
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.57
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.32
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.29
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.31
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.17
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.26
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546566			1546567			1546568			1546569			1546570		
Sample Reference	TP157			TP160			TP161			TP163			TP165		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	22/06/2020			22/06/2020			22/06/2020			23/06/2020			23/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	Oxirane, hexadecyl-	Oxirane, hexadecyl-			Oxirane, hexadecyl-
SVOC % Match	%	N/A	NONE	98	93	-	-	94
SVOCs TICs Compound Name		N/A	NONE	Oxirane, hexadecyl-		-	-	
SVOC % Match	%	N/A	NONE	98		-	-	

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	1546566	1546567	1546568	1546569	1546570
Alachlor	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Aldrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Azinphos-ethyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Azinphos-methyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
BHC-beta	µg/kg	10	NONE	< 10	< 10	-	-	< 10
BHC-delta	µg/kg	10	NONE	< 10	< 10	-	-	< 10
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Bifenthrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Carbophenothion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlordane-cis	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlordane-trans	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlorfenvinphos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlorothalonil	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Chlorpyrifos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Cyfluthrin (Sum)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Cyhalothrin (Lambda)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Cypermethrin (Sum)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
DDD-o,p'	µg/kg	10	NONE	< 10	< 10	-	-	< 10
DDD-p,p'	µg/kg	10	NONE	< 10	< 10	-	-	< 10
DDE-o,p'	µg/kg	10	NONE	< 10	< 10	-	-	< 10
DDE-p,p'	µg/kg	10	NONE	< 10	< 10	-	-	< 10
DDT-o,p'	µg/kg	10	NONE	< 10	< 10	-	-	< 10
DDT-p,p'	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Deltamethrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Demeton-O	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Demeton-S	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Diazinon	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dichlorvos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dieldrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dimethoate	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dimethylvinphos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endosulfan I (alpha isomer)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endosulfan II (beta isomer)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endosulfan sulfate	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endrin	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Endrin aldehyde	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endrin ketone	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Ethion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Etrinfos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Fenitrothion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Fenthion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Fenvalerate (Sum)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Heptachlor	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Heptachlor exo-epoxide	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Hexachlorobenzene	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Hexachlorobutadiene	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Isodrin	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Malathion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Methacrifos	µg/kg	10	NONE	< 10	< 10	-	-	< 10

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546566	1546567	1546568	1546569	1546570
Sample Reference				TP157	TP160	TP161	TP163	TP165
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				22/06/2020	22/06/2020	22/06/2020	23/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'-	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Mevinphos, E+Z	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Omethoate	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Parathion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Parathion-methyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Pendimethalin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Pentachlorobenzene	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Permethrin, Cis-	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Permethrin, Trans-	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Phorate	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Phosalone	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Phosphamidon (Sum)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Pirimiphos-ethyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Pirimiphos-methyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Propetamphos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Propyzamide	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Tecnazene	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Trifluralin	µg/kg	10	NONE	< 10	< 10	-	-	< 10

Herbicides

Aldicarb	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Aldicarb Sulfone	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Aldicarb Sulfoxide	µg/kg	50	NONE	< 50	< 50	-	-	< 50
Atrazine	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Carbaryl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Carbofuran	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Carbofuran, 3-OH	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Chlortoluron	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Cyanazine	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Diflufenzuron	µg/kg	50	NONE	< 50	< 50	-	-	< 50
Diuron	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Fluometuron	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Isoproturon	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Linuron	µg/kg	20	NONE	< 20	< 20	-	-	< 20
Methiocarb	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Methomyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Oxamyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Prometryn	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Propazine	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Propoxur	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Siduron	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Simazine	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Tebuthiuron	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Terbuthylazine	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Terbutryn	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Thiadiazuron	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Trietazine	µg/kg	10	NONE	< 10	< 10	-	-	< 10

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546571				1546572		1546573		1546574		1546575	
Sample Reference	TP166				TP167		TP168		TP169		TP187	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.50				0.00-0.20		0.00-0.30		0.40-1.00		0.00-0.30	
Date Sampled	23/06/2020				23/06/2020		23/06/2020		23/06/2020		22/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	6.4	19	15	13	17	17	17	17	
Total mass of sample received	kg	0.001	NONE	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	-	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.8	7.0	7.4	8.3	7.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	20	-	-	55
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.0098	-	-	0.027
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	9.8	-	-	27.3
Organic Matter	%	0.1	MCERTS	-	6.1	-	-	6.2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	0.22	-	-	0.26
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	0.27	-	-	0.38
Pyrene	mg/kg	0.05	MCERTS	-	0.27	-	-	0.36
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	< 0.80	-	-	1.00
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	1.4	16	13	7.0	9.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	2.4
Chromium (III)	mg/kg	1	NONE	12	40	34	42	26
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	12	41	34	42	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	5.8	44	35	23	22
Lead (aqua regia extractable)	mg/kg	1	MCERTS	4.7	69	57	11	35
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.5	0.5	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.2	33	31	41	23
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	14	110	67	50	50



4041



Environmental Science

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546571	1546572	1546573	1546574	1546575
Sample Reference				TP166	TP167	TP168	TP169	TP187
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.50	0.00-0.20	0.00-0.30	0.40-1.00	0.00-0.30
Date Sampled				23/06/2020	23/06/2020	23/06/2020	23/06/2020	22/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	0.22	-	-	0.26
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	0.27	-	-	0.38
Pyrene	mg/kg	0.05	MCERTS	-	0.27	-	-	0.36
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number	1546571			1546572			1546573			1546574			1546575		
Sample Reference	TP166			TP167			TP168			TP169			TP187		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.50			0.00-0.20			0.00-0.30			0.40-1.00			0.00-0.30		
Date Sampled	23/06/2020			23/06/2020			23/06/2020			23/06/2020			22/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name	Units	Limit of detection	Accreditation Status	-	ND	-	-	Oxirane, hexadecyl-
SVOC % Match	%	N/A	NONE	-	0	-	-	95
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	
SVOC % Match	%	N/A	NONE	-	-	-	-	

Pesticides

Pesticide Name	Units	Limit of detection	Accreditation Status	-	-	-	-	-
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546571	1546572	1546573	1546574	1546575
Sample Reference				TP166	TP167	TP168	TP169	TP187
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.50	0.00-0.20	0.00-0.30	0.40-1.00	0.00-0.30
Date Sampled				23/06/2020	23/06/2020	23/06/2020	23/06/2020	22/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbuthylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546576	1546577			
Sample Reference				SA06	SA08			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.40	0.00-0.50			
Date Sampled				17/06/2020	23/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	10	9.9			
Total mass of sample received	kg	0.001	NONE	0.70	0.70			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.3	7.6			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-			
Organic Matter	%	0.1	MCERTS	-	-			

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	4.4			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	< 0.2			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	37	34			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	37	35			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	14			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	64	14			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	30	29			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	83	39			



4041



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546576	1546577			
Sample Reference				SA06	SA08			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.40	0.00-0.50			
Date Sampled				17/06/2020	23/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-			
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-			
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-			
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-			
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-			
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-			
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-			
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-			
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-			
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-			
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-			
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-			
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-			
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-			
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-			
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-			
Phenanthrene	mg/kg	0.05	MCERTS	0.25	-			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-			
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-			
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-			
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-			
Fluoranthene	mg/kg	0.05	MCERTS	0.47	-			
Pyrene	mg/kg	0.05	MCERTS	0.45	-			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.27	-			
Chrysene	mg/kg	0.05	MCERTS	0.28	-			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.31	-			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.17	-			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.27	-			
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	-			



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546576	1546577			
Sample Reference				SA06	SA08			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.40	0.00-0.50			
Date Sampled				17/06/2020	23/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	Oxirane, heptadecyl-	-			
SVOC % Match	%	N/A	NONE	95	-			
SVOCs TICs Compound Name		N/A	NONE		-			
SVOC % Match	%	N/A	NONE		-			

Pesticides

Alachlor	µg/kg	10	NONE	-	-			
Aldrin	µg/kg	10	NONE	-	-			
Azinphos-ethyl	µg/kg	10	NONE	-	-			
Azinphos-methyl	µg/kg	10	NONE	-	-			
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-			
BHC-beta	µg/kg	10	NONE	-	-			
BHC-delta	µg/kg	10	NONE	-	-			
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-			
Bifenthrin	µg/kg	10	NONE	-	-			
Carbophenothion	µg/kg	10	NONE	-	-			
Chlordane-cis	µg/kg	10	NONE	-	-			
Chlordane-trans	µg/kg	10	NONE	-	-			
Chlorfenvinphos	µg/kg	10	NONE	-	-			
Chlorothalonil	µg/kg	20	NONE	-	-			
Chlorpyrifos	µg/kg	10	NONE	-	-			
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-			
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-			
Cypermethrin (Sum)	µg/kg	10	NONE	-	-			
DDD-o,p'	µg/kg	10	NONE	-	-			
DDD-p,p'	µg/kg	10	NONE	-	-			
DDE-o,p'	µg/kg	10	NONE	-	-			
DDE-p,p'	µg/kg	10	NONE	-	-			
DDT-o,p'	µg/kg	10	NONE	-	-			
DDT-p,p'	µg/kg	10	NONE	-	-			
Deltamethrin	µg/kg	10	NONE	-	-			
Demeton-O	µg/kg	10	NONE	-	-			
Demeton-S	µg/kg	10	NONE	-	-			
Diazinon	µg/kg	10	NONE	-	-			
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-			
Dichlorvos	µg/kg	10	NONE	-	-			
Dieldrin	µg/kg	10	NONE	-	-			
Dimethoate	µg/kg	10	NONE	-	-			
Dimethylvinphos	µg/kg	10	NONE	-	-			
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-			
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-			
Endosulfan sulfate	µg/kg	10	NONE	-	-			
Endrin	µg/kg	20	NONE	-	-			
Endrin aldehyde	µg/kg	10	NONE	-	-			
Endrin ketone	µg/kg	10	NONE	-	-			
Ethion	µg/kg	10	NONE	-	-			
Etrinfos	µg/kg	10	NONE	-	-			
Fenitrothion	µg/kg	10	NONE	-	-			
Fenthion	µg/kg	10	NONE	-	-			
Fenvalerate (Sum)	µg/kg	10	NONE	-	-			
Heptachlor	µg/kg	10	NONE	-	-			
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-			
Hexachlorobenzene	µg/kg	10	NONE	-	-			
Hexachlorobutadiene	µg/kg	10	NONE	-	-			
Isodrin	µg/kg	20	NONE	-	-			
Malathion	µg/kg	10	NONE	-	-			
Methacrifos	µg/kg	10	NONE	-	-			



Analytical Report Number: 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Lab Sample Number				1546576	1546577			
Sample Reference				SA06	SA08			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.40	0.00-0.50			
Date Sampled				17/06/2020	23/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-			
Mevinphos, E+Z	µg/kg	10	NONE	-	-			
Omethoate	µg/kg	20	NONE	-	-			
Parathion	µg/kg	10	NONE	-	-			
Parathion-methyl	µg/kg	10	NONE	-	-			
Pendimethalin	µg/kg	10	NONE	-	-			
Pentachlorobenzene	µg/kg	10	NONE	-	-			
Permethrin, Cis-	µg/kg	10	NONE	-	-			
Permethrin, Trans-	µg/kg	10	NONE	-	-			
Phorate	µg/kg	10	NONE	-	-			
Phosalone	µg/kg	10	NONE	-	-			
Phosphamidon (Sum)	µg/kg	10	NONE	-	-			
Pirimiphos-ethyl	µg/kg	10	NONE	-	-			
Pirimiphos-methyl	µg/kg	10	NONE	-	-			
Propetamphos	µg/kg	10	NONE	-	-			
Propyzamide	µg/kg	10	NONE	-	-			
Tecnazene	µg/kg	10	NONE	-	-			
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-			
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-			
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-			
Trifluralin	µg/kg	10	NONE	-	-			

Herbicides

Aldicarb	µg/kg	10	NONE	-	-			
Aldicarb Sulfone	µg/kg	10	NONE	-	-			
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-			
Atrazine	µg/kg	10	NONE	-	-			
Carbaryl	µg/kg	10	NONE	-	-			
Carbofuran	µg/kg	10	NONE	-	-			
Carbofuran, 3-OH	µg/kg	20	NONE	-	-			
Chlortoluron	µg/kg	10	NONE	-	-			
Cyanazine	µg/kg	10	NONE	-	-			
Diflufenzuron	µg/kg	50	NONE	-	-			
Diuron	µg/kg	10	NONE	-	-			
Fluometuron	µg/kg	10	NONE	-	-			
Isoproturon	µg/kg	10	NONE	-	-			
Linuron	µg/kg	20	NONE	-	-			
Methiocarb	µg/kg	10	NONE	-	-			
Methomyl	µg/kg	10	NONE	-	-			
Oxamyl	µg/kg	10	NONE	-	-			
Prometryn	µg/kg	10	NONE	-	-			
Propazine	µg/kg	10	NONE	-	-			
Propoxur	µg/kg	10	NONE	-	-			
Siduron	µg/kg	10	NONE	-	-			
Simazine	µg/kg	10	NONE	-	-			
Tebuthiuron	µg/kg	10	NONE	-	-			
Terbuthylazine	µg/kg	10	NONE	-	-			
Terbutryn	µg/kg	10	NONE	-	-			
Thiadiazuron	µg/kg	10	NONE	-	-			
Trietazine	µg/kg	10	NONE	-	-			



Analytical Report Number : 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

* 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 *
1546551	TP133	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546552	TP136	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546553	TP137	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546554	TP139	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546555	TP141	None Supplied	0.30-0.45	Brown loam and clay with gravel and vegetation.
1546556	TP142	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1546557	TP144	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546558	TP145	None Supplied	0.00-0.28	Brown loam and clay with gravel and vegetation.
1546559	TP147	None Supplied	0.00-0.32	Brown loam and clay with gravel and vegetation.
1546560	TP149	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546561	TP150	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546562	TP151	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546563	TP152	None Supplied	0.80-1.00	Brown loam and clay with gravel and vegetation.
1546564	TP155	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546565	TP156	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546566	TP157	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546567	TP160	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546568	TP161	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546569	TP163	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546570	TP165	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546571	TP166	None Supplied	0.00-0.50	Brown loam and clay with gravel and vegetation.
1546572	TP167	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1546573	TP168	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546574	TP169	None Supplied	0.40-1.00	Brown loam and clay with gravel.
1546575	TP187	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546576	SA06	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1546577	SA08	None Supplied	0.00-0.50	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-16533

Project / Site name: Area 13, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.



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Analytical Report Number : 20-16489

Replaces Analytical Report Number : 20-16489, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 14, The Lanes, Penwortham	Samples received on:	29/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	29/06/2020
Your order number:		Analysis completed by:	09/07/2020
Report Issue Number:	2	Report issued on:	13/07/2020
Samples Analysed:	7 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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

Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1546404	1546405	1546406	1546407	1546408			
Sample Reference	TP177	TP179	TP180	TP181	TP183			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.40	0.50-0.70	0.00-0.30			
Date Sampled	24/06/2020	24/06/2020	24/06/2020	24/06/2020	23/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	17	19	14	13	6.9
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	-	-
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.3	5.9	6.6	8.1	5.6
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	14	8.9	10	15
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.3	< 0.2	< 0.2	0.4
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	41	34	43	36	42
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41	34	43	36	42
Copper (aqua regia extractable)	mg/kg	1	MCERTS	37	44	31	23	51
Lead (aqua regia extractable)	mg/kg	1	MCERTS	46	83	25	12	79
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	0.5	< 0.3	< 0.3	0.6
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	35	27	39	38	35
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	67	110	50	52	110



Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1546404	1546405	1546406	1546407	1546408			
Sample Reference	TP177	TP179	TP180	TP181	TP183			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.40	0.50-0.70	0.00-0.30			
Date Sampled	24/06/2020	24/06/2020	24/06/2020	24/06/2020	23/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status					
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS					
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-



4041



Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1546404				1546405				1546406				1546407				1546408			
Sample Reference	TP177				TP179				TP180				TP181				TP183			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.30				0.00-0.40				0.50-0.70				0.00-0.30			
Date Sampled	24/06/2020				24/06/2020				24/06/2020				24/06/2020				23/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.69
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.66
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41
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



Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number	1546404	1546405	1546406	1546407	1546408
Sample Reference	TP177	TP179	TP180	TP181	TP183
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.40	0.50-0.70	0.00-0.30
Date Sampled	24/06/2020	24/06/2020	24/06/2020	24/06/2020	23/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Eicosane
SVOC % Match	%	N/A	NONE	-	-	-	-	98
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Heneicosane
SVOC % Match	%	N/A	NONE	-	-	-	-	97
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Oxirane, hexadecyl-
SVOC % Match	%	N/A	NONE	-	-	-	-	95
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	Benz[e]acephenanthrylene
SVOC % Match	%	N/A	NONE	-	-	-	-	95

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	< 10
Aldrin	µg/kg	10	NONE	-	-	-	-	< 10
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	< 10
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	< 10
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	< 10
BHC-beta	µg/kg	10	NONE	-	-	-	-	< 10
BHC-delta	µg/kg	10	NONE	-	-	-	-	< 10
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	< 10
Bifenthrin	µg/kg	10	NONE	-	-	-	-	< 10
Carbophenothion	µg/kg	10	NONE	-	-	-	-	< 10
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	< 10
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	< 10
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	< 10
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	< 20
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	< 10
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	< 10
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	< 10
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	< 10
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	< 10
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	< 10
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	< 10
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	< 10
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	< 10
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	< 10
Deltamethrin	µg/kg	10	NONE	-	-	-	-	< 10
Demeton-O	µg/kg	10	NONE	-	-	-	-	< 10
Demeton-S	µg/kg	10	NONE	-	-	-	-	< 10
Diazinon	µg/kg	10	NONE	-	-	-	-	< 10
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	< 10
Dichlorvos	µg/kg	10	NONE	-	-	-	-	< 10
Dieldrin	µg/kg	10	NONE	-	-	-	-	< 10
Dimethoate	µg/kg	10	NONE	-	-	-	-	< 10
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	< 10
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	< 10
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	< 10
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	< 10
Endrin	µg/kg	20	NONE	-	-	-	-	< 20
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	< 10
Endrin ketone	µg/kg	10	NONE	-	-	-	-	< 10
Ethion	µg/kg	10	NONE	-	-	-	-	< 10
Etrifos	µg/kg	10	NONE	-	-	-	-	< 10
Fenitrothion	µg/kg	10	NONE	-	-	-	-	< 10
Fenthion	µg/kg	10	NONE	-	-	-	-	< 10
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	< 10
Heptachlor	µg/kg	10	NONE	-	-	-	-	< 10

Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1546404	1546405	1546406	1546407	1546408
Sample Reference				TP177	TP179	TP180	TP181	TP183
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.40	0.50-0.70	0.00-0.30
Date Sampled				24/06/2020	24/06/2020	24/06/2020	24/06/2020	23/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	< 10
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	< 10
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	< 10
Isodrin	µg/kg	20	NONE	-	-	-	-	< 20
Malathion	µg/kg	10	NONE	-	-	-	-	< 10
Methacrifos	µg/kg	10	NONE	-	-	-	-	< 10
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	< 20
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	< 10
Ormethoate	µg/kg	20	NONE	-	-	-	-	< 20
Parathion	µg/kg	10	NONE	-	-	-	-	< 10
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	< 10
Pendimethalin	µg/kg	10	NONE	-	-	-	-	< 10
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	< 10
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	< 10
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	< 10
Phorate	µg/kg	10	NONE	-	-	-	-	< 10
Phosalone	µg/kg	10	NONE	-	-	-	-	< 10
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	< 10
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	< 10
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	< 10
Propetamphos	µg/kg	10	NONE	-	-	-	-	< 10
Propyzamide	µg/kg	10	NONE	-	-	-	-	< 10
Tecnazene	µg/kg	10	NONE	-	-	-	-	< 10
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	< 10
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	< 10
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	< 10
Trifluralin	µg/kg	10	NONE	-	-	-	-	< 10

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	< 10
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	< 10
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	< 50
Atrazine	µg/kg	10	NONE	-	-	-	-	< 10
Carbaryl	µg/kg	10	NONE	-	-	-	-	< 10
Carbofuran	µg/kg	10	NONE	-	-	-	-	< 10
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	< 20
Chlortoluron	µg/kg	10	NONE	-	-	-	-	< 10
Cyanazine	µg/kg	10	NONE	-	-	-	-	< 10
Diffubenzuron	µg/kg	50	NONE	-	-	-	-	< 50
Diuron	µg/kg	10	NONE	-	-	-	-	< 10
Fluometuron	µg/kg	10	NONE	-	-	-	-	< 10
Isoproturon	µg/kg	10	NONE	-	-	-	-	< 10
Linuron	µg/kg	20	NONE	-	-	-	-	< 20
Methiocarb	µg/kg	10	NONE	-	-	-	-	< 10
Methomyl	µg/kg	10	NONE	-	-	-	-	< 10
Oxamyl	µg/kg	10	NONE	-	-	-	-	< 10
Prometryn	µg/kg	10	NONE	-	-	-	-	< 10
Propazine	µg/kg	10	NONE	-	-	-	-	< 10
Propoxur	µg/kg	10	NONE	-	-	-	-	< 10
Siduron	µg/kg	10	NONE	-	-	-	-	< 10
Simazine	µg/kg	10	NONE	-	-	-	-	< 10
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	< 10
Terbutylazine	µg/kg	10	NONE	-	-	-	-	< 10
Terbutryn	µg/kg	10	NONE	-	-	-	-	< 10
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	< 10
Trietazine	µg/kg	10	NONE	-	-	-	-	< 10

Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1546409	1546410			
Sample Reference				TP184	TP185			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	16	16			
Total mass of sample received	kg	0.001	NONE	1.2	1.2			

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.9	6.2			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	71			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.035			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	35.4			
Organic Matter	%	0.1	MCERTS	-	8.9			

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	-	0.61			
Anthracene	mg/kg	0.05	MCERTS	-	0.12			
Fluoranthene	mg/kg	0.05	MCERTS	-	1.6			
Pyrene	mg/kg	0.05	MCERTS	-	1.6			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.97			
Chrysene	mg/kg	0.05	MCERTS	-	0.93			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	1.6			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.97			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.2			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.65			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.71			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	11.0			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	13			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.5			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	35	37			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36	37			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	56	43			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	87	70			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	0.6			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	29			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	140			



Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1546409	1546410			
Sample Reference				TP184	TP185			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
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	mg/kg	0.001	MCERTS	-	< 0.001			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10			
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	12			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	63			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	76			

Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1546409	1546410			
Sample Reference				TP184	TP185			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-			
Phenol	mg/kg	0.2	ISO 17025	-	-			
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-			
2-Methylphenol	mg/kg	0.3	MCERTS	-	-			
Hexachloroethane	mg/kg	0.05	MCERTS	-	-			
Nitrobenzene	mg/kg	0.3	MCERTS	-	-			
4-Methylphenol	mg/kg	0.2	NONE	-	-			
Isophorone	mg/kg	0.2	MCERTS	-	-			
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-			
Naphthalene	mg/kg	0.05	MCERTS	-	-			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-			
4-Chloroaniline	mg/kg	0.1	NONE	-	-			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-			
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-			
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-			
Acenaphthylene	mg/kg	0.05	MCERTS	-	-			
Acenaphthene	mg/kg	0.05	MCERTS	-	-			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-			
Dibenzofuran	mg/kg	0.2	MCERTS	-	-			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-			
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-			
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-			
Fluorene	mg/kg	0.05	MCERTS	-	-			
Azobenzene	mg/kg	0.3	MCERTS	-	-			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-			
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-			
Phenanthrene	mg/kg	0.05	MCERTS	-	-			
Anthracene	mg/kg	0.05	MCERTS	-	-			
Carbazole	mg/kg	0.3	MCERTS	-	-			
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-			
Anthraquinone	mg/kg	0.3	MCERTS	-	-			
Fluoranthene	mg/kg	0.05	MCERTS	-	-			
Pyrene	mg/kg	0.05	MCERTS	-	-			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-			
Chrysene	mg/kg	0.05	MCERTS	-	-			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-			



Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1546409	1546410			
Sample Reference				TP184	TP185			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			
SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			

Pesticides

Alachlor	µg/kg	10	NONE	-	-			
Aldrin	µg/kg	10	NONE	-	-			
Azinphos-ethyl	µg/kg	10	NONE	-	-			
Azinphos-methyl	µg/kg	10	NONE	-	-			
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-			
BHC-beta	µg/kg	10	NONE	-	-			
BHC-delta	µg/kg	10	NONE	-	-			
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-			
Bifenthrin	µg/kg	10	NONE	-	-			
Carbophenothion	µg/kg	10	NONE	-	-			
Chlordane-cis	µg/kg	10	NONE	-	-			
Chlordane-trans	µg/kg	10	NONE	-	-			
Chlorfenvinphos	µg/kg	10	NONE	-	-			
Chlorothalonil	µg/kg	20	NONE	-	-			
Chlorpyrifos	µg/kg	10	NONE	-	-			
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-			
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-			
Cypermethrin (Sum)	µg/kg	10	NONE	-	-			
DDD-o,p'	µg/kg	10	NONE	-	-			
DDD-p,p'	µg/kg	10	NONE	-	-			
DDE-o,p'	µg/kg	10	NONE	-	-			
DDE-p,p'	µg/kg	10	NONE	-	-			
DDT-o,p'	µg/kg	10	NONE	-	-			
DDT-p,p'	µg/kg	10	NONE	-	-			
Deltamethrin	µg/kg	10	NONE	-	-			
Demeton-O	µg/kg	10	NONE	-	-			
Demeton-S	µg/kg	10	NONE	-	-			
Diazinon	µg/kg	10	NONE	-	-			
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-			
Dichlorvos	µg/kg	10	NONE	-	-			
Dieldrin	µg/kg	10	NONE	-	-			
Dimethoate	µg/kg	10	NONE	-	-			
Dimethylvinphos	µg/kg	10	NONE	-	-			
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-			
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-			
Endosulfan sulfate	µg/kg	10	NONE	-	-			
Endrin	µg/kg	20	NONE	-	-			
Endrin aldehyde	µg/kg	10	NONE	-	-			
Endrin ketone	µg/kg	10	NONE	-	-			
Ethion	µg/kg	10	NONE	-	-			
Etrimfos	µg/kg	10	NONE	-	-			
Fenitrothion	µg/kg	10	NONE	-	-			
Fenthion	µg/kg	10	NONE	-	-			
Fenvalerate (Sum)	µg/kg	10	NONE	-	-			
Heptachlor	µg/kg	10	NONE	-	-			

Analytical Report Number: 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Lab Sample Number				1546409	1546410			
Sample Reference				TP184	TP185			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.20	0.00-0.30			
Date Sampled				24/06/2020	24/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-			
Hexachlorobenzene	µg/kg	10	NONE	-	-			
Hexachlorobutadiene	µg/kg	10	NONE	-	-			
Isodrin	µg/kg	20	NONE	-	-			
Malathion	µg/kg	10	NONE	-	-			
Methacrifos	µg/kg	10	NONE	-	-			
Methoxychlor, p,p'	µg/kg	20	NONE	-	-			
Mevinphos, E+Z	µg/kg	10	NONE	-	-			
Ormethoate	µg/kg	20	NONE	-	-			
Parathion	µg/kg	10	NONE	-	-			
Parathion-methyl	µg/kg	10	NONE	-	-			
Pendimethalin	µg/kg	10	NONE	-	-			
Pentachlorobenzene	µg/kg	10	NONE	-	-			
Permethrin, Cis-	µg/kg	10	NONE	-	-			
Permethrin, Trans-	µg/kg	10	NONE	-	-			
Phorate	µg/kg	10	NONE	-	-			
Phosalone	µg/kg	10	NONE	-	-			
Phosphamidon (Sum)	µg/kg	10	NONE	-	-			
Pirimiphos-ethyl	µg/kg	10	NONE	-	-			
Pirimiphos-methyl	µg/kg	10	NONE	-	-			
Propetamphos	µg/kg	10	NONE	-	-			
Propyzamide	µg/kg	10	NONE	-	-			
Tecnazene	µg/kg	10	NONE	-	-			
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-			
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-			
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-			
Trifluralin	µg/kg	10	NONE	-	-			

Herbicides

Aldicarb	µg/kg	10	NONE	-	-			
Aldicarb Sulfone	µg/kg	10	NONE	-	-			
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-			
Atrazine	µg/kg	10	NONE	-	-			
Carbaryl	µg/kg	10	NONE	-	-			
Carbofuran	µg/kg	10	NONE	-	-			
Carbofuran, 3-OH	µg/kg	20	NONE	-	-			
Chlortoluron	µg/kg	10	NONE	-	-			
Cyanazine	µg/kg	10	NONE	-	-			
Diffubenzuron	µg/kg	50	NONE	-	-			
Diuron	µg/kg	10	NONE	-	-			
Fluometuron	µg/kg	10	NONE	-	-			
Isoproturon	µg/kg	10	NONE	-	-			
Linuron	µg/kg	20	NONE	-	-			
Methiocarb	µg/kg	10	NONE	-	-			
Methomyl	µg/kg	10	NONE	-	-			
Oxamyl	µg/kg	10	NONE	-	-			
Prometryn	µg/kg	10	NONE	-	-			
Propazine	µg/kg	10	NONE	-	-			
Propoxur	µg/kg	10	NONE	-	-			
Siduron	µg/kg	10	NONE	-	-			
Simazine	µg/kg	10	NONE	-	-			
Tebuthiuron	µg/kg	10	NONE	-	-			
Terbutylazine	µg/kg	10	NONE	-	-			
Terbutryn	µg/kg	10	NONE	-	-			
Thiadiazuron	µg/kg	10	NONE	-	-			
Trietazine	µg/kg	10	NONE	-	-			



Analytical Report Number : 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

* 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 *
1546404	TP177	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546405	TP179	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546406	TP180	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1546407	TP181	None Supplied	0.50-0.70	Brown loam and clay with gravel and vegetation.
1546408	TP183	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1546409	TP184	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1546410	TP185	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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



Analytical Report Number : 20-16489

Project / Site name: Area 14, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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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.



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Analytical Report Number : 20-15149

Project / Site name:	Area17, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1025	Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	3 soil samples		

Signed:

Joanna Wawrzeczko
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.

Iss No 20-15149-1 Area17, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 7



Analytical Report Number: 20-15149

Project / Site name: Area17, The Lanes, Penwortham

Your Order No: 1025

Lab Sample Number	1539360			1539361			1539362		
Sample Reference	BH17			WS142			WS143		
Sample Number	None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.50			0.00-0.30			0.00-0.30		
Date Sampled	11/06/2020			11/06/2020			11/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status						
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	9.5	15	12			
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected		
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7	5.6	7.6		
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	60	-	-		
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.030	-	-		
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	30.0	-	-		
Organic Matter	%	0.1	MCERTS	11	-	7.0		

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-		
Acenaphthylene	mg/kg	0.05	MCERTS	0.42	-	-		
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-		
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-		
Phenanthrene	mg/kg	0.05	MCERTS	2.4	-	-		
Anthracene	mg/kg	0.05	MCERTS	0.53	-	-		
Fluoranthene	mg/kg	0.05	MCERTS	5.8	-	-		
Pyrene	mg/kg	0.05	MCERTS	4.9	-	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.7	-	-		
Chrysene	mg/kg	0.05	MCERTS	2.9	-	-		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	5.3	-	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.4	-	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.1	-	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.1	-	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.68	-	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	3.7	-	-		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	36.8	-	-		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	25	14	14		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	3.8	0.2	0.5		
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2		
Chromium (III)	mg/kg	1	NONE	34	32	26		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	33	26		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	78	30	62		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	180	64	270		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	0.5	0.5		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	47	27	36		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.7	< 1.0	< 1.0		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	240	91	140		



Analytical Report Number: 20-15149

Project / Site name: Area17, The Lanes, Penwortham

Your Order No: 1025

Lab Sample Number				1539360	1539361	1539362		
Sample Reference				BH17	WS142	WS143		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.00-0.50	0.00-0.30	0.00-0.30		
Date Sampled				11/06/2020	11/06/2020	11/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
p & m-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
o-xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0		

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	1.7	-	< 1.0		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	2.4	-	< 2.0		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	< 8.0		
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	61	-	< 8.0		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	68	-	< 10		

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001		
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	3.1		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	4.2	-	6.1		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	15	-	27		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	150	-	110		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	170	-	150		

Analytical Report Number: 20-15149

Project / Site name: Area17, The Lanes, Penwortham

Your Order No: 1025

Lab Sample Number	1539360			1539361	1539362		
Sample Reference	BH17			WS142	WS143		
Sample Number	None Supplied			None Supplied	None Supplied		
Depth (m)	0.00-0.50			0.00-0.30	0.00-0.30		
Date Sampled	11/06/2020			11/06/2020	11/06/2020		
Time Taken	None Supplied			None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				

SVOCs

Aniline	mg/kg	0.1	NONE	-	< 0.1	-	
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	
Phenanthrene	mg/kg	0.05	MCERTS	-	0.92	-	
Anthracene	mg/kg	0.05	MCERTS	-	0.20	-	
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	
Fluoranthene	mg/kg	0.05	MCERTS	-	1.2	-	
Pyrene	mg/kg	0.05	MCERTS	-	1.1	-	
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.69	-	
Chrysene	mg/kg	0.05	MCERTS	-	0.61	-	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.68	-	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.29	-	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.52	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.44	-	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.42	-	



Analytical Report Number: 20-15149

Project / Site name: Area17, The Lanes, Penwortham

Your Order No: 1025

Lab Sample Number				1539360	1539361	1539362		
Sample Reference				BH17	WS142	WS143		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.00-0.50	0.00-0.30	0.00-0.30		
Date Sampled				11/06/2020	11/06/2020	11/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Pesticide Screen

Pesticides		N/A	NONE	-	Asbsent	-		
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Analytical Report Number : 20-15149

Project / Site name: Area17, The Lanes, Penwortham

* 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 *
1539360	BH17	None Supplied	0.00-0.50	Brown loam and sand with gravel and vegetation.
1539361	WS142	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539362	WS143	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-15149

Project / Site name: Area17, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.



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Analytical Report Number : 20-15165

Replaces Analytical Report Number : 20-15165, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 5, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:		Analysis completed by:	02/07/2020
Report Issue Number:	2	Report issued on:	03/07/2020
Samples Analysed:	8 soil samples		

Signed:

Joanna Wawrzeczko
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.

Iss No 20-15165-2 Area 5, The Lanes, Penwortham C4259

This certificate should not be reproduced, except in full, without the express permission of the laboratory.

The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 12

Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number	1539420				1539421		1539422		1539423		1539424	
Sample Reference	TP61				TP63		TP64		TP65		TP67	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.40				0.00-0.45		0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	15/06/2020				15/06/2020		16/06/2020		16/06/2020		16/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	16	4.7	13	11	11	11	11	11	
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	0.20	0.20	0.20	0.20	0.20	

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Detected	-	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	< 0.001	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.5	6.4	6.1	6.9	6.5
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	64	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.032	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	31.9	-	-	-
Organic Matter	%	0.1	MCERTS	-	9.6	-	-	-

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	-	0.21	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	2.0	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	0.41	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	2.5	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	2.2	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	1.3	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	1.3	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	1.3	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.90	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.2	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.79	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	0.23	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.89	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	15.2	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	23	62	21	9.6	16
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.4	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	34	34	30	31	28
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	34	30	31	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	66	140	72	26	54
Lead (aqua regia extractable)	mg/kg	1	MCERTS	91	420	160	46	100
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	< 0.3	1.0	0.5	0.8
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	35	90	29	24	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	83	170	130	71	110

Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number	1539420			1539421		1539422		1539423		1539424	
Sample Reference	TP61			TP63		TP64		TP65		TP67	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.40			0.00-0.45		0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	15/06/2020			15/06/2020		16/06/2020		16/06/2020		16/06/2020	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								

SVOCs											
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	1539420	1539421	1539422	1539423	1539424	1539420	1539421	1539422
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	< 0.1			
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	< 0.2			
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-	< 0.05			
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	< 0.2			
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	< 0.05			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	< 0.1			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	< 0.1			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-	< 0.1			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	< 0.1			
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	< 0.05			
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	< 0.05			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	< 0.3			
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	< 0.05			
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Phenanthrene	mg/kg	0.05	MCERTS	-	-	1.5	-	1.3			
Anthracene	mg/kg	0.05	MCERTS	-	-	0.35	-	0.28			
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	< 0.2			
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-	< 0.3			
Fluoranthene	mg/kg	0.05	MCERTS	-	-	2.4	-	2.1			
Pyrene	mg/kg	0.05	MCERTS	-	-	2.3	-	1.9			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	< 0.3			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	1.3	-	1.2			
Chrysene	mg/kg	0.05	MCERTS	-	-	1.2	-	1.1			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	1.4	-	1.4			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.74	-	0.48			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	1.2	-	0.98			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.73	-	0.75			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.94	-	0.75			



Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number	1539420		1539421		1539422		1539423		1539424	
Sample Reference	TP61		TP63		TP64		TP65		TP67	
Sample Number	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.40		0.00-0.45		0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	15/06/2020		15/06/2020		16/06/2020		16/06/2020		16/06/2020	
Time Taken	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status							

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	16-Heptadecenal	-	Benzo[e]pyrene
SVOC % Match	%	N/A	NONE	-	-	95	-	95
SVOCs TICs Compound Name		N/A	NONE	-	-	Oxirane, hexadecyl-	-	Pyrene, 1-methyl-
SVOC % Match	%	N/A	NONE	-	-	92	-	93

Pesticides

Alachlor	µg/kg	10	NONE	-	-	< 10	-	< 10
Aldrin	µg/kg	10	NONE	-	-	< 10	-	< 10
Azinphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	< 10
Azinphos-methyl	µg/kg	10	NONE	-	-	< 10	-	< 10
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	< 10	-	< 10
BHC-beta	µg/kg	10	NONE	-	-	< 10	-	< 10
BHC-delta	µg/kg	10	NONE	-	-	< 10	-	< 10
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	< 10	-	< 10
Bifenthrin	µg/kg	10	NONE	-	-	< 10	-	< 10
Carbophenothion	µg/kg	10	NONE	-	-	< 10	-	< 10
Chlordane-cis	µg/kg	10	NONE	-	-	< 10	-	< 10
Chlordane-trans	µg/kg	10	NONE	-	-	< 10	-	< 10
Chlorfenvinphos	µg/kg	10	NONE	-	-	< 10	-	< 10
Chlorothalonil	µg/kg	20	NONE	-	-	< 20	-	< 20
Chlorpyrifos	µg/kg	10	NONE	-	-	< 10	-	< 10
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	< 10	-	< 10
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	< 10	-	< 10
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	< 10	-	< 10
DDD-o,p'	µg/kg	10	NONE	-	-	< 10	-	< 10
DDD-p,p'	µg/kg	10	NONE	-	-	< 10	-	< 10
DDE-o,p'	µg/kg	10	NONE	-	-	< 10	-	< 10
DDE-p,p'	µg/kg	10	NONE	-	-	< 10	-	< 10
DDT-o,p'	µg/kg	10	NONE	-	-	< 10	-	< 10
DDT-p,p'	µg/kg	10	NONE	-	-	< 10	-	< 10
Deltamethrin	µg/kg	10	NONE	-	-	< 10	-	< 10
Demeton-O	µg/kg	10	NONE	-	-	< 10	-	< 10
Demeton-S	µg/kg	10	NONE	-	-	< 10	-	< 10
Diazinon	µg/kg	10	NONE	-	-	< 10	-	< 10
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	< 10	-	< 10
Dichlorvos	µg/kg	10	NONE	-	-	< 10	-	< 10
Dieldrin	µg/kg	10	NONE	-	-	< 10	-	< 10
Dimethoate	µg/kg	10	NONE	-	-	< 10	-	< 10
Dimethylvinphos	µg/kg	10	NONE	-	-	< 10	-	< 10
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	< 10	-	< 10
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	< 10	-	< 10
Endosulfan sulfate	µg/kg	10	NONE	-	-	< 10	-	< 10
Endrin	µg/kg	20	NONE	-	-	< 20	-	< 20
Endrin aldehyde	µg/kg	10	NONE	-	-	< 10	-	< 10
Endrin ketone	µg/kg	10	NONE	-	-	< 10	-	< 10
Ethion	µg/kg	10	NONE	-	-	< 10	-	< 10
Etrinfos	µg/kg	10	NONE	-	-	< 10	-	< 10
Fenitrothion	µg/kg	10	NONE	-	-	< 10	-	< 10
Fenthion	µg/kg	10	NONE	-	-	< 10	-	< 10
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	< 10	-	< 10
Heptachlor	µg/kg	10	NONE	-	-	< 10	-	< 10
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	< 10	-	< 10
Hexachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	< 10
Hexachlorobutadiene	µg/kg	10	NONE	-	-	< 10	-	< 10
Isodrin	µg/kg	20	NONE	-	-	< 20	-	< 20
Malathion	µg/kg	10	NONE	-	-	< 10	-	< 10



4041



Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number				1539420	1539421	1539422	1539423	1539424
Sample Reference				TP61	TP63	TP64	TP65	TP67
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.40	0.00-0.45	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				15/06/2020	15/06/2020	16/06/2020	16/06/2020	16/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methacrifos	µg/kg	10	NONE	-	-	< 10	-	< 10
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	< 20	-	< 20
Mevinphos, E+Z	µg/kg	10	NONE	-	-	< 10	-	< 10
Omethoate	µg/kg	20	NONE	-	-	< 20	-	< 20
Parathion	µg/kg	10	NONE	-	-	< 10	-	< 10
Parathion-methyl	µg/kg	10	NONE	-	-	< 10	-	< 10
Pendimethalin	µg/kg	10	NONE	-	-	< 10	-	< 10
Pentachlorobenzene	µg/kg	10	NONE	-	-	< 10	-	< 10
Permethrin, Cis-	µg/kg	10	NONE	-	-	< 10	-	< 10
Permethrin, Trans-	µg/kg	10	NONE	-	-	< 10	-	< 10
Phorate	µg/kg	10	NONE	-	-	< 10	-	< 10
Phosalone	µg/kg	10	NONE	-	-	< 10	-	< 10
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	< 10	-	< 10
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	< 10	-	< 10
Pirimiphos-methyl	µg/kg	10	NONE	-	-	< 10	-	< 10
Propetamphos	µg/kg	10	NONE	-	-	< 10	-	< 10
Propyzamide	µg/kg	10	NONE	-	-	< 10	-	< 10
Tecnazene	µg/kg	10	NONE	-	-	< 10	-	< 10
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	< 10	-	< 10
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	< 10	-	< 10
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	< 10	-	< 10
Trifluralin	µg/kg	10	NONE	-	-	< 10	-	< 10

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	< 10	-	< 10
Aldicarb Sulfone	µg/kg	10	NONE	-	-	< 10	-	< 10
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	< 50	-	< 50
Atrazine	µg/kg	10	NONE	-	-	< 10	-	< 10
Carbaryl	µg/kg	10	NONE	-	-	< 10	-	< 10
Carbofuran	µg/kg	10	NONE	-	-	< 10	-	< 10
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	< 20	-	< 20
Chlortoluron	µg/kg	10	NONE	-	-	< 10	-	< 10
Cyanazine	µg/kg	10	NONE	-	-	< 10	-	< 10
Diflufenzuron	µg/kg	50	NONE	-	-	< 50	-	< 50
Diuron	µg/kg	10	NONE	-	-	< 10	-	< 10
Fluometuron	µg/kg	10	NONE	-	-	< 10	-	< 10
Isoproturon	µg/kg	10	NONE	-	-	< 10	-	< 10
Linuron	µg/kg	20	NONE	-	-	< 20	-	< 20
Methiocarb	µg/kg	10	NONE	-	-	< 10	-	< 10
Methomyl	µg/kg	10	NONE	-	-	< 10	-	< 10
Oxamyl	µg/kg	10	NONE	-	-	< 10	-	< 10
Prometryn	µg/kg	10	NONE	-	-	< 10	-	< 10
Propazine	µg/kg	10	NONE	-	-	< 10	-	< 10
Propoxur	µg/kg	10	NONE	-	-	< 10	-	< 10
Siduron	µg/kg	10	NONE	-	-	< 10	-	< 10
Simazine	µg/kg	10	NONE	-	-	< 10	-	< 10
Tebuthiuron	µg/kg	10	NONE	-	-	< 10	-	< 10
Terbutylazine	µg/kg	10	NONE	-	-	< 10	-	< 10
Terbutryn	µg/kg	10	NONE	-	-	< 10	-	< 10
Thiadiazuron	µg/kg	10	NONE	-	-	< 10	-	< 10
Trietazine	µg/kg	10	NONE	-	-	< 10	-	< 10

Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number	1539425			1539426			1539427		
Sample Reference	TP68			WS48			WS52		
Sample Number	None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	16/06/2020			17/06/2020			17/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status						
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	11	12	9.2			
Total mass of sample received	kg	0.001	NONE	0.20	0.20	1.2			

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025					
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	-	
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	5.7	6.2		
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-		
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-		
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-		
Organic Matter	%	0.1	MCERTS	-	-	-		

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	20	31		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.4	0.6		
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	1.5		
Chromium (III)	mg/kg	1	NONE	32	39	30		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	39	32		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	73	67	81		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	170	130	140		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	1.0	0.8		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	29	33		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	170	120	160		

Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number				1539425	1539426	1539427		
Sample Reference				TP68	WS48	WS52		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30		
Date Sampled				16/06/2020	17/06/2020	17/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-		
Phenol	mg/kg	0.2	ISO 17025	-	-	-		
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-		
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-		
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-		
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-		
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-		
4-Methylphenol	mg/kg	0.2	NONE	-	-	-		
Isophorone	mg/kg	0.2	MCERTS	-	-	-		
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-		
Naphthalene	mg/kg	0.05	MCERTS	-	-	-		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-		
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-		
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-		
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-		
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-		
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-		
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-		
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-		
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-		
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-		
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-		
Fluorene	mg/kg	0.05	MCERTS	-	-	-		
Azobenzene	mg/kg	0.3	MCERTS	-	-	-		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-		
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-		
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-		
Anthracene	mg/kg	0.05	MCERTS	-	-	-		
Carbazole	mg/kg	0.3	MCERTS	-	-	-		
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-		
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-		
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-		
Pyrene	mg/kg	0.05	MCERTS	-	-	-		
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-		
Chrysene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-		



Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number				1539425	1539426	1539427		
Sample Reference				TP68	WS48	WS52		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30		
Date Sampled				16/06/2020	17/06/2020	17/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-		
Aldrin	µg/kg	10	NONE	-	-	-		
Azinphos-ethyl	µg/kg	10	NONE	-	-	-		
Azinphos-methyl	µg/kg	10	NONE	-	-	-		
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-		
BHC-beta	µg/kg	10	NONE	-	-	-		
BHC-delta	µg/kg	10	NONE	-	-	-		
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-		
Bifenthrin	µg/kg	10	NONE	-	-	-		
Carbophenothion	µg/kg	10	NONE	-	-	-		
Chlordane-cis	µg/kg	10	NONE	-	-	-		
Chlordane-trans	µg/kg	10	NONE	-	-	-		
Chlorfenvinphos	µg/kg	10	NONE	-	-	-		
Chlorothalonil	µg/kg	20	NONE	-	-	-		
Chlorpyrifos	µg/kg	10	NONE	-	-	-		
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-		
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-		
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-		
DDD-o,p'	µg/kg	10	NONE	-	-	-		
DDD-p,p'	µg/kg	10	NONE	-	-	-		
DDE-o,p'	µg/kg	10	NONE	-	-	-		
DDE-p,p'	µg/kg	10	NONE	-	-	-		
DDT-o,p'	µg/kg	10	NONE	-	-	-		
DDT-p,p'	µg/kg	10	NONE	-	-	-		
Deltamethrin	µg/kg	10	NONE	-	-	-		
Demeton-O	µg/kg	10	NONE	-	-	-		
Demeton-S	µg/kg	10	NONE	-	-	-		
Diazinon	µg/kg	10	NONE	-	-	-		
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-		
Dichlorvos	µg/kg	10	NONE	-	-	-		
Dieldrin	µg/kg	10	NONE	-	-	-		
Dimethoate	µg/kg	10	NONE	-	-	-		
Dimethylvinphos	µg/kg	10	NONE	-	-	-		
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-		
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-		
Endosulfan sulfate	µg/kg	10	NONE	-	-	-		
Endrin	µg/kg	20	NONE	-	-	-		
Endrin aldehyde	µg/kg	10	NONE	-	-	-		
Endrin ketone	µg/kg	10	NONE	-	-	-		
Ethion	µg/kg	10	NONE	-	-	-		
Etrifos	µg/kg	10	NONE	-	-	-		
Fenitrothion	µg/kg	10	NONE	-	-	-		
Fenthion	µg/kg	10	NONE	-	-	-		
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-		
Heptachlor	µg/kg	10	NONE	-	-	-		
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-		
Hexachlorobenzene	µg/kg	10	NONE	-	-	-		
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-		
Isodrin	µg/kg	20	NONE	-	-	-		
Malathion	µg/kg	10	NONE	-	-	-		

Analytical Report Number: 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Lab Sample Number				1539425	1539426	1539427		
Sample Reference				TP68	WS48	WS52		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30		
Date Sampled				16/06/2020	17/06/2020	17/06/2020		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Methacrifos	µg/kg	10	NONE	-	-	-		
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-		
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-		
Omethoate	µg/kg	20	NONE	-	-	-		
Parathion	µg/kg	10	NONE	-	-	-		
Parathion-methyl	µg/kg	10	NONE	-	-	-		
Pendimethalin	µg/kg	10	NONE	-	-	-		
Pentachlorobenzene	µg/kg	10	NONE	-	-	-		
Permethrin, Cis-	µg/kg	10	NONE	-	-	-		
Permethrin, Trans-	µg/kg	10	NONE	-	-	-		
Phorate	µg/kg	10	NONE	-	-	-		
Phosalone	µg/kg	10	NONE	-	-	-		
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-		
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-		
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-		
Propetamphos	µg/kg	10	NONE	-	-	-		
Propyzamide	µg/kg	10	NONE	-	-	-		
Tecnazene	µg/kg	10	NONE	-	-	-		
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-		
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-		
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-		
Trifluralin	µg/kg	10	NONE	-	-	-		

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-		
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-		
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-		
Atrazine	µg/kg	10	NONE	-	-	-		
Carbaryl	µg/kg	10	NONE	-	-	-		
Carbofuran	µg/kg	10	NONE	-	-	-		
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-		
Chlortoluron	µg/kg	10	NONE	-	-	-		
Cyanazine	µg/kg	10	NONE	-	-	-		
Diflufenbuzuron	µg/kg	50	NONE	-	-	-		
Diuron	µg/kg	10	NONE	-	-	-		
Fluometuron	µg/kg	10	NONE	-	-	-		
Isoproturon	µg/kg	10	NONE	-	-	-		
Linuron	µg/kg	20	NONE	-	-	-		
Methiocarb	µg/kg	10	NONE	-	-	-		
Methomyl	µg/kg	10	NONE	-	-	-		
Oxamyl	µg/kg	10	NONE	-	-	-		
Prometryn	µg/kg	10	NONE	-	-	-		
Propazine	µg/kg	10	NONE	-	-	-		
Propoxur	µg/kg	10	NONE	-	-	-		
Siduron	µg/kg	10	NONE	-	-	-		
Simazine	µg/kg	10	NONE	-	-	-		
Tebuthiuron	µg/kg	10	NONE	-	-	-		
Terbuthylazine	µg/kg	10	NONE	-	-	-		
Terbutryn	µg/kg	10	NONE	-	-	-		
Thiadiazuron	µg/kg	10	NONE	-	-	-		
Trietazine	µg/kg	10	NONE	-	-	-		



Analytical Report Number: 20-15165
Project / Site name: Area 5, The Lanes, Penwortham
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1539421	TP63	0.00-0.45	141	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Analytical Report Number : 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

* 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 *
1539420	TP61	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1539421	TP63	None Supplied	0.00-0.45	Brown loam and clay with gravel and vegetation.
1539422	TP64	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539423	TP65	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539424	TP67	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539425	TP68	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539426	WS48	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539427	WS52	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-15165

Project / Site name: Area 5, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.

Iss No 20-15165-2 Area 5, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.



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Analytical Report Number : 20-15144

Replaces Analytical Report Number : 20-15144, issue no. 1

Additional analysis undertaken.

Project / Site name:	Area 8, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1018	Analysis completed by:	02/07/2020
Report Issue Number:	2	Report issued on:	02/07/2020
Samples Analysed:	19 soil samples		

Signed:

Will Fardon

Technical Reviewer (CS 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.

Iss No 20-15144-2 Area 8, The Lanes, Penwortham C4259

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Page 1 of 28



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539332			1539333			1539334			1539335			1539336		
Sample Reference	WS58			WS62			WS63			WS64			WS65		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.25			0.00-0.30			0.00-0.50			0.00-0.20			0.00-0.20		
Date Sampled	08/06/2020			10/06/2020			10/06/2020			10/06/2020			10/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	7.6	8.4	13	11	12							
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.3	1.3	1.3							

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.7	6.6	6.6	6.8	7.4
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	15	24	-	27	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0076	0.012	-	0.013	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	7.6	12.1	-	13.3	-
Organic Matter	%	0.1	MCERTS	8.6	10	-	6.0	7.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.44	-	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.7	-	1.1	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.50	-	0.21	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.1	-	1.7	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	1.6	-	1.4	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.3	-	0.92	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.86	-	0.70	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.0	-	0.79	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.40	-	0.34	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.71	-	0.61	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.37	-	0.35	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.43	-	0.40	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	11.4	-	8.48	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	12	13	10	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	0.3	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	28	34	39	31	36
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	28	35	39	31	36
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29	37	49	29	43
Lead (aqua regia extractable)	mg/kg	1	MCERTS	40	48	40	41	59
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.6	0.6	0.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	25	29	30	24	25
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	76	92	73	75	89



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539332			1539333			1539334			1539335			1539336		
Sample Reference	WS58			WS62			WS63			WS64			WS65		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.25			0.00-0.30			0.00-0.50			0.00-0.20			0.00-0.20		
Date Sampled	08/06/2020			10/06/2020			10/06/2020			10/06/2020			10/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1539332	1539333	1539334	1539335	1539336
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

Parameter	Units	Limit of detection	Accreditation Status	1539332	1539333	1539334	1539335	1539336
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	4.7
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	5.9
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	15
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	49
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	75
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	4.1
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	6.9
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	12
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	27
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	49



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539332				1539333				1539334				1539335				1539336			
Sample Reference	WS58				WS62				WS63				WS64				WS65			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.25				0.00-0.30				0.00-0.50				0.00-0.20				0.00-0.20			
Date Sampled	08/06/2020				10/06/2020				10/06/2020				10/06/2020				10/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs

Aniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539332			1539333			1539334			1539335			1539336		
Sample Reference	WS58			WS62			WS63			WS64			WS65		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.25			0.00-0.30			0.00-0.50			0.00-0.20			0.00-0.20		
Date Sampled	08/06/2020			10/06/2020			10/06/2020			10/06/2020			10/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-
SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539332				1539333				1539334				1539335				1539336			
Sample Reference	WS58				WS62				WS63				WS64				WS65			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.25				0.00-0.30				0.00-0.50				0.00-0.20				0.00-0.20			
Date Sampled	08/06/2020				10/06/2020				10/06/2020				10/06/2020				10/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Etrimfos	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539332	1539333	1539334	1539335	1539336
Sample Reference				WS58	WS62	WS63	WS64	WS65
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.25	0.00-0.30	0.00-0.50	0.00-0.20	0.00-0.20
Date Sampled				08/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbutylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539337			1539338			1539339			1539340			1539341		
Sample Reference	WS66			WS67			WS69			SA05			TP79		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.30-0.80			0.00-0.30			0.30-0.90		
Date Sampled	10/06/2020			10/06/2020			10/06/2020			12/06/2020			05/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	9.4	7.5	14	17	14	17	14	17	14	17	14	
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	-
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.3	7.0	7.9	7.6	7.5
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	17	5.5	19	11
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	< 0.2	0.6	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	36	32	22	32	47
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36	33	22	33	47
Copper (aqua regia extractable)	mg/kg	1	MCERTS	32	40	12	36	27
Lead (aqua regia extractable)	mg/kg	1	MCERTS	41	55	7.1	28	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.5	< 0.3	0.5	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	31	20	39	46
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.5	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	82	92	30	85	72



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539337			1539338			1539339			1539340			1539341		
Sample Reference	WS66			WS67			WS69			SA05			TP79		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.30-0.80			0.00-0.30			0.30-0.90		
Date Sampled	10/06/2020			10/06/2020			10/06/2020			12/06/2020			05/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status												
Benzene	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
Toluene	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS												
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-	-	-	-	

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS												
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-	-	-	-	
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-	-	-	-	



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539337			1539338	1539339	1539340	1539341
Sample Reference	WS66			WS67	WS69	SA05	TP79
Sample Number	None Supplied			None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30			0.00-0.30	0.30-0.80	0.00-0.30	0.30-0.90
Date Sampled	10/06/2020			10/06/2020	10/06/2020	12/06/2020	05/06/2020
Time Taken	None Supplied			None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
SVOCs							
Aniline	mg/kg	0.1	NONE	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	0.49
Anthracene	mg/kg	0.05	MCERTS	-	-	-	0.20
Carbazole	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	1.3
Pyrene	mg/kg	0.05	MCERTS	-	-	-	1.2
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.71
Chrysene	mg/kg	0.05	MCERTS	-	-	-	0.62
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.68
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.32
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	0.53
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	0.35
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	0.34



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539337			1539338			1539339			1539340			1539341		
Sample Reference	WS66			WS67			WS69			SA05			TP79		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.30-0.80			0.00-0.30			0.30-0.90		
Date Sampled	10/06/2020			10/06/2020			10/06/2020			12/06/2020			05/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name	SVOC % Match	Units	Limit of detection	Accreditation Status	1539337	1539338	1539339	1539340	1539341
SVOCs TICs Compound Name			N/A	NONE	-	-	-	Heptadecane	-
SVOC % Match	%		N/A	NONE	-	-	-	93	-
SVOCs TICs Compound Name			N/A	NONE	-	-	-	Benzof[e]pyrene	-
SVOC % Match	%		N/A	NONE	-	-	-	92	-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-
SVOCs TICs Compound Name			N/A	NONE	-	-	-		-
SVOC % Match	%		N/A	NONE	-	-	-		-

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539337	1539338	1539339	1539340	1539341
Sample Reference				WS66	WS67	WS69	SA05	TP79
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.30-0.80	0.00-0.30	0.30-0.90
Date Sampled				10/06/2020	10/06/2020	10/06/2020	12/06/2020	05/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Pesticides								
Alachlor	µg/kg	10	NONE	-	-	-	< 10	-
Aldrin	µg/kg	10	NONE	-	-	-	< 10	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	< 10	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	< 10	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	< 10	-
BHC-beta	µg/kg	10	NONE	-	-	-	< 10	-
BHC-delta	µg/kg	10	NONE	-	-	-	< 10	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	< 10	-
Bifenthrin	µg/kg	10	NONE	-	-	-	< 10	-
Carbophenothion	µg/kg	10	NONE	-	-	-	< 10	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	< 10	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	< 10	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	< 10	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	< 20	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	< 10	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	< 10	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	< 10	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	< 10	-
Deltamethrin	µg/kg	10	NONE	-	-	-	< 10	-
Demeton-O	µg/kg	10	NONE	-	-	-	< 10	-
Demeton-S	µg/kg	10	NONE	-	-	-	< 10	-
Diazinon	µg/kg	10	NONE	-	-	-	< 10	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	< 10	-
Dichlorvos	µg/kg	10	NONE	-	-	-	< 10	-
Dieldrin	µg/kg	10	NONE	-	-	-	< 10	-
Dimethoate	µg/kg	10	NONE	-	-	-	< 10	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	< 10	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	< 10	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	< 10	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	< 10	-
Endrin	µg/kg	20	NONE	-	-	-	< 20	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	< 10	-
Endrin ketone	µg/kg	10	NONE	-	-	-	< 10	-
Ethion	µg/kg	10	NONE	-	-	-	< 10	-
Etrimfos	µg/kg	10	NONE	-	-	-	< 10	-
Fenitrothion	µg/kg	10	NONE	-	-	-	< 10	-
Fenthion	µg/kg	10	NONE	-	-	-	< 10	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
Heptachlor	µg/kg	10	NONE	-	-	-	< 10	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	< 10	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	< 10	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	< 10	-
Isodrin	µg/kg	20	NONE	-	-	-	< 20	-
Malathion	µg/kg	10	NONE	-	-	-	< 10	-
Methacrifos	µg/kg	10	NONE	-	-	-	< 10	-
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	< 20	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	< 10	-
Omethoate	µg/kg	20	NONE	-	-	-	< 20	-
Parathion	µg/kg	10	NONE	-	-	-	< 10	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	< 10	-
Pendimethalin	µg/kg	10	NONE	-	-	-	< 10	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	< 10	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	< 10	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539337	1539338	1539339	1539340	1539341
Sample Reference				WS66	WS67	WS69	SA05	TP79
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.30-0.80	0.00-0.30	0.30-0.90
Date Sampled				10/06/2020	10/06/2020	10/06/2020	12/06/2020	05/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	< 10	-
Phorate	µg/kg	10	NONE	-	-	-	< 10	-
Phosalone	µg/kg	10	NONE	-	-	-	< 10	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	< 10	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	< 10	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	< 10	-
Propetamphos	µg/kg	10	NONE	-	-	-	< 10	-
Propyzamide	µg/kg	10	NONE	-	-	-	< 10	-
Tecnazene	µg/kg	10	NONE	-	-	-	< 10	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	< 10	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	< 10	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	< 10	-
Trifluralin	µg/kg	10	NONE	-	-	-	< 10	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	< 10	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	< 10	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	< 50	-
Atrazine	µg/kg	10	NONE	-	-	-	< 10	-
Carbaryl	µg/kg	10	NONE	-	-	-	< 10	-
Carbofuran	µg/kg	10	NONE	-	-	-	< 10	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	< 20	-
Chlortoluron	µg/kg	10	NONE	-	-	-	< 10	-
Cyanazine	µg/kg	10	NONE	-	-	-	< 10	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	< 50	-
Diuron	µg/kg	10	NONE	-	-	-	< 10	-
Fluometuron	µg/kg	10	NONE	-	-	-	< 10	-
Isoproturon	µg/kg	10	NONE	-	-	-	< 10	-
Linuron	µg/kg	20	NONE	-	-	-	< 20	-
Methiocarb	µg/kg	10	NONE	-	-	-	< 10	-
Methomyl	µg/kg	10	NONE	-	-	-	< 10	-
Oxamyl	µg/kg	10	NONE	-	-	-	< 10	-
Prometryn	µg/kg	10	NONE	-	-	-	< 10	-
Propazine	µg/kg	10	NONE	-	-	-	< 10	-
Propoxur	µg/kg	10	NONE	-	-	-	< 10	-
Siduron	µg/kg	10	NONE	-	-	-	< 10	-
Simazine	µg/kg	10	NONE	-	-	-	< 10	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	< 10	-
Terbuthylazine	µg/kg	10	NONE	-	-	-	< 10	-
Terbutryn	µg/kg	10	NONE	-	-	-	< 10	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	< 10	-
Trietazine	µg/kg	10	NONE	-	-	-	< 10	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539342			1539343			1539344			1539345			1539346		
Sample Reference	TP80			TP82			TP84			TP86			TP88		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	10/06/2020			12/06/2020			12/06/2020			12/06/2020			12/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	14	13	12	8.8	11							
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	-	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	7.8	7.1	7.5	7.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	8.8	-	8.9

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	20	12	7.5	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	0.5	0.3	< 0.2	0.5
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	2.4	< 1.2
Chromium (III)	mg/kg	1	NONE	42	38	37	26	40
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	42	38	37	28	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	49	52	39	19	51
Lead (aqua regia extractable)	mg/kg	1	MCERTS	51	69	49	29	63
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.6	0.5	< 0.3	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	40	37	30	18	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	3.1	< 1.0	< 1.0	< 1.0	2.9
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	130	85	57	120

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539342			1539343			1539344			1539345			1539346		
Sample Reference	TP80			TP82			TP84			TP86			TP88		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	10/06/2020			12/06/2020			12/06/2020			12/06/2020			12/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1539342	1539343	1539344	1539345	1539346
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
p & m-xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
o-xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	1539342	1539343	1539344	1539345	1539346
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	5.8
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	8.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	-	-	< 8.0	-	15
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	-	-	< 8.0	-	30
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	58

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	1539342	1539343	1539344	1539345	1539346
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	3.8
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	4.7
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	-	-	< 10	-	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	-	-	< 10	-	24
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	36



4041



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539342	1539343	1539344	1539345	1539346
Sample Reference				TP80	TP82	TP84	TP86	TP88
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				10/06/2020	12/06/2020	12/06/2020	12/06/2020	12/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	0.92	0.21
Anthracene	mg/kg	0.05	MCERTS	-	-	-	0.25	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	1.6	0.44
Pyrene	mg/kg	0.05	MCERTS	-	-	-	1.5	0.47
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.79	0.30
Chrysene	mg/kg	0.05	MCERTS	-	-	-	0.75	0.33
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.90	0.41
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.28	0.24
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	0.60	0.31
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	0.42	0.34
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	0.49	0.36



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539342			1539343			1539344			1539345			1539346		
Sample Reference	TP80			TP82			TP84			TP86			TP88		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	10/06/2020			12/06/2020			12/06/2020			12/06/2020			12/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	Perylene	Heptadecane
SVOC % Match	%	N/A	NONE	-	-	-	92	95
SVOCs TICs Compound Name		N/A	NONE	-	-	-		Eicosane
SVOC % Match	%	N/A	NONE	-	-	-		92
SVOCs TICs Compound Name		N/A	NONE	-	-	-		Octadecanal
SVOC % Match	%	N/A	NONE	-	-	-		91
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		
SVOCs TICs Compound Name		N/A	NONE	-	-	-		
SVOC % Match	%	N/A	NONE	-	-	-		



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539342	1539343	1539344	1539345	1539346
Sample Reference				TP80	TP82	TP84	TP86	TP88
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				10/06/2020	12/06/2020	12/06/2020	12/06/2020	12/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Pesticides								
Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrimfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539342	1539343	1539344	1539345	1539346
Sample Reference				TP80	TP82	TP84	TP86	TP88
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				10/06/2020	12/06/2020	12/06/2020	12/06/2020	12/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-	-
Terbutylazine	µg/kg	10	NONE	-	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539347				1539348		1539349		1539350	
Sample Reference	TP89				TP90		TP91		TP92	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	12/06/2020				11/06/2020		11/06/2020		11/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status							
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	9.4	13	11	8.1	8.1	8.1	
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.3	1.3	1.6	1.6	

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7	6.9	7.3	7.4	
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	
Organic Matter	%	0.1	MCERTS	-	9.6	-	-	

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	20	18	14	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	0.4	0.3	
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	
Chromium (III)	mg/kg	1	NONE	33	38	37	28	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	38	37	28	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	36	45	42	40	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	41	68	55	52	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	0.6	0.5	0.5	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	34	36	27	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.4	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	110	100	86	

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539347			1539348	1539349	1539350
Sample Reference	TP89			TP90	TP91	TP92
Sample Number	None Supplied			None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30			0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled	12/06/2020			11/06/2020	11/06/2020	11/06/2020
Time Taken	None Supplied			None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1539347	1539348	1539349	1539350
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	mg/kg	0.001	MCERTS	1539347	1539348	1539349	1539350
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	1539347	1539348	1539349	1539350
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	-	6.3	-	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	-	9.0	-	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	-	12	-	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	-	31	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	59	-	-

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539347	1539348	1539349	1539350
Sample Reference				TP89	TP90	TP91	TP92
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				12/06/2020	11/06/2020	11/06/2020	11/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
SVOCs							
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	0.31	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.71	-
Pyrene	mg/kg	0.05	MCERTS	-	-	0.66	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.44	-
Chrysene	mg/kg	0.05	MCERTS	-	-	0.39	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.54	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.29	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.38	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.28	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.40	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number	1539347			1539348			1539349			1539350		
Sample Reference	TP89			TP90			TP91			TP92		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	12/06/2020			11/06/2020			11/06/2020			11/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	Oxirane, hexadecyl-	-	
SVOC % Match	%	N/A	NONE	-	-	99	-	
SVOCs TICs Compound Name		N/A	NONE	-	-	Eicosane	-	
SVOC % Match	%	N/A	NONE	-	-	95	-	
SVOCs TICs Compound Name		N/A	NONE	-	-		-	
SVOC % Match	%	N/A	NONE	-	-		-	
SVOCs TICs Compound Name		N/A	NONE	-	-		-	
SVOC % Match	%	N/A	NONE	-	-		-	
SVOCs TICs Compound Name		N/A	NONE	-	-		-	
SVOC % Match	%	N/A	NONE	-	-		-	
SVOCs TICs Compound Name		N/A	NONE	-	-		-	
SVOC % Match	%	N/A	NONE	-	-		-	
SVOCs TICs Compound Name		N/A	NONE	-	-		-	
SVOC % Match	%	N/A	NONE	-	-		-	
SVOCs TICs Compound Name		N/A	NONE	-	-		-	
SVOC % Match	%	N/A	NONE	-	-		-	

Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539347	1539348	1539349	1539350
Sample Reference				TP89	TP90	TP91	TP92
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				12/06/2020	11/06/2020	11/06/2020	11/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Pesticides							
Alachlor	µg/kg	10	NONE	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-
Deltamethrin	µg/kg	10	NONE	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-
Etrimfos	µg/kg	10	NONE	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-
Methoxychlor, p,p'	µg/kg	20	NONE	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-



Analytical Report Number: 20-15144

Project / Site name: Area 8, The Lanes, Penwortham
Your Order No: 1018

Lab Sample Number				1539347	1539348	1539349	1539350
Sample Reference				TP89	TP90	TP91	TP92
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled				12/06/2020	11/06/2020	11/06/2020	11/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-

Herbicides

Aldicarb	µg/kg	10	NONE	-	-	-	-
Aldicarb Sulfone	µg/kg	10	NONE	-	-	-	-
Aldicarb Sulfoxide	µg/kg	50	NONE	-	-	-	-
Atrazine	µg/kg	10	NONE	-	-	-	-
Carbaryl	µg/kg	10	NONE	-	-	-	-
Carbofuran	µg/kg	10	NONE	-	-	-	-
Carbofuran, 3-OH	µg/kg	20	NONE	-	-	-	-
Chlortoluron	µg/kg	10	NONE	-	-	-	-
Cyanazine	µg/kg	10	NONE	-	-	-	-
Diflufenzuron	µg/kg	50	NONE	-	-	-	-
Diuron	µg/kg	10	NONE	-	-	-	-
Fluometuron	µg/kg	10	NONE	-	-	-	-
Isoproturon	µg/kg	10	NONE	-	-	-	-
Linuron	µg/kg	20	NONE	-	-	-	-
Methiocarb	µg/kg	10	NONE	-	-	-	-
Methomyl	µg/kg	10	NONE	-	-	-	-
Oxamyl	µg/kg	10	NONE	-	-	-	-
Prometryn	µg/kg	10	NONE	-	-	-	-
Propazine	µg/kg	10	NONE	-	-	-	-
Propoxur	µg/kg	10	NONE	-	-	-	-
Siduron	µg/kg	10	NONE	-	-	-	-
Simazine	µg/kg	10	NONE	-	-	-	-
Tebuthiuron	µg/kg	10	NONE	-	-	-	-
Terbutylazine	µg/kg	10	NONE	-	-	-	-
Terbutryn	µg/kg	10	NONE	-	-	-	-
Thiadiazuron	µg/kg	10	NONE	-	-	-	-
Trietazine	µg/kg	10	NONE	-	-	-	-



Analytical Report Number : 20-15144

Project / Site name: Area 8, The Lanes, Penwortham

* 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 *
1539332	WS58	None Supplied	0.00-0.25	Brown loam and clay with gravel and vegetation.
1539333	WS62	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539334	WS63	None Supplied	0.00-0.50	Brown loam and clay with gravel and vegetation.
1539335	WS64	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1539336	WS65	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1539337	WS66	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539338	WS67	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539339	WS69	None Supplied	0.30-0.80	Brown loam and clay with gravel and vegetation.
1539340	SA05	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539341	TP79	None Supplied	0.30-0.90	Brown loam and clay with gravel and vegetation.
1539342	TP80	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539343	TP82	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539344	TP84	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539345	TP86	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539346	TP88	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539347	TP89	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539348	TP90	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1539349	TP91	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.
1539350	TP92	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 20-15144

Project / Site name: Area 8, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Herbicides by LC-MS	Determination of Herbicides in soil by LC MS	In-house method	L056B-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

Iss No 20-15144-2 Area 8, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 27 of 28



Analytical Report Number : 20-15144

Project / Site name: Area 8, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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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.



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Analytical Report Number : 20-15141

Project / Site name:	Area 6, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1017	Analysis completed by:	25/06/2020
Report Issue Number:	1	Report issued on:	25/06/2020
Samples Analysed:	6 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham
Your Order No: 1017

Lab Sample Number	1539319	1539320	1539321	1539322	1539323			
Sample Reference	WS53	WS55	SA04	TP70	TP71			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.40	0.10-0.45	0.25-0.70	0.00-0.30	0.00-0.30			
Date Sampled	15/06/2020	15/06/2020	15/06/2020	12/06/2020	12/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	11	11	8.2	11
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.8	9.1	7.1	6.1	6.2
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	170	29	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.086	0.014	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	86.3	14.4	-	-
Organic Matter	%	0.1	MCERTS	-	4.9	6.4	-	5.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	2.2	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	6.0	< 0.05	-	-
Fluorene	mg/kg	0.05	MCERTS	-	6.3	< 0.05	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	75	0.46	-	-
Anthracene	mg/kg	0.05	MCERTS	-	23	< 0.05	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	170	1.6	-	-
Pyrene	mg/kg	0.05	MCERTS	-	140	1.6	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	74	1.1	-	-
Chrysene	mg/kg	0.05	MCERTS	-	52	1.1	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	77	2.6	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	24	0.46	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	56	1.9	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	30	1.0	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	9.3	0.25	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	32	1.1	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	775	13.3	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	6.6	15	8.4	15
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.2	0.5	0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	34	11	29	25	40
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	11	29	26	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	83	25	72	22	42
Lead (aqua regia extractable)	mg/kg	1	MCERTS	100	37	190	37	70
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	< 0.3	0.5	0.7	0.4
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	29	12	29	21	32
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	160	43	250	74	120



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham
Your Order No: 1017

Lab Sample Number	1539319			1539320			1539321			1539322			1539323		
Sample Reference	WS53			WS55			SA04			TP70			TP71		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.40			0.10-0.45			0.25-0.70			0.00-0.30			0.00-0.30		
Date Sampled	15/06/2020			15/06/2020			15/06/2020			12/06/2020			12/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1539319	1539320	1539321	1539322	1539323
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
p & m-xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
o-xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	1539319	1539320	1539321	1539322	1539323
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	< 8.0	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	< 8.0	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	1539319	1539320	1539321	1539322	1539323
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	5.8	-	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	8.5	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	20	-	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	62	-	16
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	96	-	22



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham
Your Order No: 1017

Lab Sample Number	1539319				1539320				1539321				1539322				1539323			
Sample Reference	WS53				WS55				SA04				TP70				TP71			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.40				0.10-0.45				0.25-0.70				0.00-0.30				0.00-0.30			
Date Sampled	15/06/2020				15/06/2020				15/06/2020				12/06/2020				12/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs																		
Analytical Parameter	Units	Limit of detection	Accreditation Status	1539319	1539320	1539321	1539322	1539323	1539319	1539320	1539321	1539322	1539323	1539319	1539320	1539321	1539322	1539323
Aniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1										
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	< 0.2										
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05										
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	< 0.2										
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05										
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1										
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	< 0.1										
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	< 0.1										
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1										
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05										
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05										
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3										
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05										
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	2.4										
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	0.35										
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2										
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3										
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	3.1										
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	2.9										
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3										
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	1.2										
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	1.3										
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	1.2										
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	0.63										
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	1.0										
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	0.51										
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05										
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	0.56										



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham
 Your Order No: 1017

Lab Sample Number	1539319	1539320	1539321	1539322	1539323			
Sample Reference	WS53	WS55	SA04	TP70	TP71			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.00-0.40	0.10-0.45	0.25-0.70	0.00-0.30	0.00-0.30			
Date Sampled	15/06/2020	15/06/2020	15/06/2020	12/06/2020	12/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	ND
SVOC % Match	%	N/A	NONE	-	-	-	-	0



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham

Your Order No: 1017

Lab Sample Number				1539324				
Sample Reference				TP72				
Sample Number				None Supplied				
Depth (m)				0.80-1.00				
Date Sampled				15/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	13				
Total mass of sample received	kg	0.001	NONE	1.2				

Asbestos in Soil	Type	N/A	ISO 17025	-				
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2				
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-				
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-				
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-				
Organic Matter	%	0.1	MCERTS	-				

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-				
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.1				
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2				
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2				
Chromium (III)	mg/kg	1	NONE	45				
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	46				
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19				
Lead (aqua regia extractable)	mg/kg	1	MCERTS	13				
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3				
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	42				
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0				
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	52				



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham
Your Order No: 1017

Lab Sample Number				1539324				
Sample Reference				TP72				
Sample Number				None Supplied				
Depth (m)				0.80-1.00				
Date Sampled				15/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-				
Toluene	µg/kg	1	MCERTS	-				
Ethylbenzene	µg/kg	1	MCERTS	-				
p & m-xylene	µg/kg	1	MCERTS	-				
o-xylene	µg/kg	1	MCERTS	-				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-				
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-				
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-				
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-				
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-				
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-				
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-				
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-				
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-				
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-				



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham

Your Order No: 1017

Lab Sample Number				1539324				
Sample Reference				TP72				
Sample Number				None Supplied				
Depth (m)				0.80-1.00				
Date Sampled				15/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-				
Phenol	mg/kg	0.2	ISO 17025	-				
2-Chlorophenol	mg/kg	0.1	MCERTS	-				
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-				
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-				
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-				
2-Methylphenol	mg/kg	0.3	MCERTS	-				
Hexachloroethane	mg/kg	0.05	MCERTS	-				
Nitrobenzene	mg/kg	0.3	MCERTS	-				
4-Methylphenol	mg/kg	0.2	NONE	-				
Isophorone	mg/kg	0.2	MCERTS	-				
2-Nitrophenol	mg/kg	0.3	MCERTS	-				
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-				
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-				
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-				
Naphthalene	mg/kg	0.05	MCERTS	-				
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-				
4-Chloroaniline	mg/kg	0.1	NONE	-				
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-				
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-				
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-				
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-				
2-Methylnaphthalene	mg/kg	0.1	NONE	-				
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-				
Dimethylphthalate	mg/kg	0.1	MCERTS	-				
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-				
Acenaphthylene	mg/kg	0.05	MCERTS	-				
Acenaphthene	mg/kg	0.05	MCERTS	-				
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-				
Dibenzofuran	mg/kg	0.2	MCERTS	-				
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-				
Diethyl phthalate	mg/kg	0.2	MCERTS	-				
4-Nitroaniline	mg/kg	0.2	MCERTS	-				
Fluorene	mg/kg	0.05	MCERTS	-				
Azobenzene	mg/kg	0.3	MCERTS	-				
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-				
Hexachlorobenzene	mg/kg	0.3	MCERTS	-				
Phenanthrene	mg/kg	0.05	MCERTS	-				
Anthracene	mg/kg	0.05	MCERTS	-				
Carbazole	mg/kg	0.3	MCERTS	-				
Dibutyl phthalate	mg/kg	0.2	MCERTS	-				
Anthraquinone	mg/kg	0.3	MCERTS	-				
Fluoranthene	mg/kg	0.05	MCERTS	-				
Pyrene	mg/kg	0.05	MCERTS	-				
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-				
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-				
Chrysene	mg/kg	0.05	MCERTS	-				
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-				
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-				
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-				
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-				



Analytical Report Number: 20-15141

Project / Site name: Area 6, The Lanes, Penwortham

Your Order No: 1017

Lab Sample Number				1539324				
Sample Reference				TP72				
Sample Number				None Supplied				
Depth (m)				0.80-1.00				
Date Sampled				15/06/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-				
SVOC % Match	%	N/A	NONE	-				



Analytical Report Number : 20-15141

Project / Site name: Area 6, The Lanes, Penwortham

* 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 *
1539319	WS53	None Supplied	0.00-0.40	Brown loam and sand with gravel and vegetation.
1539320	WS55	None Supplied	0.10-0.45	Brown loam and clay with gravel.
1539321	SA04	None Supplied	0.25-0.70	Brown loam and sand with gravel and vegetation.
1539322	TP70	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.
1539323	TP71	None Supplied	0.00-0.30	Brown loam and sand with gravel and vegetation.
1539324	TP72	None Supplied	0.80-1.00	Brown clay with gravel.

Analytical Report Number : 20-15141

Project / Site name: Area 6, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.



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Analytical Report Number : 20-14152

Project / Site name:	Area 9, The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	19/06/2020
Report Issue Number:	1	Report issued on:	19/06/2020
Samples Analysed:	5 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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

Analytical Report Number: 20-14152

Project / Site name: Area 9, The Lanes, Penwortham

Lab Sample Number	1533770	1533771	1533772	1533773	1533774			
Sample Reference	WS70	WS71	WS72	WS73	TP97			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.20-0.50	0.00-0.40	0.70-0.90	0.00-0.40	0.00-0.30			
Date Sampled	08/06/2020	08/06/2020	08/06/2020	08/06/2020	05/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	3.1	11	11	10	12
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.1	1.1	1.1

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.0	6.2	6.6	6.2	6.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	41	20	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.021	0.0098	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	20.6	9.8	-	-	-
Organic Matter	%	0.1	MCERTS	6.4	8.1	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	1.4	< 0.05	-	-	-
Anthracene	mg/kg	0.05	MCERTS	0.56	< 0.05	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	3.3	0.36	-	-	-
Pyrene	mg/kg	0.05	MCERTS	3.3	0.35	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.2	0.24	-	-	-
Chrysene	mg/kg	0.05	MCERTS	1.7	0.18	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.7	< 0.05	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.4	< 0.05	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.9	< 0.05	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.4	< 0.05	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.38	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.8	< 0.05	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	23.0	1.13	-	-	-
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Analytical Report Number: 20-14152

Project / Site name: Area 9, The Lanes, Penwortham

Lab Sample Number	1533770	1533771	1533772	1533773	1533774			
Sample Reference	WS70	WS71	WS72	WS73	TP97			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.20-0.50	0.00-0.40	0.70-0.90	0.00-0.40	0.00-0.30			
Date Sampled	08/06/2020	08/06/2020	08/06/2020	08/06/2020	05/06/2020			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Heavy Metals / Metalloids

Element	Unit	Limit	Accreditation	1533770	1533771	1533772	1533773	1533774
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.0	17	5.8	12	21
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.4	< 0.2	0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	22	38	30	36	39
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	38	30	36	39
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	43	16	28	47
Lead (aqua regia extractable)	mg/kg	1	MCERTS	40	92	11	33	79
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.6	< 0.3	0.4	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	26	38	32	35	39
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	110	45	70	93

Monoaromatics & Oxygenates

Compound	Unit	Limit	Accreditation	1533770	1533771	1533772	1533773	1533774
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	Unit	Limit	Accreditation	1533770	1533771	1533772	1533773	1533774
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	Unit	Limit	Accreditation	1533770	1533771	1533772	1533773	1533774
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-



Analytical Report Number : 20-14152

Project / Site name: Area 9, The Lanes, Penwortham

* 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 *
1533770	WS70	None Supplied	0.20-0.50	Brown loam and clay with gravel and vegetation.
1533771	WS71	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1533772	WS72	None Supplied	0.70-0.90	Brown loam and clay with gravel and vegetation.
1533773	WS73	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1533774	TP97	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.



Analytical Report Number : 20-14152

Project / Site name: Area 9, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	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	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
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
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
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

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.



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Analytical Report Number : 20-14167

Project / Site name:	Area 7, The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	19/06/2020
Report Issue Number:	1	Report issued on:	19/06/2020
Samples Analysed:	5 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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

Analytical Report Number: 20-14167

Project / Site name: Area 7, The Lanes, Penwortham

Lab Sample Number	1533833				1533834		1533835		1533836		1533837	
Sample Reference	TP73				TP74		TP76		WS54		WS56	
Sample Number	ES				ES		ES		ES		ES	
Depth (m)	0.10				0.30		0.00-0.30		0.00-0.40		0.00-0.32	
Date Sampled	03/06/2020				03/06/2020		03/06/2020		10/06/2020		10/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	13	15	7.4	9.7	23				
Total mass of sample received	kg	0.001	NONE	1.2	1.1	1.2	1.1	1.1				

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.8	6.6	6.4	7.8	6.7
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	38	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	0.019	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	19.0	-	-
Organic Matter	%	0.1	MCERTS	-	-	7.2	-	-

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	-	-	0.25	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.41	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	0.49	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.27	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	0.25	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.30	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.17	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.33	-	-
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	-	-	2.47	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	13	18	17	26
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.3	0.4	0.6	0.8
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	41	27	41	41	44
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41	27	41	41	44
Copper (aqua regia extractable)	mg/kg	1	MCERTS	61	31	53	53	69
Lead (aqua regia extractable)	mg/kg	1	MCERTS	90	49	100	81	96
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.9	0.5	0.6	0.8	0.9
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	27	39	31	39
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.4	< 1.0	< 1.0	< 1.0	3.2
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	69	130	140	160

Analytical Report Number: 20-14167

Project / Site name: Area 7, The Lanes, Penwortham

Lab Sample Number	1533833	1533834	1533835	1533836	1533837
Sample Reference	TP73	TP74	TP76	WS54	WS56
Sample Number	ES	ES	ES	ES	ES
Depth (m)	0.10	0.30	0.00-0.30	0.00-0.40	0.00-0.32
Date Sampled	03/06/2020	03/06/2020	03/06/2020	10/06/2020	10/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1533833	1533834	1533835	1533836	1533837
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	mg/kg	0.001	MCERTS	1533833	1533834	1533835	1533836	1533837
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	< 8.0	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	1533833	1533834	1533835	1533836	1533837
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	< 1.0	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	< 2.0	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	< 10	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	< 10	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	< 10	-	-

Analytical Report Number: 20-14167

Project / Site name: Area 7, The Lanes, Penwortham

Lab Sample Number	1533833	1533834	1533835	1533836	1533837
Sample Reference	TP73	TP74	TP76	WS54	WS56
Sample Number	ES	ES	ES	ES	ES
Depth (m)	0.10	0.30	0.00-0.30	0.00-0.40	0.00-0.32
Date Sampled	03/06/2020	03/06/2020	03/06/2020	10/06/2020	10/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	1533833	1533834	1533835	1533836	1533837
Aniline	mg/kg	0.1	NONE	-	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	0.30	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	0.39	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.20	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	0.19	-
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	-	-	-	0.23	-
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	-



Analytical Report Number: 20-14167

Project / Site name: Area 7, The Lanes, Penwortham

Lab Sample Number	1533833	1533834	1533835	1533836	1533837
Sample Reference	TP73	TP74	TP76	WS54	WS56
Sample Number	ES	ES	ES	ES	ES
Depth (m)	0.10	0.30	0.00-0.30	0.00-0.40	0.00-0.32
Date Sampled	03/06/2020	03/06/2020	03/06/2020	10/06/2020	10/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name	%	N/A	NONE	-	-	-	ND	-
SVOC % Match		N/A	NONE	-	-	-	0	-

PCBs by GC-MS

PCB Congener	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	-	-	-	-
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Analytical Report Number : 20-14167

Project / Site name: Area 7, The Lanes, Penwortham

* 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 *
1533833	TP73	ES	0.10	Brown loam and clay with gravel and vegetation.
1533834	TP74	ES	0.30	Brown loam and clay with gravel and vegetation.
1533835	TP76	ES	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533836	WS54	ES	0.00-0.40	Brown loam and clay with gravel and vegetation.
1533837	WS56	ES	0.00-0.32	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-14167

Project / Site name: Area 7, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.

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The results included within the report relate only to the sample(s) submitted for testing.

Page 7 of 7



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Analytical Report Number : 20-14081

Project / Site name:	Area 10, The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	19/06/2020
Report Issue Number:	1	Report issued on:	19/06/2020
Samples Analysed:	12 soil samples		

Signed: *Karolina Marek*

Karolina Marek
PL Head of 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

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

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 12

Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number	1533449			1533450		1533451		1533452		1533453	
Sample Reference	WS75			WS76		WS77		WS78		WS79	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.70-1.30			0.00-0.20		0.00-0.40		0.00-0.30		0.00-0.30	
Date Sampled	08/06/2020			08/06/2020		08/06/2020		08/06/2020		08/06/2020	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	48	9.5	10	13	15	15	15	15
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.1	1.2	1.1	1.2	1.1	1.1

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.9	6.0	6.2	5.6	5.6
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	77	22	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.038	0.011	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	38.4	10.9	-	-	-
Organic Matter	%	0.1	MCERTS	19	6.8	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.81	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.99	-	-	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	1.1	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.56	-	-	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.47	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.46	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.30	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.57	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.22	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.28	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	5.73	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.6	13	14	19	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	0.4	0.5	0.4
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	19	40	38	42	40
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	40	38	42	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	24	27	34	37	29
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11	53	46	71	75
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.4	0.4	0.7	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	35	35	35	36
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.3	2.7	< 1.0	3.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	32	81	80	97	85

Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number	1533449				1533450	1533451	1533452	1533453
Sample Reference	WS75				WS76	WS77	WS78	WS79
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.70-1.30				0.00-0.20	0.00-0.40	0.00-0.30	0.00-0.30
Date Sampled	08/06/2020				08/06/2020	08/06/2020	08/06/2020	08/06/2020
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs								
Analytical Parameter	Units	Limit of detection	Accreditation Status	1533449	1533450	1533451	1533452	1533453
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	0.24	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.32	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	0.43	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.22	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	0.18	-	-
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	-	-



Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number	1533449				1533450				1533451				1533452				1533453			
Sample Reference	WS75				WS76				WS77				WS78				WS79			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.70-1.30				0.00-0.20				0.00-0.40				0.00-0.30				0.00-0.30			
Date Sampled	08/06/2020				08/06/2020				08/06/2020				08/06/2020				08/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)																				
	Units				Limit of detection				Accreditation Status											

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	ND	-	-
SVOC % Match	%	N/A	NONE	-	-	0	-	-

Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number	1533454			1533455		1533456		1533457		1533458	
Sample Reference	WS80			TP98		TP99		TP101		TP106	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.40			0.00-0.30		0.00-0.30		0.00-0.25		1.00-1.20	
Date Sampled	08/06/2020			08/06/2020		08/06/2020		08/06/2020		08/06/2020	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	16	16	13	11	11	11	11
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.2	1.1	0.10	0.10	0.10	0.10

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.7	6.7	5.9	6.3	7.8
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	16	17	12	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.4	0.4	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	41	37	36	40	37
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	42	37	36	40	37
Copper (aqua regia extractable)	mg/kg	1	MCERTS	30	32	35	29	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	66	46	84	43	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.5	0.5	0.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	37	36	39	36
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	2.7	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	96	84	100	89	51

Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number				1533454	1533455	1533456	1533457	1533458
Sample Reference				WS80	TP98	TP99	TP101	TP106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.40	0.00-0.30	0.00-0.30	0.00-0.25	1.00-1.20
Date Sampled				08/06/2020	08/06/2020	08/06/2020	08/06/2020	08/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.70	-	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	0.36	-	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	3.2	-	0.94	-	-
Anthracene	mg/kg	0.05	MCERTS	0.32	-	0.25	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	3.4	-	1.8	-	-
Pyrene	mg/kg	0.05	MCERTS	3.3	-	1.9	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	-	1.1	-	-
Chrysene	mg/kg	0.05	MCERTS	1.1	-	0.76	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.2	-	1.2	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.45	-	0.45	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.92	-	0.96	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.47	-	0.51	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.24	-	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.47	-	0.55	-	-



Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number				1533454	1533455	1533456	1533457	1533458
Sample Reference				WS80	TP98	TP99	TP101	TP106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.40	0.00-0.30	0.00-0.30	0.00-0.25	1.00-1.20
Date Sampled				08/06/2020	08/06/2020	08/06/2020	08/06/2020	08/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	ND	-	ND	-	-
SVOC % Match	%	N/A	NONE	0	-	0	-	-

Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number				1533459	1533460			
Sample Reference				TP107	TP109			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				08/06/2020	08/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	9.0	8.5			
Total mass of sample received	kg	0.001	NONE	1.2	1.2			

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.7	5.3			
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-			
Organic Matter	%	0.1	MCERTS	-	-			

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-			
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	15			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.3			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	36	35			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	36	35			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	37	25			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	93	57			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	0.9			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	33			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	94			

Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number				1533459	1533460			
Sample Reference				TP107	TP109			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				08/06/2020	08/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-			
Phenol	mg/kg	0.2	ISO 17025	-	-			
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-			
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-			
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-			
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-			
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-			
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-			
2-Methylphenol	mg/kg	0.3	MCERTS	-	-			
Hexachloroethane	mg/kg	0.05	MCERTS	-	-			
Nitrobenzene	mg/kg	0.3	MCERTS	-	-			
4-Methylphenol	mg/kg	0.2	NONE	-	-			
Isophorone	mg/kg	0.2	MCERTS	-	-			
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-			
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-			
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-			
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-			
Naphthalene	mg/kg	0.05	MCERTS	-	-			
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-			
4-Chloroaniline	mg/kg	0.1	NONE	-	-			
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-			
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-			
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-			
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-			
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-			
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-			
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-			
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-			
Acenaphthylene	mg/kg	0.05	MCERTS	-	-			
Acenaphthene	mg/kg	0.05	MCERTS	-	-			
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-			
Dibenzofuran	mg/kg	0.2	MCERTS	-	-			
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-			
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-			
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-			
Fluorene	mg/kg	0.05	MCERTS	-	-			
Azobenzene	mg/kg	0.3	MCERTS	-	-			
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-			
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-			
Phenanthrene	mg/kg	0.05	MCERTS	-	-			
Anthracene	mg/kg	0.05	MCERTS	-	-			
Carbazole	mg/kg	0.3	MCERTS	-	-			
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-			
Anthraquinone	mg/kg	0.3	MCERTS	-	-			
Fluoranthene	mg/kg	0.05	MCERTS	-	-			
Pyrene	mg/kg	0.05	MCERTS	-	-			
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-			
Chrysene	mg/kg	0.05	MCERTS	-	-			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-			



Analytical Report Number: 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Lab Sample Number				1533459	1533460			
Sample Reference				TP107	TP109			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.00-0.30	0.00-0.30			
Date Sampled				08/06/2020	08/06/2020			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-			
SVOC % Match	%	N/A	NONE	-	-			



Analytical Report Number : 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

* 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 *
1533449	WS75	None Supplied	0.70-1.30	Brown loam and clay with gravel and vegetation.
1533450	WS76	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533451	WS77	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1533452	WS78	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533453	WS79	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533454	WS80	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1533455	TP98	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533456	TP99	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533457	TP101	None Supplied	0.00-0.25	Brown loam and clay with gravel and vegetation.
1533458	TP106	None Supplied	1.00-1.20	Brown loam and clay with gravel and vegetation.
1533459	TP107	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533460	TP109	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.



Analytical Report Number : 20-14081

Project / Site name: Area 10, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	NONE

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.

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533461				1533462		1533463		1533464		1533465	
Sample Reference	TP113				TP115		TP116		TP118		TP121	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.00-0.30		0.00-0.30		0.00-0.30	
Date Sampled	10/06/2020				10/06/2020		10/06/2020		09/06/2020		09/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	9.9	13	14	15	15	13	13	13	
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.1	1.1	1.1	1.2	1.2	1.2	

Asbestos in Soil	Type	N/A	ISO 17025	-	-	Not-detected	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.1	5.8	5.4	5.7	6.1
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	15	13	19	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2	0.2	0.5	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	39	28	27	31	35
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	39	28	27	32	36
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21	32	35	33	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	42	74	64	58	29
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	2.2	1.7	0.7	0.4
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	24	24	32	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	2.0	3.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	68	74	74	88	63



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533461			1533462			1533463			1533464			1533465		
Sample Reference	TP113			TP115			TP116			TP118			TP121		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30			0.00-0.30		
Date Sampled	10/06/2020			10/06/2020			10/06/2020			09/06/2020			09/06/2020		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics & Oxygenates

Compound	Units	Limit of detection	Accreditation Status	1533461	1533462	1533463	1533464	1533465
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	1533461	1533462	1533463	1533464	1533465
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	1533461	1533462	1533463	1533464	1533465
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533461				1533462				1533463				1533464				1533465			
Sample Reference	TP113				TP115				TP116				TP118				TP121			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.00-0.30				0.00-0.30				0.00-0.30				0.00-0.30				0.00-0.30			
Date Sampled	10/06/2020				10/06/2020				10/06/2020				09/06/2020				09/06/2020			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs																		
Analytical Parameter	Units	Limit of detection	Accreditation Status	1533461	1533462	1533463	1533464	1533465	1533461	1533462	1533463	1533464	1533465	1533461	1533462	1533463	1533464	1533465
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-										
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	-										
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	-										
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-										
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-										
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-										
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-										
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-										
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Phenanthrene	mg/kg	0.05	MCERTS	0.24	-	-	< 0.05	-										
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-										
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-										
Fluoranthene	mg/kg	0.05	MCERTS	0.50	-	-	< 0.05	-										
Pyrene	mg/kg	0.05	MCERTS	0.46	-	-	< 0.05	-										
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-										
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.34	-	-	< 0.05	-										
Chrysene	mg/kg	0.05	MCERTS	0.32	-	-	< 0.05	-										
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.30	-	-	< 0.05	-										
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.16	-	-	< 0.05	-										
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.27	-	-	< 0.05	-										
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-										



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533461	1533462	1533463	1533464	1533465
Sample Reference	TP113	TP115	TP116	TP118	TP121
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30
Date Sampled	10/06/2020	10/06/2020	10/06/2020	09/06/2020	09/06/2020
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	ND	-	-	ND	-
SVOC % Match	%	N/A	NONE	0	-	-	0	-

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533466				1533467		1533468		1533469		1533470	
Sample Reference	TP122				TP123		TP124		TP126		TP127	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.30				0.00-0.30		0.00-0.30		0.00-0.30		1.00-1.20	
Date Sampled	09/06/2020				09/06/2020		09/06/2020		09/06/2020		09/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	12	11	11	11	8.8	9.8			
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.4	5.9	5.7	5.9	7.1
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Organic Matter	%	0.1	MCERTS	-	-	-	-	-

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	15	21	17	7.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.3	0.4	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	32	32	33	31	36
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	33	33	31	36
Copper (aqua regia extractable)	mg/kg	1	MCERTS	33	33	53	32	15
Lead (aqua regia extractable)	mg/kg	1	MCERTS	59	84	90	64	13
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.5	1.1	1.1	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	34	35	33	40
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	2.9	2.3	2.7	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	75	110	86	49



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533466	1533467	1533468	1533469	1533470
Sample Reference				TP122	TP123	TP124	TP126	TP127
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	1.00-1.20
Date Sampled				09/06/2020	09/06/2020	09/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-



4041



Environmental Science

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533466	1533467	1533468	1533469	1533470
Sample Reference				TP122	TP123	TP124	TP126	TP127
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	1.00-1.20
Date Sampled				09/06/2020	09/06/2020	09/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05

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The results included within the report relate only to the sample(s) submitted for testing.

Page 8 of 23



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533466	1533467	1533468	1533469	1533470
Sample Reference				TP122	TP123	TP124	TP126	TP127
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.30	0.00-0.30	0.00-0.30	0.00-0.30	1.00-1.20
Date Sampled				09/06/2020	09/06/2020	09/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	ND	-	-	ND
SVOC % Match	%	N/A	NONE	-	0	-	-	0

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533471				1533472		1533473		1533474		1533475	
Sample Reference	TP131				TP205		TP206		TP207		WS82	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	1.00-1.20				0.50-1.00		0.40-0.80		0.40-0.60		0.00-0.20	
Date Sampled	09/06/2020				11/06/2020		11/06/2020		11/06/2020		09/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	17	23	35	24	12	12	12	12	
Total mass of sample received	kg	0.001	NONE	1.1	1.2	1.1	1.2	1.1	1.2	1.1	1.1	

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7	6.4	6.5	6.5	5.9
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	190	260	140	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.096	0.13	0.068	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	95.7	131	67.7	-
Organic Matter	%	0.1	MCERTS	-	10	7.3	10	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	0.60	1.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	0.50	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	1.1	2.0	-
Fluorene	mg/kg	0.05	MCERTS	-	0.26	0.85	1.8	-
Phenanthrene	mg/kg	0.05	MCERTS	-	1.5	6.5	15	-
Anthracene	mg/kg	0.05	MCERTS	-	0.58	1.2	3.7	-
Fluoranthene	mg/kg	0.05	MCERTS	-	2.7	7.3	17	-
Pyrene	mg/kg	0.05	MCERTS	-	2.9	6.4	15	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	3.2	4.0	10	-
Chrysene	mg/kg	0.05	MCERTS	-	3.2	3.3	8.3	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	10	3.4	8.8	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	3.2	1.9	6.1	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	12	3.1	8.9	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	6.0	1.6	4.8	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	1.7	0.50	1.3	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	8.0	1.8	4.8	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	56.0	43.6	109	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	94	100	61	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	1.7	1.0	0.8	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	50	41	49	37	29
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	50	42	49	37	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	28	310	300	390	28
Lead (aqua regia extractable)	mg/kg	1	MCERTS	22	830	410	420	56
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.3	2.6	0.7	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	51	95	130	74	29
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	2.9	< 1.0	< 1.0	2.4
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	87	650	610	440	77

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533471	1533472	1533473	1533474	1533475
Sample Reference				TP131	TP205	TP206	TP207	WS82
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-1.20	0.50-1.00	0.40-0.80	0.40-0.60	0.00-0.20
Date Sampled				09/06/2020	11/06/2020	11/06/2020	11/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533471	1533472	1533473	1533474	1533475
Sample Reference				TP131	TP205	TP206	TP207	WS82
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-1.20	0.50-1.00	0.40-0.80	0.40-0.60	0.00-0.20
Date Sampled				09/06/2020	11/06/2020	11/06/2020	11/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533471	1533472	1533473	1533474	1533475
Sample Reference				TP131	TP205	TP206	TP207	WS82
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00-1.20	0.50-1.00	0.40-0.80	0.40-0.60	0.00-0.20
Date Sampled				09/06/2020	11/06/2020	11/06/2020	11/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	-
SVOC % Match	%	N/A	NONE	-	-	-	-	-

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533476				1533477		1533478		1533479		1533480	
Sample Reference	WS83				WS84		WS85		WS86		WS87	
Sample Number	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.00-0.20				0.00-0.20		0.30-0.40		0.00-0.40		0.30-1.29	
Date Sampled	09/06/2020				09/06/2020		10/06/2020		09/06/2020		09/06/2020	
Time Taken	None Supplied				None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	8.2	9.4	13	11	33				
Total mass of sample received	kg	0.001	NONE	1.1	1.2	1.1	0.10	1.1				

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.0	5.8	5.6	5.3	6.3
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	160
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	0.079
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	78.7
Organic Matter	%	0.1	MCERTS	-	-	-	-	8.2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	0.25
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	0.20
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	0.52
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	0.41
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	4.2
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	0.82
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	6.8
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	6.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	4.4
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	3.8
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	4.4
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	2.5
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	4.0
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	2.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	0.64
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	2.3

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	43.8
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	22	17	14	76
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	0.3	0.3	1.8
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	33	35	36	33	40
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	36	36	34	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	49	43	34	36	280
Lead (aqua regia extractable)	mg/kg	1	MCERTS	73	88	59	66	350
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	1.9	0.6	1.2	2.1
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	34	37	37	35	86
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	2.5	< 1.0	< 1.0	3.7
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	100	110	84	750

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533476	1533477	1533478	1533479	1533480
Sample Reference				WS83	WS84	WS85	WS86	WS87
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.30-0.40	0.00-0.40	0.30-1.29
Date Sampled				09/06/2020	09/06/2020	10/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
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	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	18
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	56
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	75



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533476	1533477	1533478	1533479	1533480
Sample Reference				WS83	WS84	WS85	WS86	WS87
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.30-0.40	0.00-0.40	0.30-1.29
Date Sampled				09/06/2020	09/06/2020	10/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	0.25
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	0.20
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	0.52
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	0.41
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	4.2
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	0.82
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	6.8
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	6.3
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	4.4
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	3.8
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	4.4
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	2.5
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	4.0
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	2.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	0.64
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	2.3



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533476	1533477	1533478	1533479	1533480
Sample Reference				WS83	WS84	WS85	WS86	WS87
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.30-0.40	0.00-0.40	0.30-1.29
Date Sampled				09/06/2020	09/06/2020	10/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	ND
SVOC % Match	%	N/A	NONE	-	-	-	-	0

Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number	1533481	1533482	1533483	1533484				
Sample Reference	WS88	WS89	WS91	WS98				
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied				
Depth (m)	0.00-0.20	0.00-0.20	0.00-0.20	0.00-0.30				
Date Sampled	09/06/2020	09/06/2020	09/06/2020	09/06/2020				
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	18	17	13	22	
Total mass of sample received	kg	0.001	NONE	1.2	1.1	1.1	1.1	

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	5.4	5.7	5.9	6.7	
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	
Organic Matter	%	0.1	MCERTS	-	-	-	-	

Speciated PAHs

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

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	-	
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	15	21	19	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.3	0.3	0.5	
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	1.3	
Chromium (III)	mg/kg	1	NONE	32	39	41	40	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	39	41	42	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	40	24	29	34	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	82	36	44	41	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	0.5	0.7	0.6	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	37	38	42	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	3.0	< 1.0	< 1.0	3.5	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	76	78	80	



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533481	1533482	1533483	1533484
Sample Reference				WS88	WS89	WS91	WS98
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.00-0.20	0.00-0.30
Date Sampled				09/06/2020	09/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Monoaromatics & Oxygenates							
Benzene	µg/kg	1	MCERTS	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533481	1533482	1533483	1533484
Sample Reference				WS88	WS89	WS91	WS98
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	0.00-0.20	0.00-0.20	0.00-0.30
Date Sampled				09/06/2020	09/06/2020	09/06/2020	09/06/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
SVOCs							
Aniline	mg/kg	0.1	NONE	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-



Analytical Report Number: 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Lab Sample Number				1533481	1533482	1533483	1533484	
Sample Reference				WS88	WS89	WS91	WS98	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				0.00-0.20	0.00-0.20	0.00-0.20	0.00-0.30	
Date Sampled				09/06/2020	09/06/2020	09/06/2020	09/06/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs TICs

SVOCs TICs Compound Name		N/A	NONE	-	-	-	-	
SVOC % Match	%	N/A	NONE	-	-	-	-	



Analytical Report Number : 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

* 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 *
1533461	TP113	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533462	TP115	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533463	TP116	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533464	TP118	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533465	TP121	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533466	TP122	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533467	TP123	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533468	TP124	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533469	TP126	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.
1533470	TP127	None Supplied	1.00-1.20	Brown loam and clay with gravel and vegetation.
1533471	TP131	None Supplied	1.00-1.20	Brown loam and clay with gravel and vegetation.
1533472	TP205	None Supplied	0.50-1.00	Brown loam and clay with gravel and vegetation.
1533473	TP206	None Supplied	0.40-0.80	Brown loam and clay with gravel and vegetation.
1533474	TP207	None Supplied	0.40-0.60	Brown loam and clay with gravel and vegetation.
1533475	WS82	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533476	WS83	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533477	WS84	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533478	WS85	None Supplied	0.30-0.40	Brown loam and clay with gravel and vegetation.
1533479	WS86	None Supplied	0.00-0.40	Brown loam and clay with gravel and vegetation.
1533480	WS87	None Supplied	0.30-1.29	Brown loam and clay with gravel and vegetation.
1533481	WS88	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533482	WS89	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533483	WS91	None Supplied	0.00-0.20	Brown loam and clay with gravel and vegetation.
1533484	WS98	None Supplied	0.00-0.30	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-14083

Project / Site name: Area 11, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Tentatively identified compounds (SVOC) in soil	Determination of semi-volatile organic compounds total ion count in soil by extraction with dichloromethane and hexane followed by GC-MS followed by a full library scan.	In-house method based on USEPA 8270	L064-PL	D	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

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.

APPENDIX E

Soil Infiltration & Permeability Test Results

Percolation Test **HOMES ENGLAND / TAYLOR WIMPEY**



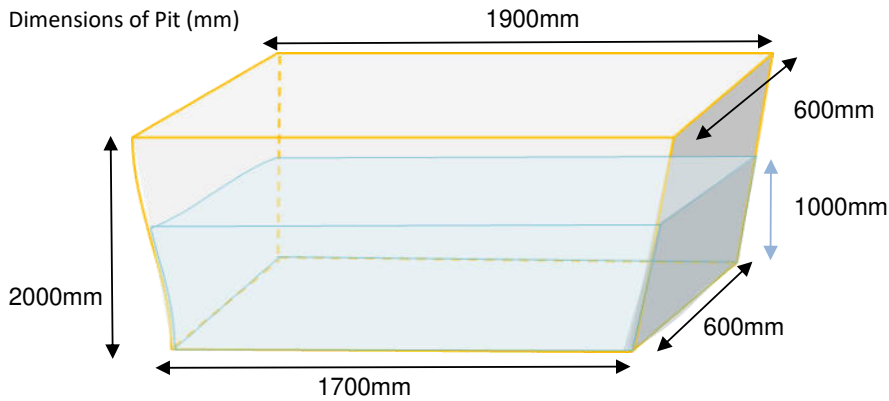
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA01
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
24/06/2020

Logged By:
JM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	2000mm		
Depth of Water (start)	1000mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.080
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.080

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	1000	1000	79.0	1010	990
0.5	1000	1000	93.0	1010	990
1.0	1000	1000	110.0	1010	990
1.5	1000	1000	122.0	1010	990
2.0	1000	1000	131.0	1010	990
3.0	1000	1000	End of Test	End of Test	End of Test
4.0	1000	1000			
5.0	1000	1000			
6.0	1000	1000			
7.0	1000	1000			
8.0	1000	1000			
9.0	1010	990			
10.0	1010	990			
16.0	1010	990			
25.0	1010	990			
39.0	1010	990			
50.0	1010	990			
67.0	1010	990			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA01

THE LANES, PENWORTHAM

Test 1

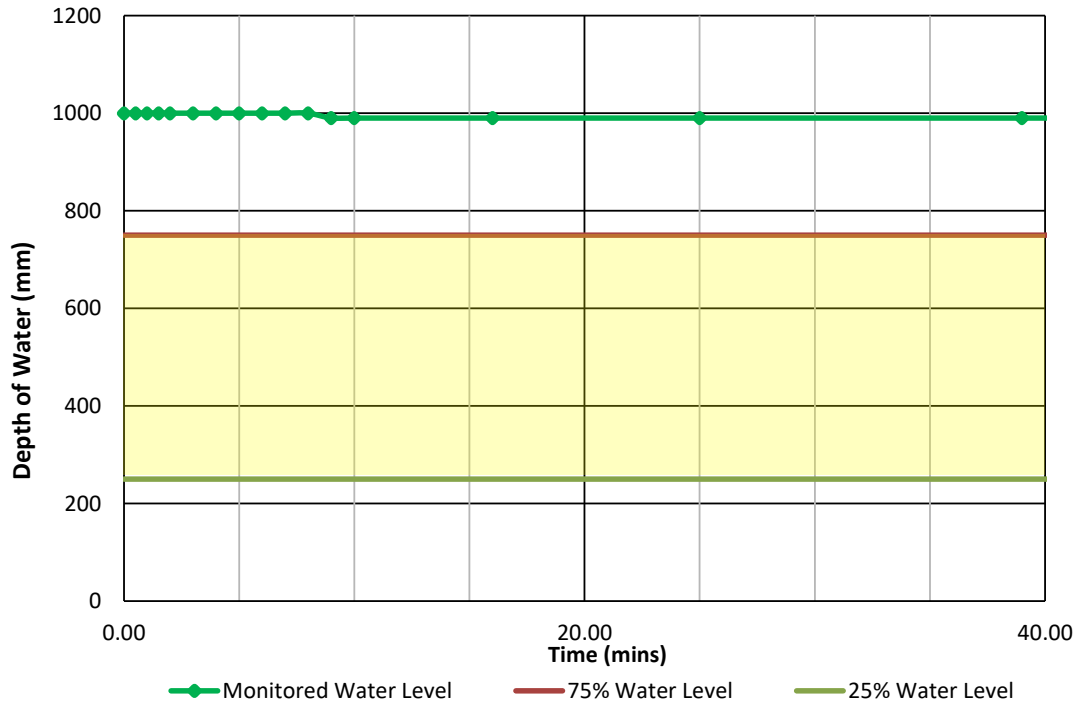
C4259



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GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	990
Time to Drain from Level 1 to Level 2 (mins)	131
Volume of water discharged (m ³)	0.0108
Discharge Area (m ²)	5.796
Soil Infiltration Rate (m/min)	1.42241E-05
Soil Infiltration Rate (m/sec)	2.37E-07

Compliance Check

Water Level at 75% effective depth (mm)	750
Water Level at 25% effective depth (mm)	250

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test **HOMES ENGLAND / TAYLOR WIMPEY**



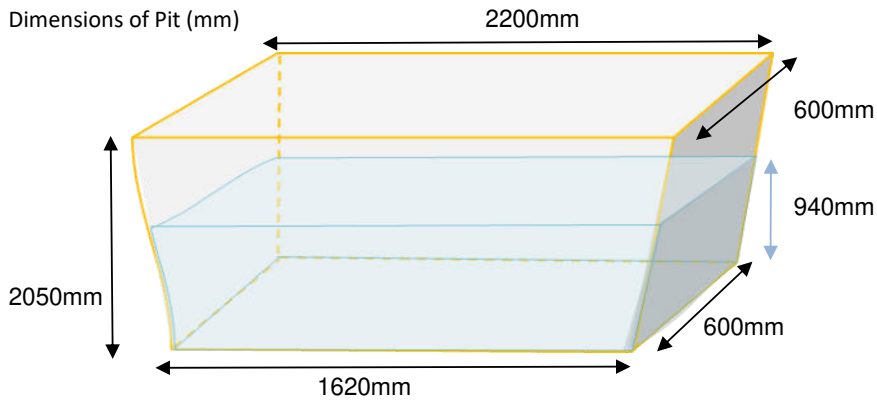
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GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA02
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
29/06/2020

Logged By:
PG

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	2050mm		
Depth of Water (start)	940mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.077
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.077

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.5	1110	940	68.0	1110	940
1.0	1110	940	92.0	1110	940
1.5	1110	940	118.0	1110	940
2.0	1110	940	133.0	1110	940
2.5	1110	940	145.0	1110	940
3.0	1110	940	End of Test	End of Test	End of Test
3.5	1110	940			
4.0	1110	940			
4.5	1110	940			
5.0	1110	940			
6.0	1110	940			
7.0	1110	940			
8.0	1110	940			
9.0	1110	940			
10.0	1110	940			
15.0	1110	940			
30.0	1110	940			
48.0	1110	940			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA02

THE LANES, PENWORTHAM

Test 1

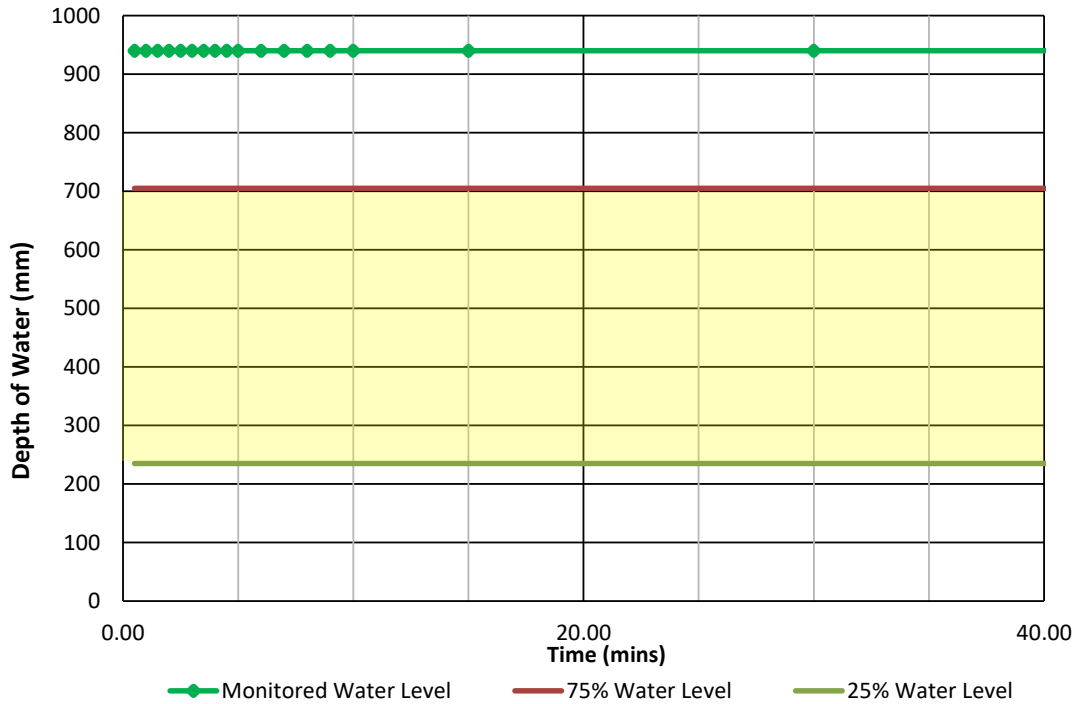
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	940
Water Level 2 (mm)	940
Time to Drain from Level 1 to Level 2 (mins)	145
Volume of water discharged (m ³)	0
Discharge Area (m ²)	5.6908
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	705
Water Level at 25% effective depth (mm)	235

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test **HOMES ENGLAND / TAYLOR WIMPEY**

SA03
Test 1

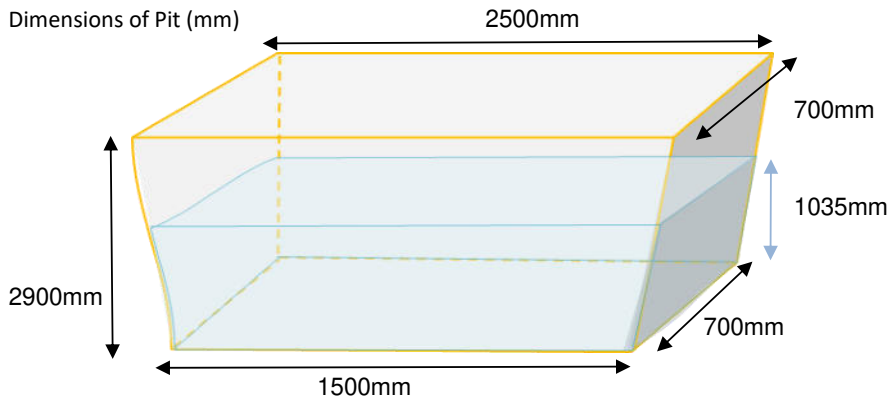
THE LANES, PENWORTHAM

C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Test Pit Construction



Date of Test:
28/06/2020

Logged By:
PG

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	2900mm		
Depth of Water (start)	1035mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.449
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.449

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	1865	1035	96.0	1865	1035
0.5	1865	1035	144.0	1865	1035
1.0	1865	1035	187.0	1865	1035
1.5	1865	1035	End of Test	End of Test	End of Test
2.0	1865	1035			
2.5	1865	1035			
3.0	1865	1035			
4.0	1865	1035			
5.0	1865	1035			
6.0	1865	1035			
7.0	1865	1035			
8.0	1865	1035			
9.0	1865	1035			
10.0	1865	1035			
21.0	1865	1035			
33.0	1865	1035			
47.0	1865	1035			
67.0	1865	1035			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA03

THE LANES, PENWORTHAM

Test 1

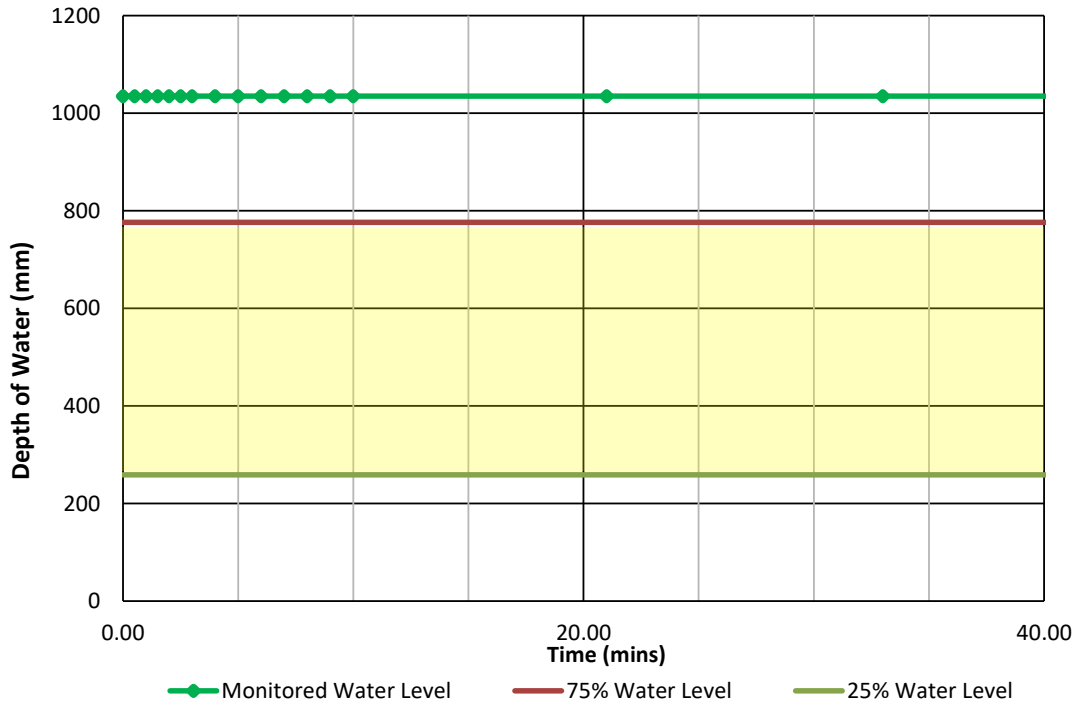
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1035
Water Level 2 (mm)	1035
Time to Drain from Level 1 to Level 2 (mins)	187
Volume of water discharged (m ³)	0
Discharge Area (m ²)	6.639
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	776.25
Water Level at 25% effective depth (mm)	258.75

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



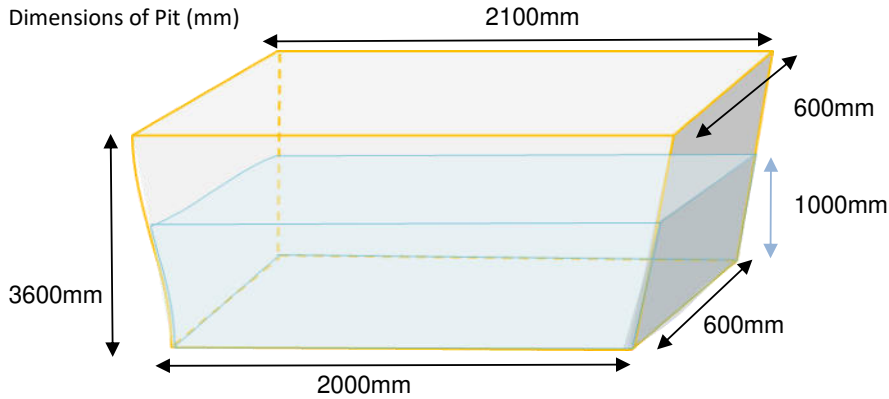
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA04
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
15/06/2020

Logged By:
JM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	3600mm		
Depth of Water (start)	1000mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.230
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.230

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	2600	1000	20.0	2600	1000
0.5	2600	1000	22.0	2600	1000
1.0	2600	1000	25.0	2600	1000
1.5	2600	1000	28.0	2600	1000
2.0	2600	1000	31.0	2600	1000
2.5	2600	1000	35.0	2600	1000
3.0	2600	1000	46.0	2600	1000
4.0	2600	1000	58.0	2600	1000
5.0	2600	1000	73.0	2600	1000
6.0	2600	1000	90.0	2600	1000
7.0	2600	1000	99.0	2600	1000
8.0	2600	1000	108.0	2600	1000
9.0	2600	1000	116.0	2600	1000
10.0	2600	1000	124.0	2600	1000
12.0	2600	1000	133.0	2600	1000
14.0	2600	1000	End of Test	End of Test	End of Test
16.0	2600	1000			
18.00	2600	1000			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA04

THE LANES, PENWORTHAM

Test 1

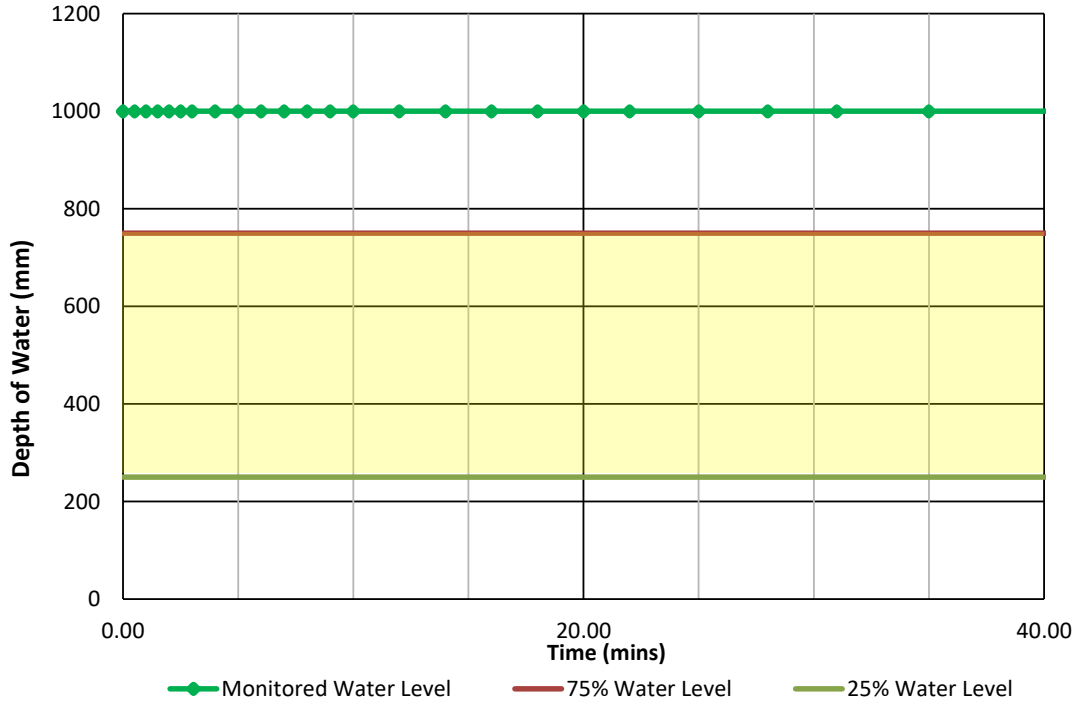
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	1000
Time to Drain from Level 1 to Level 2 (mins)	133
Volume of water discharged (m ³)	0
Discharge Area (m ²)	6.5
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	750
Water Level at 25% effective depth (mm)	250

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



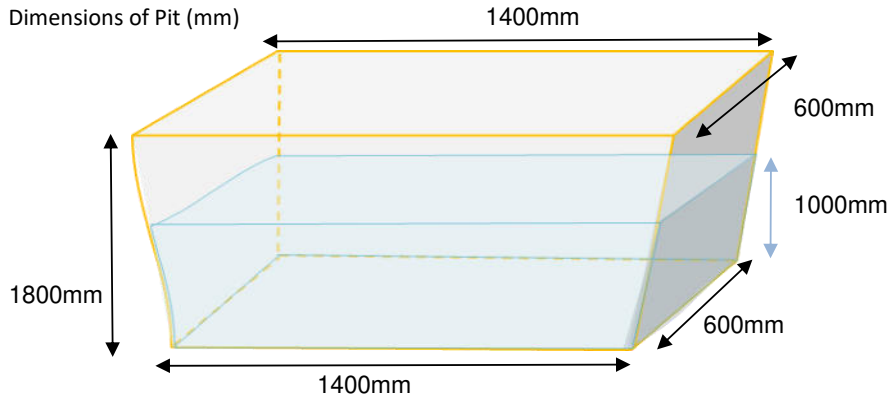
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA05
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
12/06/2020

Logged By:
JM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	1800mm		
Depth of Water (start)	1000mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	0.840
Infill Volume (m ³)	N/A	Water Volume (m ³)	0.840

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	800	1000	22.5	820	980
0.5	800	1000	25.0	830	970
1.0	800	1000	27.5	830	970
1.5	800	1000	30.0	830	970
2.0	810	990	41.0	840	960
3.0	810	990	56.0	850	950
4.0	810	990	71.0	860	940
5.0	810	990	88.0	870	930
6.0	810	990	115.0	880	920
7.0	810	990	136.0	880	920
8.0	820	980	160.0	890	910
9.0	820	980	End of Test	End of Test	End of Test
10.0	820	980			
12.0	820	980			
14.0	820	980			
16.0	820	980			
18.0	820	980			
20.0	820	980			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA05

THE LANES, PENWORTHAM

Test 1

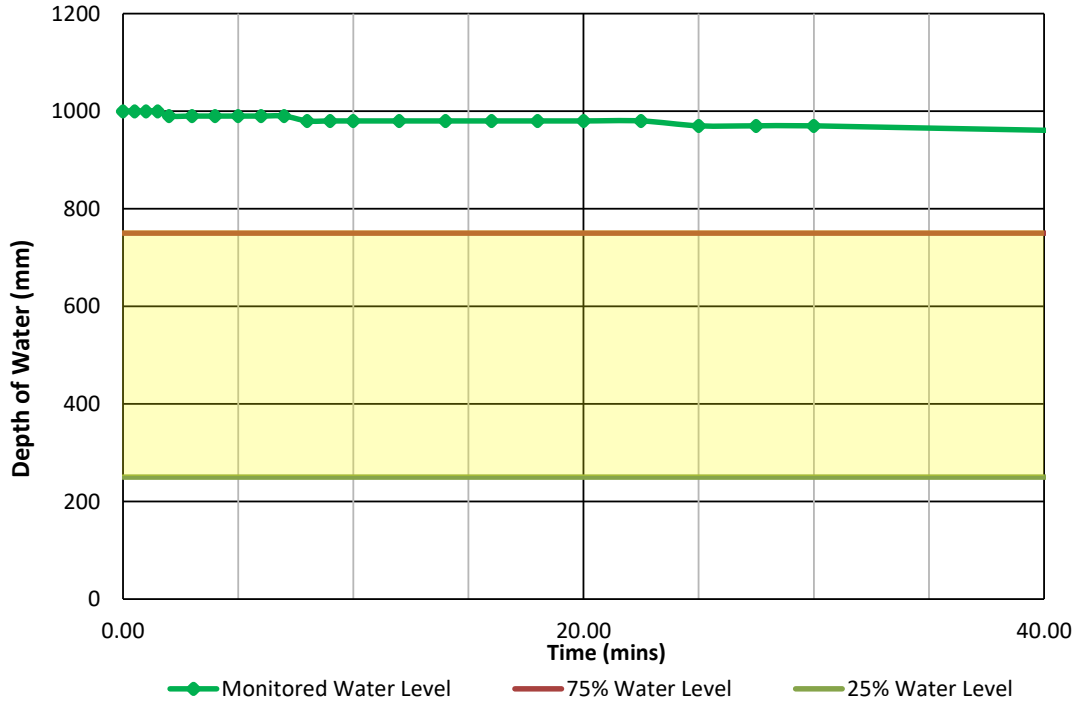
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	910
Time to Drain from Level 1 to Level 2 (mins)	160
Volume of water discharged (m ³)	0.0756
Discharge Area (m ²)	4.66
Soil Infiltration Rate (m/min)	0.000101395
Soil Infiltration Rate (m/sec)	1.69E-06

Compliance Check

Water Level at 75% effective depth (mm)	750
Water Level at 25% effective depth (mm)	250

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



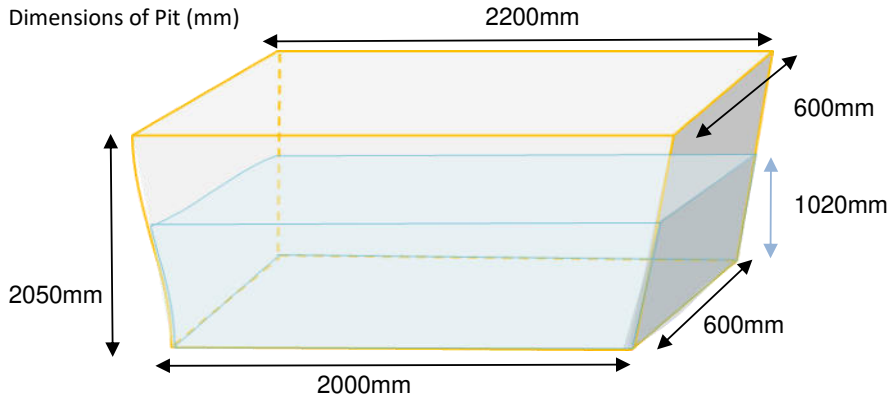
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA06
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
17/06/2020

Logged By:
JM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	2050mm		
Depth of Water (start)	1020mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.285
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.285

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	1030	1020	90.0	1030	1020
0.5	1030	1020	120.0	1030	1020
1.0	1030	1020	150.0	1030	1020
2.0	1030	1020	180.0	1030	1020
3.0	1030	1020	End of Test	End of Test	End of Test
4.0	1030	1020			
5.0	1030	1020			
6.0	1030	1020			
7.0	1030	1020			
8.0	1030	1020			
9.0	1030	1020			
10.0	1030	1020			
15.0	1030	1020			
20.0	1030	1020			
25.0	1030	1020			
30.0	1030	1020			
45.0	1030	1020			
60.0	1030	1020			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA06

Test 1

THE LANES, PENWORTHAM

C4259

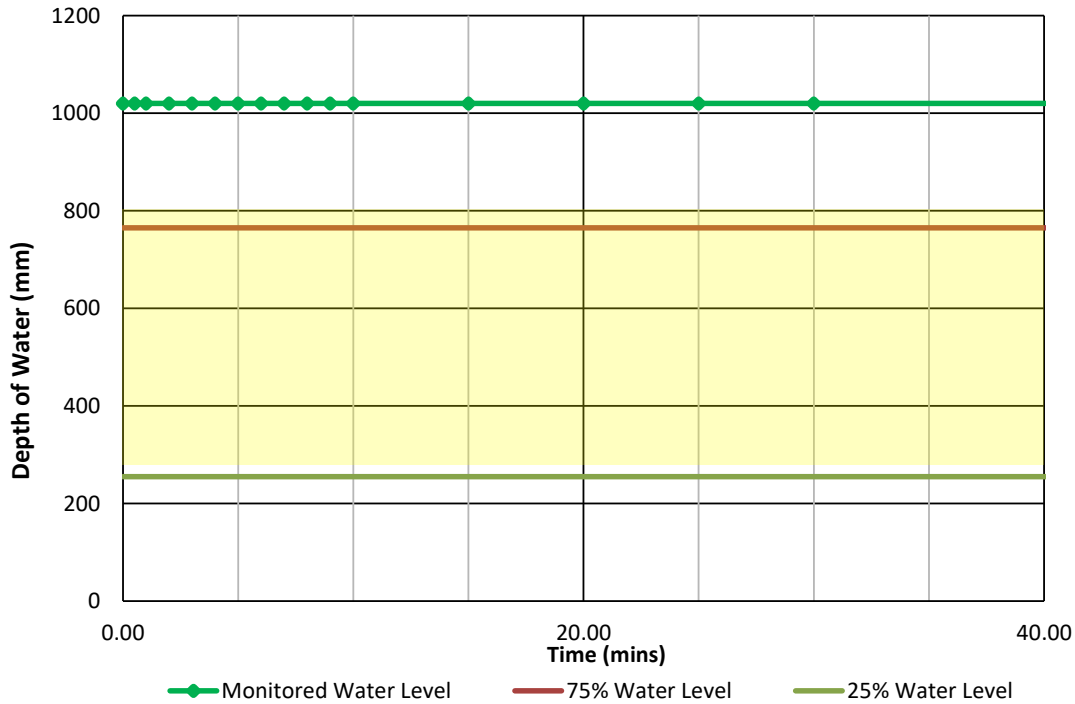


BROWNFIELD SOLUTIONS LTD

GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1070
Water Level 2 (mm)	1070
Time to Drain from Level 1 to Level 2 (mins)	180
Volume of water discharged (m ³)	0
Discharge Area (m ²)	6.978
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	765
Water Level at 25% effective depth (mm)	255

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



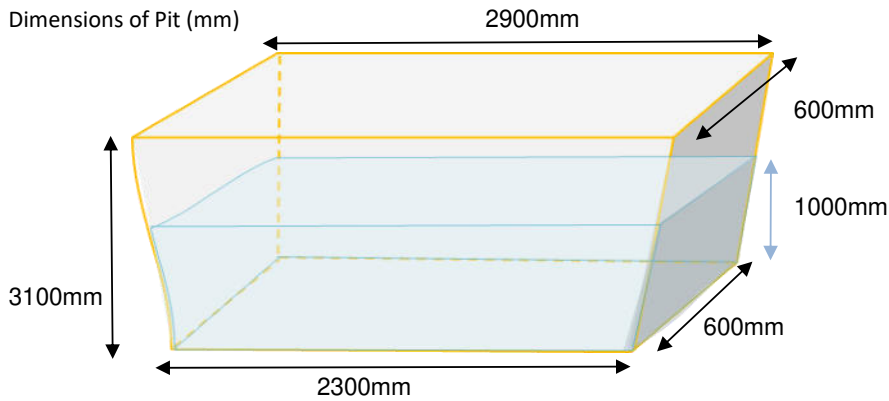
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA07
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
17/06/2020

Logged By:
PG

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	3100mm		
Depth of Water (start)	1000mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.560
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.560

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	2100	1000	120.0	2100	1000
0.5	2100	1000	150.0	2100	1000
1.0	2100	1000	180.0	2100	1000
1.5	2100	1000	End of Test	End of Test	End of Test
2.0	2100	1000			
3.0	2100	1000			
4.0	2100	1000			
5.0	2100	1000			
6.0	2100	1000			
7.0	2100	1000			
8.0	2100	1000			
9.0	2100	1000			
10.0	2100	1000			
15.0	2100	1000			
30.0	2100	1000			
45.0	2100	1000			
60.0	2100	1000			
90.0	2100	1000			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA07

Test 1

THE LANES, PENWORTHAM

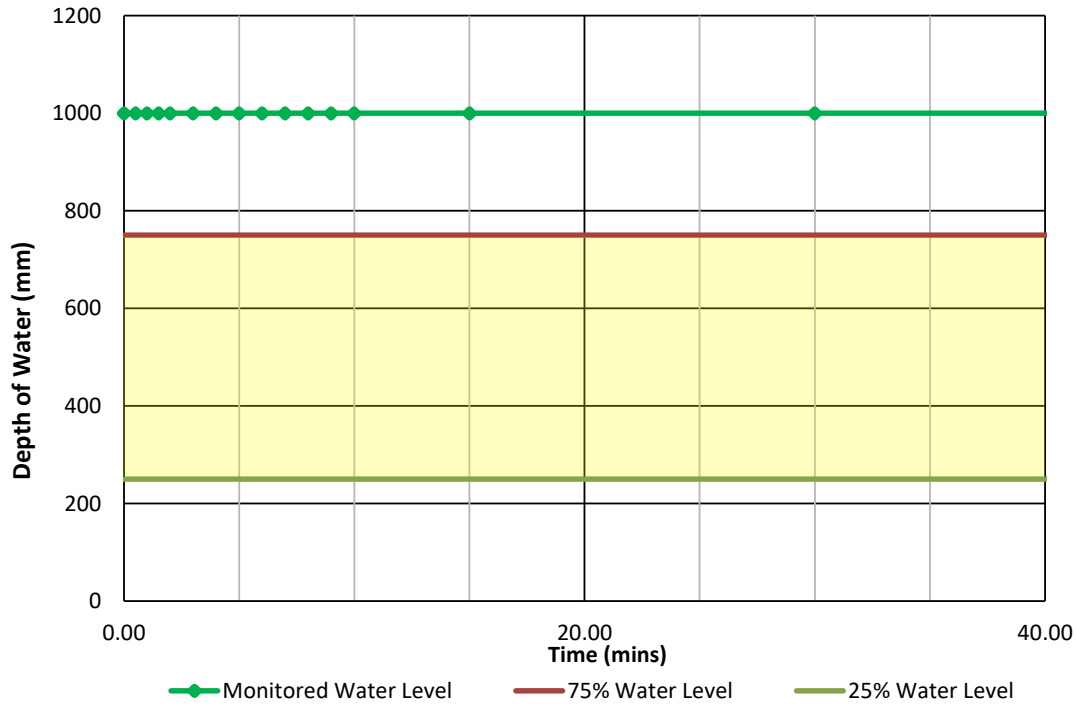
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	1000
Time to Drain from Level 1 to Level 2 (mins)	180
Volume of water discharged (m ³)	0
Discharge Area (m ²)	7.78
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	750
Water Level at 25% effective depth (mm)	250

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



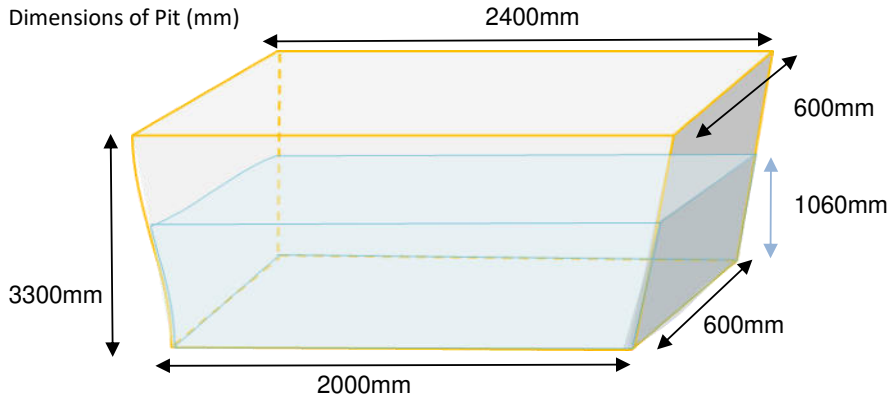
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA08A
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
23/06/2020

Logged By:
SM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	3300mm		
Depth of Water (start)	1060mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.399
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.399

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	2240	1060	120.0	2240	1060
0.5	2240	1060	150.0	2240	1060
1.0	2240	1060	180.0	2240	1060
2.0	2240	1060	End of Test	End of Test	End of Test
3.0	2240	1060			
4.0	2240	1060			
5.0	2240	1060			
6.0	2240	1060			
7.0	2240	1060			
8.0	2240	1060			
9.0	2240	1060			
10.0	2240	1060			
15.0	2240	1060			
20.0	2240	1060			
25.0	2240	1060			
30.0	2240	1060			
60.0	2240	1060			
90.0	2240	1060			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA08A

THE LANES, PENWORTHAM

Test 1

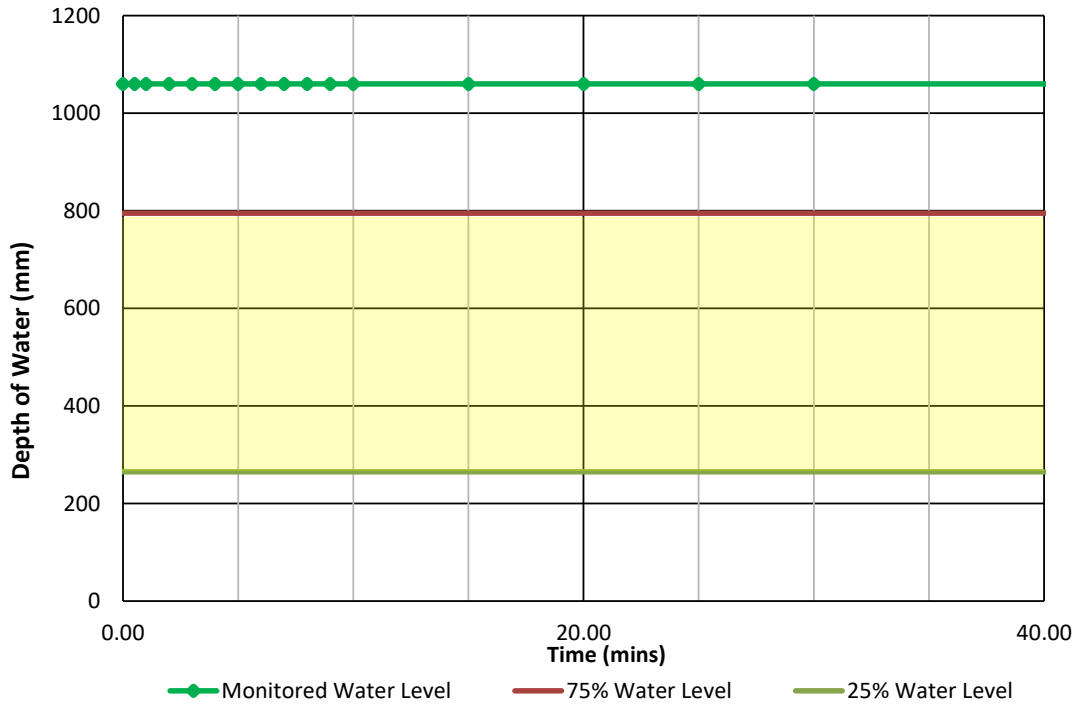
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1060
Water Level 2 (mm)	1060
Time to Drain from Level 1 to Level 2 (mins)	180
Volume of water discharged (m ³)	0
Discharge Area (m ²)	7.136
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	795
Water Level at 25% effective depth (mm)	265

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



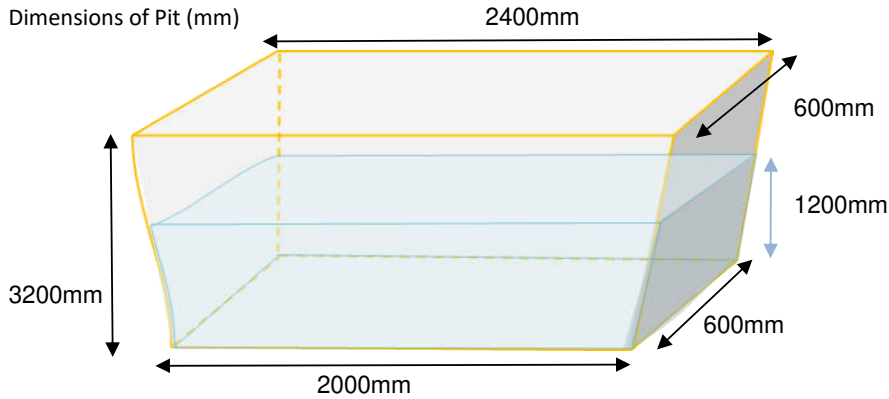
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA09
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
23/06/2020

Logged By:
SM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	3200mm		
Depth of Water (start)	1200mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.584
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.584

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	2000	1200	150.0	2000	1200
1.0	2000	1200	180.0	2000	1200
2.0	2000	1200	End of Test	End of Test	End of Test
3.0	2000	1200			
4.0	2000	1200			
5.0	2000	1200			
6.0	2000	1200			
7.0	2000	1200			
8.0	2000	1200			
9.0	2000	1200			
10.0	2000	1200			
15.0	2000	1200			
20.0	2000	1200			
25.0	2000	1200			
30.0	2000	1200			
60.0	2000	1200			
90.0	2000	1200			
120.0	2000	1200			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA09

THE LANES, PENWORTHAM

Test 1

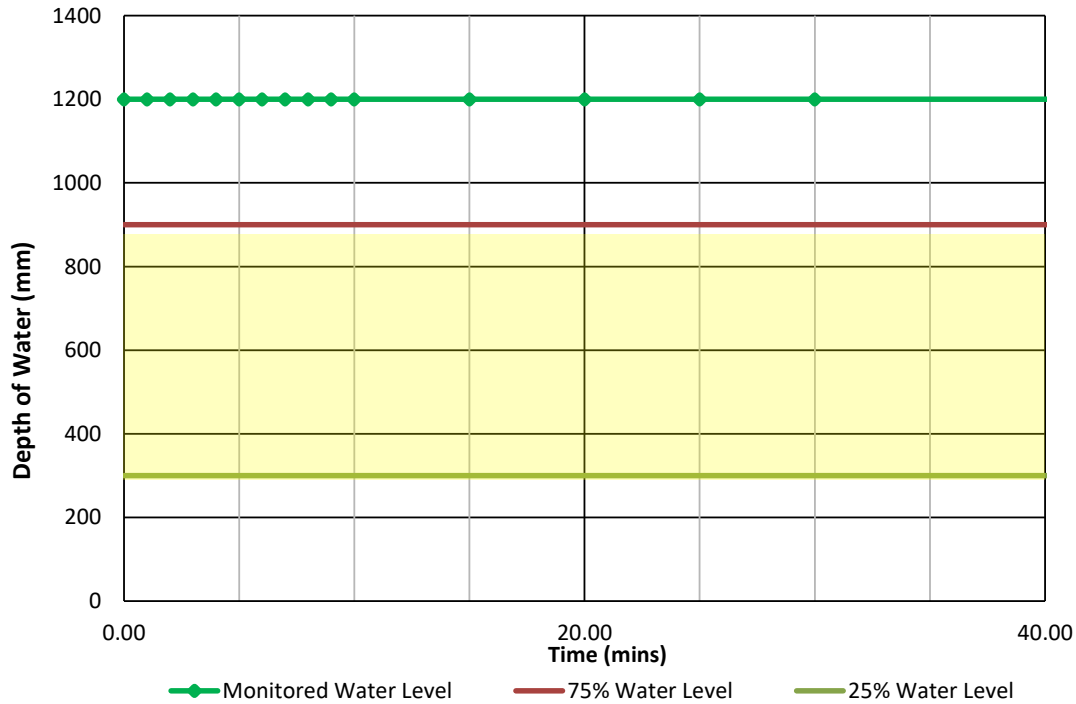
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	1000
Time to Drain from Level 1 to Level 2 (mins)	180
Volume of water discharged (m ³)	0
Discharge Area (m ²)	6.8
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	900
Water Level at 25% effective depth (mm)	300

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



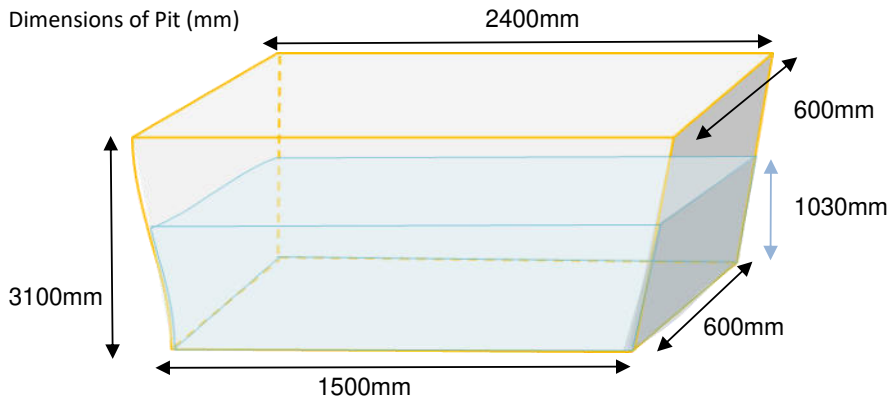
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA10
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
23/06/2020

Logged By:
SM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	3100mm		
Depth of Water (start)	1030mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.205
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.205

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	2070	1030			
1.0	2070	1030			
2.0	2070	1030			
3.0	2070	1030			
4.0	2070	1030			
5.0	2070	1030			
6.0	2070	1030			
7.0	2070	1030			
8.0	2070	1030			
9.0	2070	1030			
10.0	2070	1030			
28.0	2070	1030			
42.0	2070	1030			
70.0	2070	1030			
108.0	2070	1030			
144.0	2070	1030			
182.0	2070	1030			
End of Test	End of Test	End of Test			

Percolation Test **HOMES ENGLAND / TAYLOR WIMPEY**

SA10
Test 1

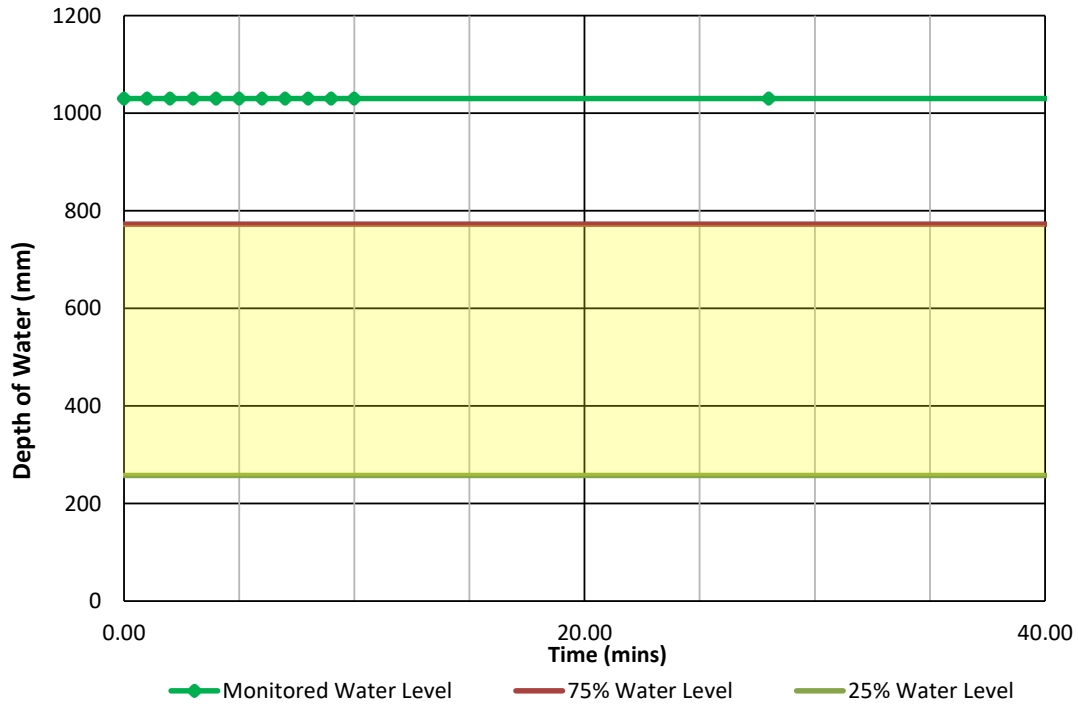
THE LANES, PENWORTHAM
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1030
Water Level 2 (mm)	1030
Time to Drain from Level 1 to Level 2 (mins)	182
Volume of water discharged (m ³)	0
Discharge Area (m ²)	6.153
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	772.5
Water Level at 25% effective depth (mm)	257.5

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test **HOMES ENGLAND / TAYLOR WIMPEY**

SA11
Test 1

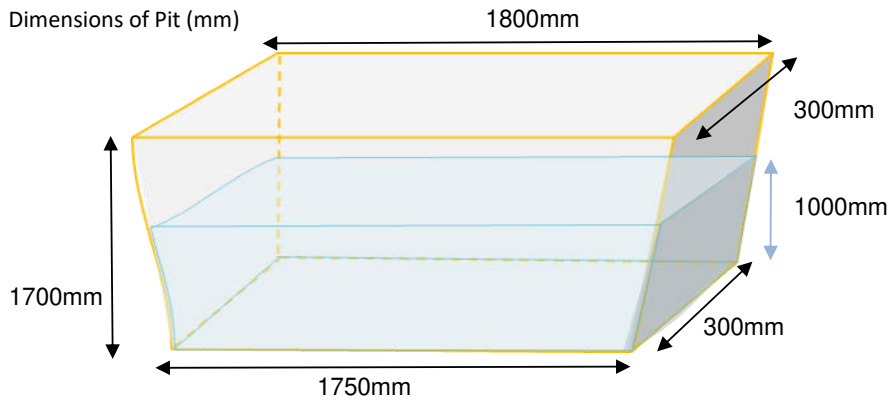
THE LANES, PENWORTHAM

C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Test Pit Construction



Date of Test:
11/06/2020

Logged By:
JM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	1700mm		
Depth of Water (start)	1000mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	0.533
Infill Volume (m ³)	N/A	Water Volume (m ³)	0.533

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	700	1000	22.5	700	1000
0.5	700	1000	25.0	700	1000
1.0	700	1000	27.5	700	1000
1.5	700	1000	30.0	700	1000
2.0	700	1000	35.0	700	1000
3.0	700	1000	40.0	700	1000
4.0	700	1000	48.0	700	1000
5.0	700	1000	52.0	700	1000
6.0	700	1000	56.0	700	1000
7.0	700	1000	65.0	700	1000
8.0	700	1000	71.0	700	1000
9.0	700	1000	78.0	700	1000
10.0	700	1000	85.0	700	1000
12.0	700	1000	93.0	700	1000
14.0	700	1000	100.0	700	1000
16.0	700	1000	110.0	700	1000
18.0	700	1000	120.0	700	1000
20.0	700	1000	130.0	700	1000

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA11

Test 1

THE LANES, PENWORTHAM

C4259

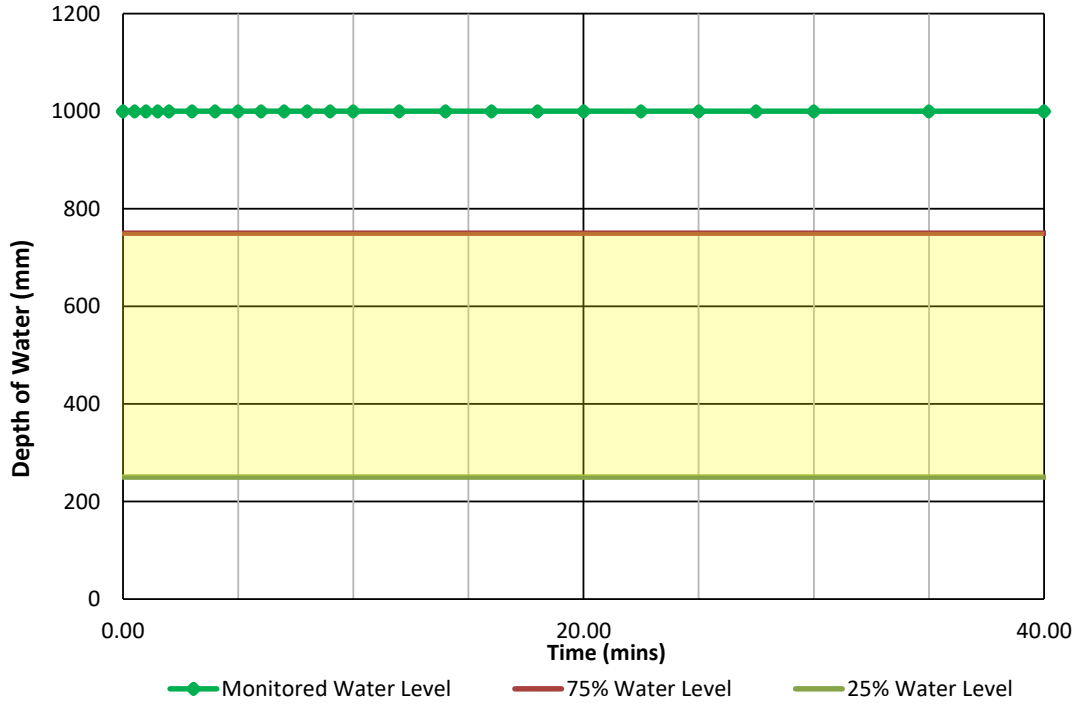


BROWNFIELD SOLUTIONS LTD

GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	1000
Time to Drain from Level 1 to Level 2 (mins)	134
Volume of water discharged (m ³)	0
Discharge Area (m ²)	4.675
Soil Infiltration Rate (m/min)	0

Soil Infiltration Rate (m/sec)	Could not be calculated
--------------------------------	-------------------------

Compliance Check

Water Level at 75% effective depth (mm)	750
Water Level at 25% effective depth (mm)	250

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY



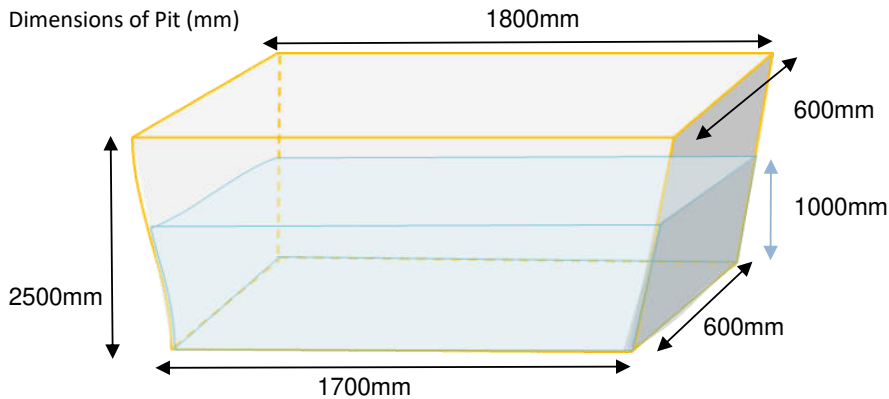
BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

SA12
Test 1

THE LANES, PENWORTHAM

C4259

Test Pit Construction



Date of Test:
25/06/2020

Logged By:
JM

Checked By:
NS

Strata Description	CLAY		
Depth of Pit	2500mm		
Depth of Water (start)	1000mm		
Pit Details	Open with no stone filling See Associated Log for Stratum Details		
Void Ratio	1	Volume of Pit (m ³)	1.050
Infill Volume (m ³)	N/A	Water Volume (m ³)	1.050

Site Recorded Data

Time (mins)	Depth to water (mm)	Depth of water (mm)	Time (mins)	Depth to water (mm)	Depth of water (mm)
0.0	1500	1000	173.0	1500	1000
0.5	1500	1000	180.0	1500	1000
1.0	1500	1000	392.0	1510	990
1.5	1500	1000	End of Test	End of Test	End of Test
2.0	1500	1000			
3.0	1500	1000			
4.0	1500	1000			
5.0	1500	1000			
6.0	1500	1000			
7.0	1500	1000			
8.0	1500	1000			
9.0	1500	1000			
10.0	1500	1000			
12.0	1500	1000			
15.0	1500	1000			
18.0	1500	1000			
21.0	1500	1000			
59.0	1500	1000			

Percolation Test

HOMES ENGLAND / TAYLOR WIMPEY

SA12

THE LANES, PENWORTHAM

Test 1

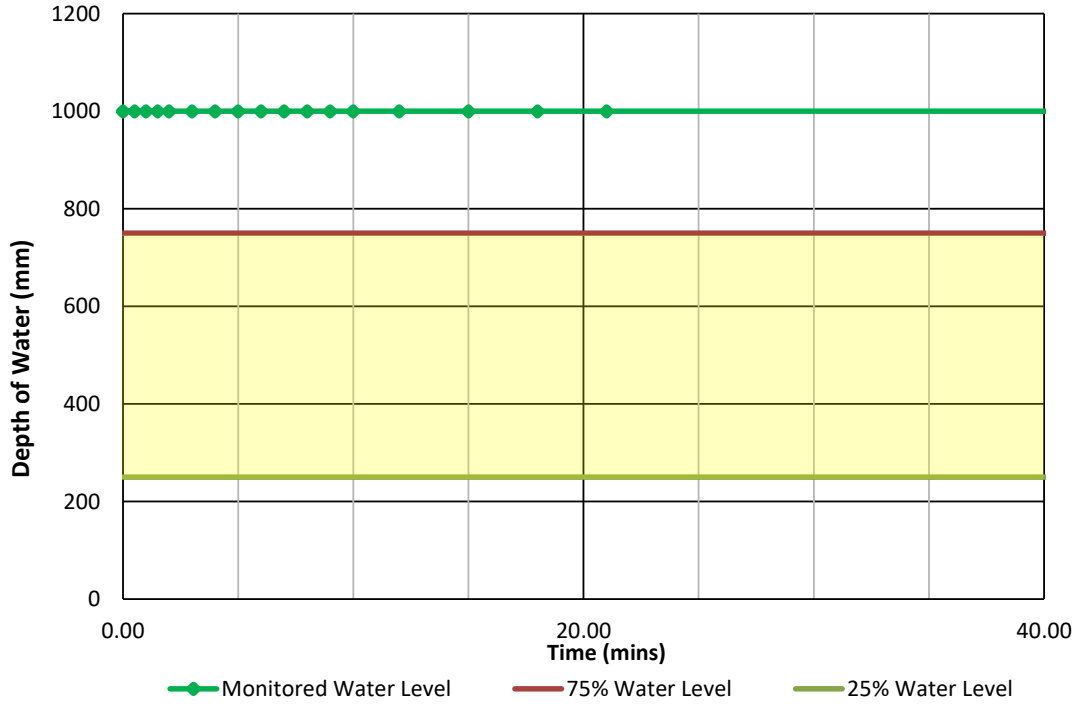
C4259



BROWNFIELD SOLUTIONS LTD
GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

Data Analysis

Graph of Depth vs Time



Soil Infiltration Rate Calculation

Water Level 1 (mm)	1000
Water Level 2 (mm)	990
Time to Drain from Level 1 to Level 2 (mins)	392
Volume of water discharged (m ³)	0.0105
Discharge Area (m ²)	5.6965
Soil Infiltration Rate (m/min)	4.70214E-06
Soil Infiltration Rate (m/sec)	7.84E-08

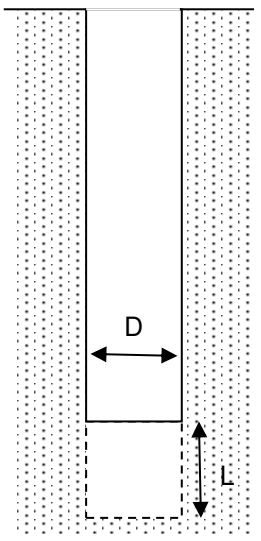
Compliance Check

Water Level at 75% effective depth (mm)	750
Water Level at 25% effective depth (mm)	250

Test not BRE 365 compliant - insufficient time to drain past 25% effective depth

WS38 Falling Head Permeability in accordance with BS 5930 & BS 22282
Test 1

Calculation of Intake Factor (F)



Area of base
A = 0.0079 m²


Diameter
D = 100 mm
0.1 m


Length
4000 mm
4 m

$$F = \frac{2 \pi L}{\ln \left[\left(\frac{L}{D} \right) + \sqrt{1 + \left(\frac{L}{D} \right)^2} \right]}$$

$$F = \frac{25.133}{4.382}$$

F =	5.735
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Calculation Sheet 3 of 3	HOMES ENGLAND / TAYLOR WIMPEY		 BROWNFIELD SOLUTIONS LTD <small>Geo-Environmental Engineering Excellence</small>							
	THE LANES, PENWORTHAM									
	C4259									
WS38 Test 1		Falling Head Permeability in accordance with BS 5930 & BS 22282		Date:	30/06/2020	By:	PG	Checked:	NS	
		At time = 0 mins (t_1) Depth to water = 0.000		t_1	0 sec					
		Depth to base of borehole = 5.00								
		Depth of Water (H_1) = 5.000								
		At time = 120 mins (t_2) Depth to water = 0.020		t_2	1920 sec					
		Depth to base of borehole = 5.00								
		Depth of Water (H_2) = 4.980								
		$k = \frac{A}{F(t_2 - t_1)} \ln \frac{H_1}{H_2}$								
		$k = \frac{0.0079}{11011.60} \ln \frac{5.000}{4.980}$								
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k = 2.86E-09 m/s										

Calculation Sheet 1 of 3	HOMES ENGLAND / TAYLOR WIMPEY				
	THE LANES, PENWORTHAM				
	C4259				
			Date:	By:	Checked:
			30/06/2020	PG	NS
WS53	Falling Head Permeability Test				
Test 1	Depth below top of casing/standpipe to:		Weather:	Overcast	
	(a) bottom of borehole:	4.03	m		
	(b) bottom of casing:		m		
	(c) top of filter material:	1.00	m		
	(d) initial groundwater level:	0.45	m		
	(e) centre of piezometer tip:		m		
	Height of casing/standpipe above surface	0.00	m		
	Diameter of casing/standpipe	100	mm		
	Length of filter	3030	mm		
Test Record:					
	Time Elapsed (minutes)	Depth to water level (m)		Time Elapsed (minutes)	Depth to water level (m)
	0	0.29		22.5	0.35
	1	0.31		25	0.35
	2	0.32		27.5	0.35
	3	0.32		30	0.35
	4	0.32		32	0.35
	5	0.33			
	6	0.33			
	7	0.33			
	8	0.33			
	9	0.33			
	10	0.34			
	12.5	0.34			
	15	0.34			
	17.5	0.34			
	20	0.35			
Remarks:	Depth to water level taken from top of standpipe.				



Date: 30/06/2020

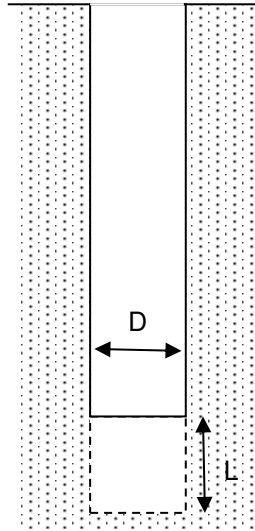
By: PG

Checked: NS

WS53
 Test 1

Falling Head Permeability in accordance with BS 5930 & BS 22282

Calculation of Intake Factor (F)



Area of base

A = 0.0079 m²

Diameter

D = 100 mm
 0.1 m


Length

3030 mm
 3.03 m

$$F = \frac{2 \pi L}{\ln \left[\left(\frac{L}{D} \right) + \sqrt{1 + \left(\frac{L}{D} \right)^2} \right]}$$

$$F = \frac{19.038}{4.105}$$

F =	4.638
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Calculation Sheet 3 of 3	HOMES ENGLAND / TAYLOR WIMPEY		 BROWNFIELD SOLUTIONS LTD <small>Geo-Environmental Engineering Excellence</small>							
	THE LANES, PENWORTHAM									
	C4259									
WS53 Test 1		Falling Head Permeability in accordance with BS 5930 & BS 22282		Date:	30/06/2020	By:	PG	Checked:	NS	
		At time = 0 mins (t ₁) Depth to water =		0.290	t ₁	0 sec				
		Depth to base of borehole =		4.03						
		Depth of Water (H ₁) =		3.740						
		At time = 120 mins (t ₂) Depth to water =		0.350	t ₂	1920 sec				
		Depth to base of borehole =		4.03						
		Depth of Water (H ₂) =		3.680						
		k =		$\frac{A}{F(t_2 - t_1)}$	ln	$\frac{H_1}{H_2}$				
		k =		$\frac{0.0079}{8905.46}$	ln	$\frac{3.740}{3.680}$				
		k =		1.43E-08 m/s						



Date: 16/06/2020

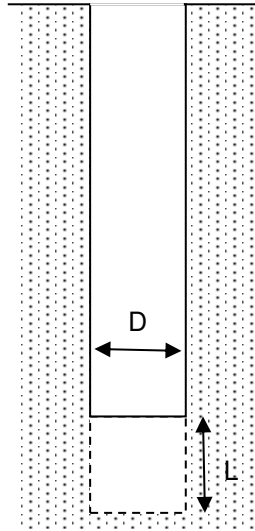
By: JM

Checked: NS

WS61
Test 1

Falling Head Permeability in accordance with BS 5930 & BS 22282

Calculation of Intake Factor (F)



Area of base

A = 0.0079 m²

Diameter

D = 100 mm
0.1 m


Length


3000 mm
3 m

$$F = \frac{2 \pi L}{\ln \left[\left(\frac{L}{D} \right) + \sqrt{1 + \left(\frac{L}{D} \right)^2} \right]}$$

$$F = \frac{18.850}{4.095}$$

F =	4.603
------------	--------------

Calculation Sheet 3 of 3	HOMES ENGLAND / TAYLOR WIMPEY		 BROWNFIELD SOLUTIONS LTD <small>Geo-Environmental Engineering Excellence</small>									
	THE LANES, PENWORTHAM											
	C4259											
WS61 Test 1		Falling Head Permeability in accordance with BS 5930 & BS 22282		Date:	16/06/2020	By:	JM	Checked:	NS			
		At time = 0 mins (t ₁) Depth to water = 2.930		t ₁	0 sec							
		Depth to base of borehole = 4.00										
		Depth of Water (H ₁) = 1.070										
		At time = 120 mins (t ₂) Depth to water = 2.930		t ₂	1920 sec							
		Depth to base of borehole = 4.00										
		Depth of Water (H ₂) = 1.070										
		$k = \frac{A}{F(t_2 - t_1)} \ln \frac{H_1}{H_2}$										
		$k = \frac{0.0079}{8838.70} \ln \frac{1.070}{1.070}$										
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k =	Could not be calculated	m/s										

Calculation Sheet 1 of 3	HOMES ENGLAND / TAYLOR WIMPEY		 BROWNFIELD SOLUTIONS LTD <small>Geotechnical Engineering & Construction</small>		
	THE LANES, PENWORTHAM				
	C4259				
			Date: 16/06/2020	By: JM	Checked: NS
WS120 Test 1	Falling Head Permeability Test				
Depth below top of casing/standpipe to:			Weather: Overcast		
(a) bottom of borehole:			4.00	m	
(b) bottom of casing:				m	
(c) top of filter material:			1.00	m	
(d) initial groundwater level:			3.60	m	
(e) centre of piezometer tip:				m	
Height of casing/standpipe above surface			0.00	m	
Diameter of casing/standpipe			100	mm	
Length of filter			3000	mm	
Test Record:					
	Time Elapsed (minutes)	Depth to water level (m)		Time Elapsed (minutes)	Depth to water level (m)
	0	2.25		14	2.26
	0.5	2.26		16	2.26
	1	2.26		18	2.26
	1.5	2.26		20	2.26
	2	2.26		22	2.26
	2.5	2.26		24	2.26
	3	2.26		26	2.26
	4	2.26		28	2.26
	5	2.26		30	2.26
	6	2.26		32	2.26
	7	2.26			
	8	2.26			
	9	2.26			
	10	2.26			
	12	2.26			
Remarks:	Depth to water level taken from top of standpipe.				



Date: 16/06/2020

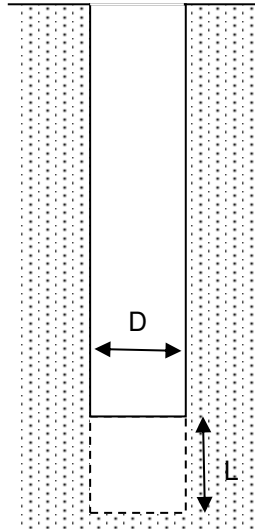
By: JM

Checked: NS

WS120
 Test 1

Falling Head Permeability in accordance with BS 5930 & BS 22282

Calculation of Intake Factor (F)



Area of base

A = 0.0079 m²

Diameter

D = 100 mm
 0.1 m


Length

3000 mm
 3 m

$$F = \frac{2 \pi L}{\ln \left[\left(\frac{L}{D} \right) + \sqrt{1 + \left(\frac{L}{D} \right)^2} \right]}$$

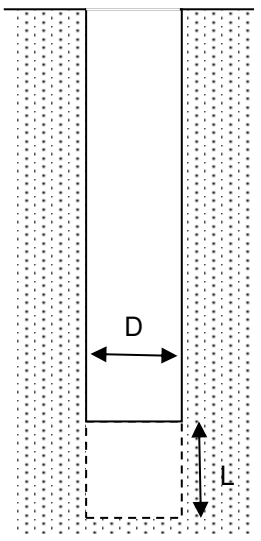
$$F = \frac{18.850}{4.095}$$

F =	4.603
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Calculation Sheet 3 of 3	HOMES ENGLAND / TAYLOR WIMPEY		 BROWNFIELD SOLUTIONS LTD <small>DESIGN • ENVIRONMENT • ENGINEERING • EXCELLENCE</small>							
	THE LANES, PENWORTHAM									
	C4259									
WS120 Test 1		Falling Head Permeability in accordance with BS 5930 & BS 22282		Date:	16/06/2020	By:	JM	Checked:	NS	
		At time = 0 mins (t ₁) Depth to water =		2.250	t ₁	0 sec				
		Depth to base of borehole =		4.00						
		Depth of Water (H ₁) =		1.750						
		At time = 120 mins (t ₂) Depth to water =		2.260	t ₂	1920 sec				
		Depth to base of borehole =		4.00						
		Depth of Water (H ₂) =		1.740						
		k =		$\frac{A}{F(t_2 - t_1)}$	ln	$\frac{H_1}{H_2}$				
		k =		$\frac{0.0079}{8838.70}$	ln	$\frac{1.750}{1.740}$				
		k =		5.09E-09 m/s						

WS132 Falling Head Permeability in accordance with BS 5930 & BS 22282
 Test 1

Calculation of Intake Factor (F)



Area of base
 A = 0.0079 m²


Diameter
 D = 100 mm
 0.1 m

Length
 3800 mm
 3.8 m

$$F = \frac{2 \pi L}{\ln \left[\left(\frac{L}{D} \right) + \sqrt{1 + \left(\frac{L}{D} \right)^2} \right]}$$

$$F = \frac{23.876}{4.331}$$

F =	5.513
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Calculation Sheet 3 of 3	HOMES ENGLAND / TAYLOR WIMPEY		 BROWNFIELD SOLUTIONS LTD <small>Geo-Environmental Engineering Excellence</small>									
	THE LANES, PENWORTHAM											
	C4259											
WS132 Test 1		Falling Head Permeability in accordance with BS 5930 & BS 22282		Date:	16/06/2020	By:	JM	Checked:	NS			
		At time = 0 mins (t ₁) Depth to water = 3.360		t ₁	0 sec							
		Depth to base of borehole = 4.80										
		Depth of Water (H ₁) = 1.440										
		At time = 120 mins (t ₂) Depth to water = 3.360		t ₂	1920 sec							
		Depth to base of borehole = 4.80										
		Depth of Water (H ₂) = 1.440										
		$k = \frac{A}{F(t_2 - t_1)} \ln \frac{H_1}{H_2}$										
		$k = \frac{0.0079}{10584.88} \ln \frac{1.440}{1.440}$										
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APPENDIX F

Plate Load Test Results

Plate Load Test

B1377: Part 9

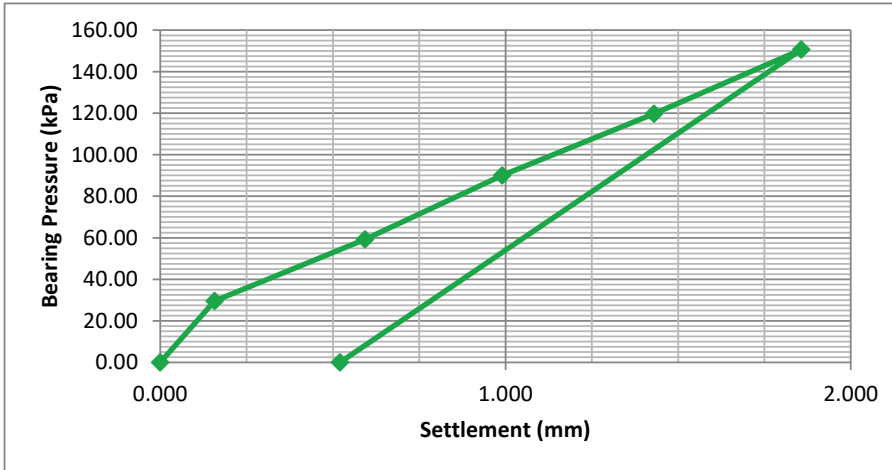
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



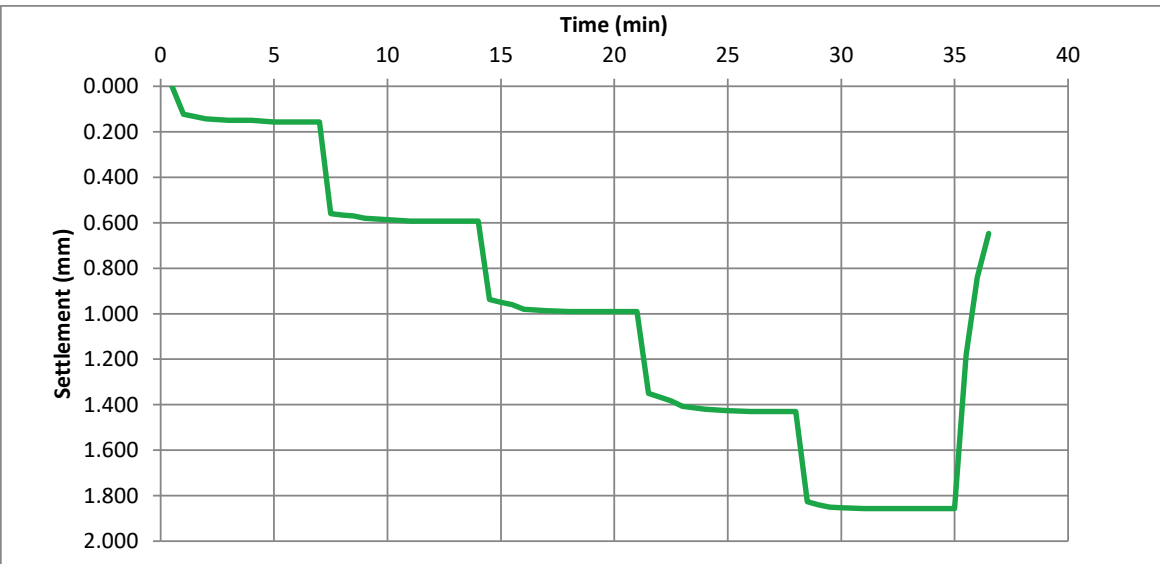
C4259
26/06/2020

Test Position:	PL01	Kentledge	Tracked
Depth (mm)	350	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	150.6	Maximum Deformation (mm)	1.857

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.157
59.24	0.593
90.10	0.990
119.72	1.430
150.58	1.857
0.00	0.520



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	108
k (Modulus of subgrade reaction KN/m ² /mm)	86.4
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	53.71
CBR Value (%)	9.6

Compiled By: JM Checked By: NS

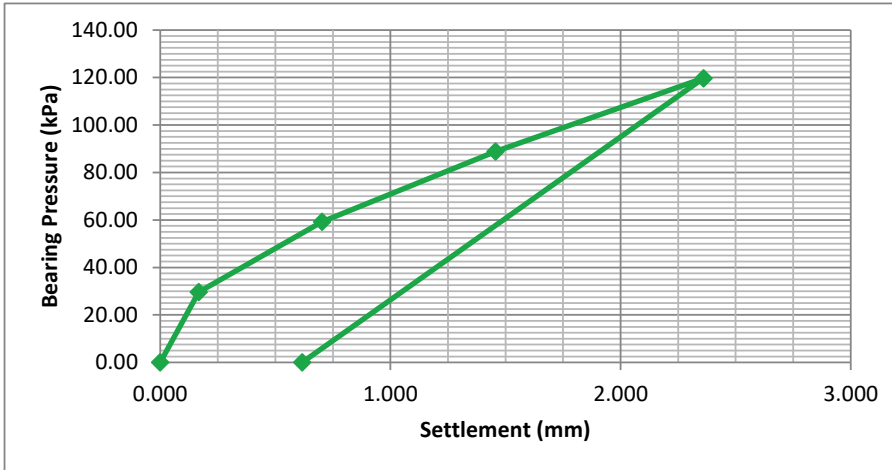
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



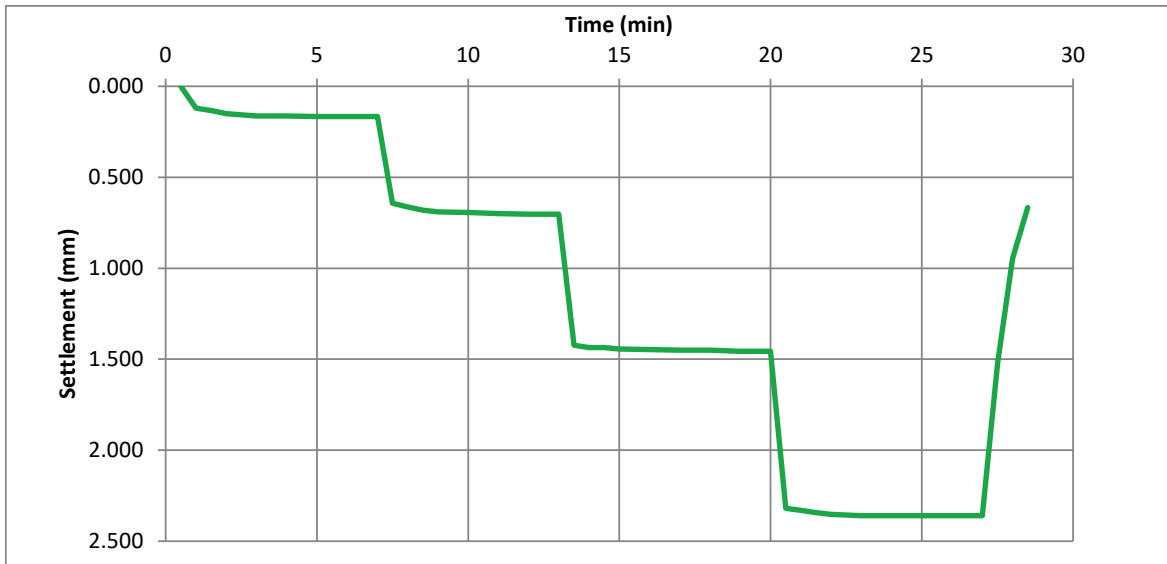
C4259
25/06/2020

Test Position:	PL02	Kentledge	Wheeled
Depth (mm)	350	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	119.7	Maximum Deformation (mm)	2.360

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.167
59.24	0.703
88.87	1.457
119.72	2.360
0.00	0.617
0.00	



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	82
k (Modulus of subgrade reaction KN/m ² /mm)	65.6
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	40.78
CBR Value (%)	6.0

Compiled By: JM Checked By: NS

Plate Load Test

B1377: Part 9

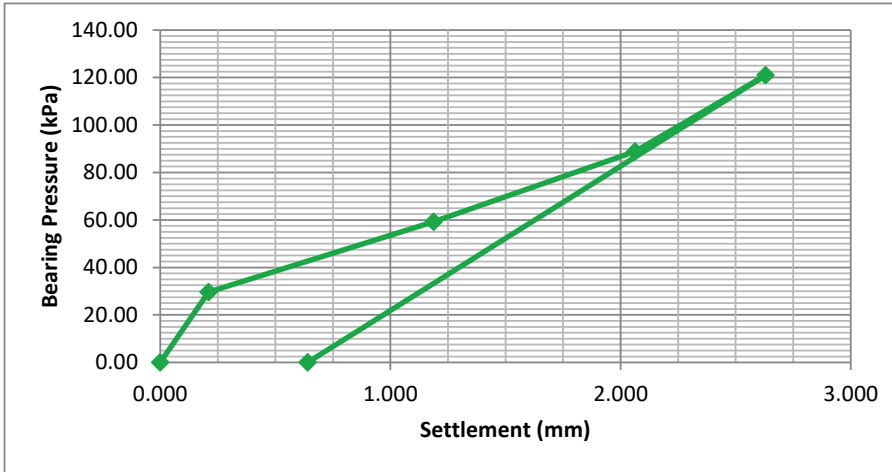
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



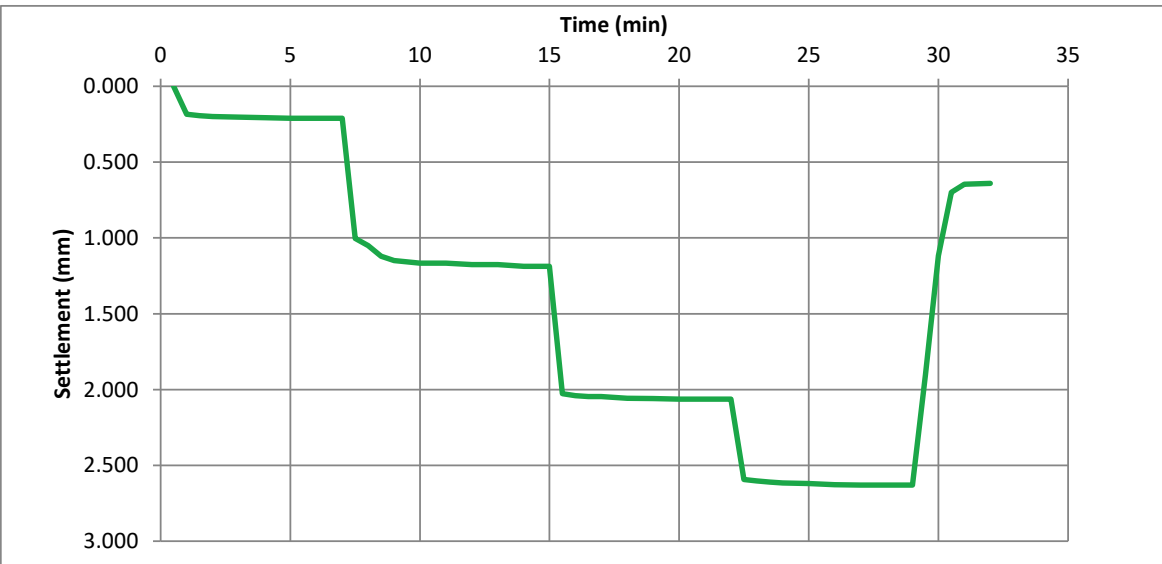
C4259
23/06/2020

Test Position:	PL03	Kentledge	Wheeled
Depth (mm)	330	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	121.0	Maximum Deformation (mm)	2.630

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.210
59.24	1.187
88.87	2.063
120.96	2.630
0.00	0.640



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	62
k (Modulus of subgrade reaction KN/m ² /mm)	49.6
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	30.84
CBR Value (%)	3.7

Compiled By: JM

Checked By: NS

Plate Load Test

B1377: Part 9

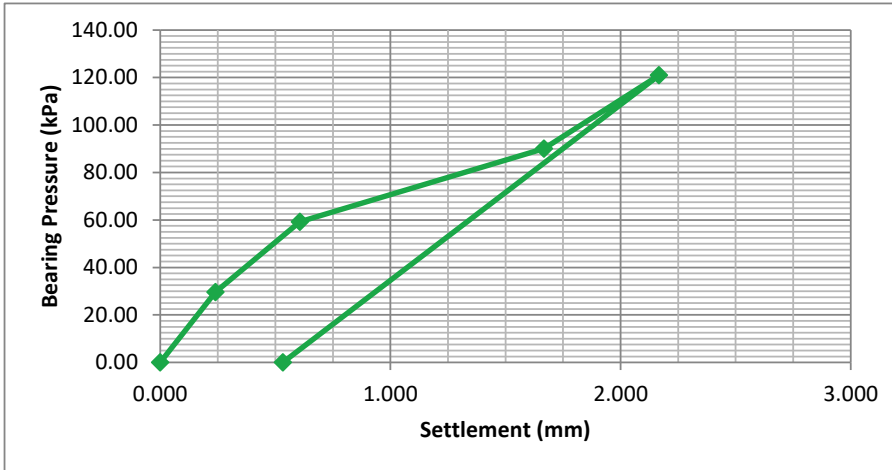
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



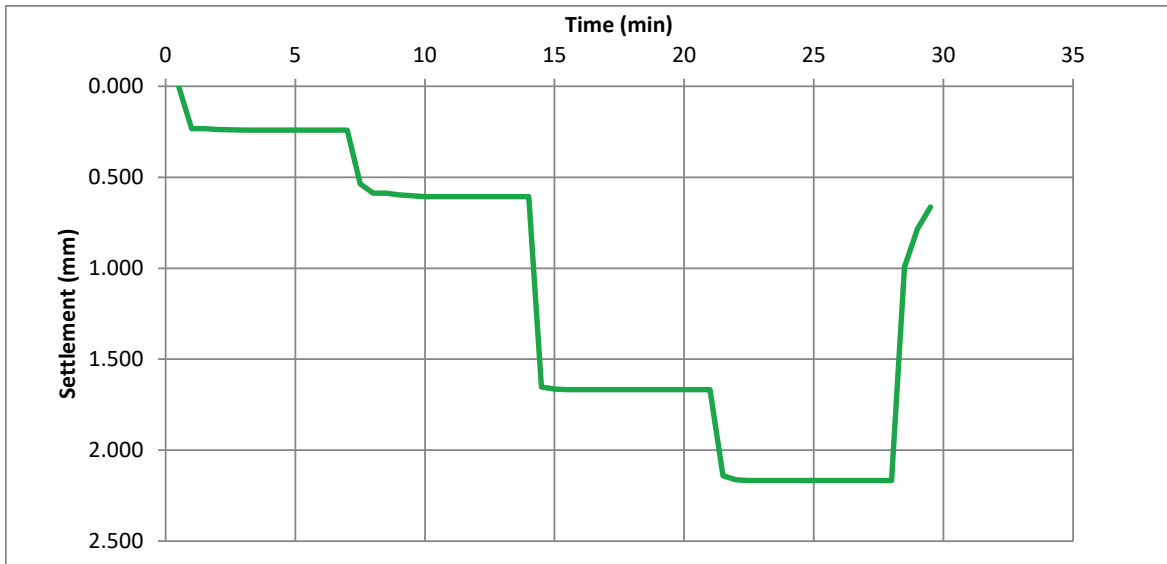
C4259
26/06/2020

Test Position:	PL04	Kentledge	Tracked
Depth (mm)	400	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	121.0	Maximum Deformation (mm)	2.167

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.240
59.24	0.607
90.10	1.667
120.96	2.167
0.00	0.533



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	78
k (Modulus of subgrade reaction KN/m ² /mm)	62.4
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	38.79
CBR Value (%)	5.5

Compiled By: JM

Checked By: NS

Plate Load Test

B1377: Part 9

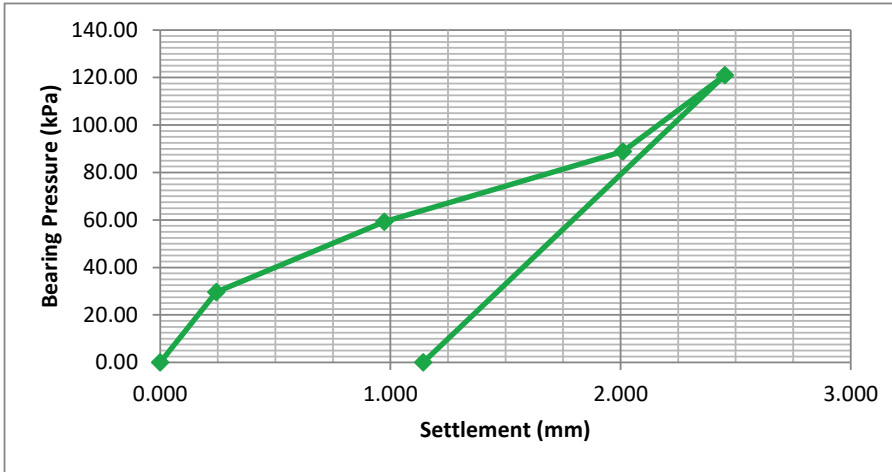
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



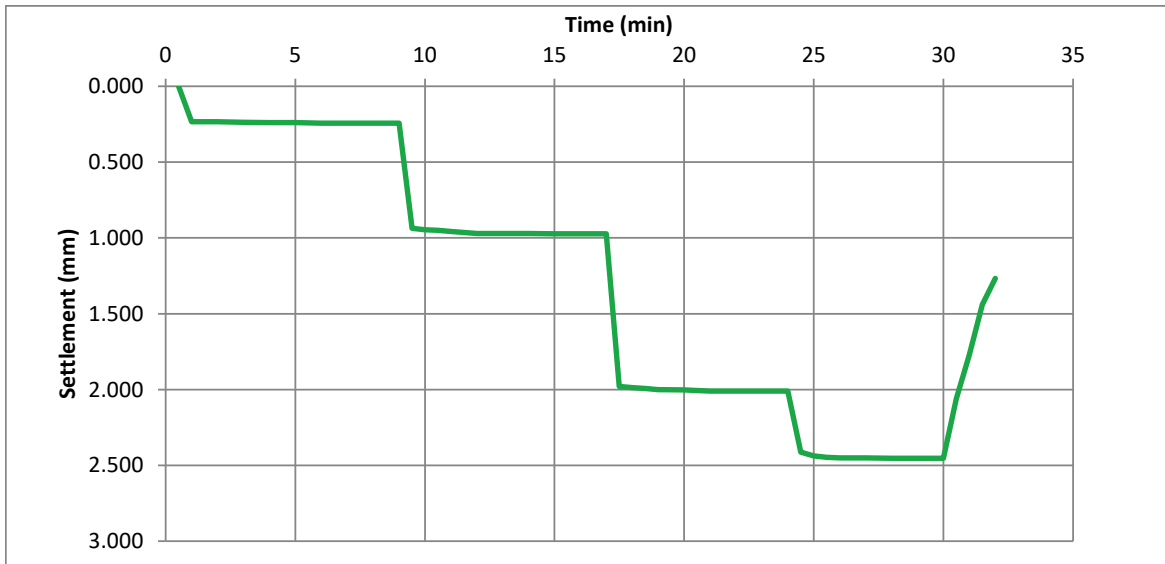
C4259
15/06/2020

Test Position:	PL05	Kentledge	Tracked
Depth (mm)	400	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	121.0	Maximum Deformation (mm)	2.453

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.243
59.24	0.973
88.87	2.010
120.96	2.453
0.00	1.143



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	67
k (Modulus of subgrade reaction KN/m ² /mm)	53.6
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	33.32
CBR Value (%)	4.2

Compiled By: JM Checked By: NS

Plate Load Test

B1377: Part 9

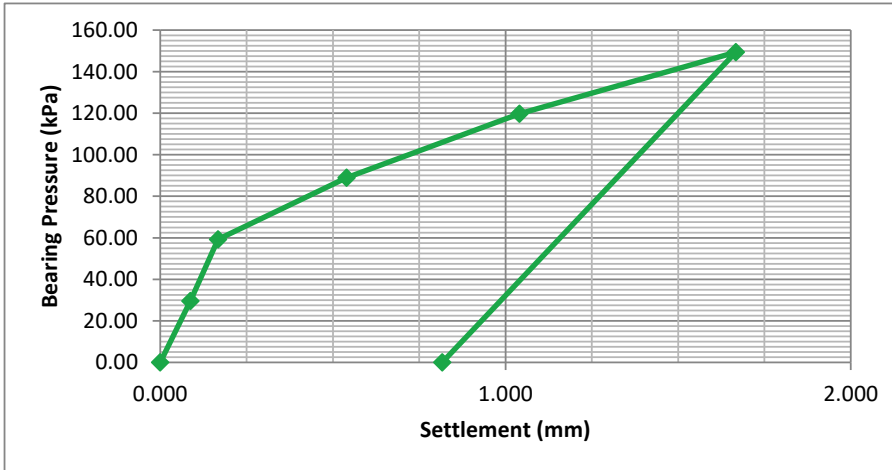
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



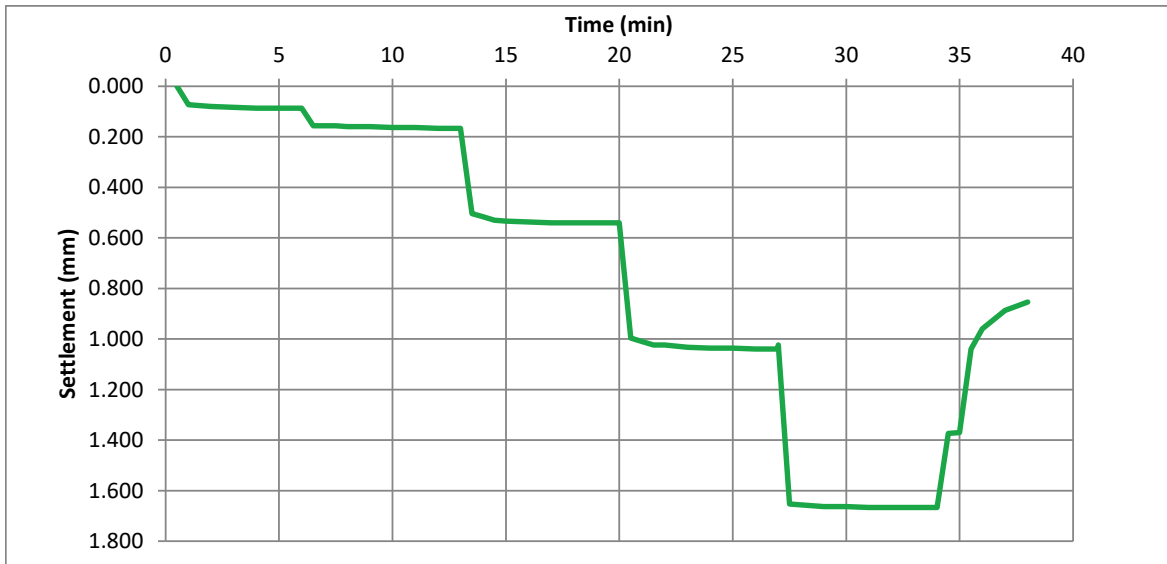
C4259
15/06/2020

Test Position:	PL06	Kentledge	Tracked
Depth (mm)	350	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	149.3	Maximum Deformation (mm)	1.667

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.087
59.24	0.167
88.87	0.540
119.72	1.040
149.35	1.667
0.00	0.817



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	130
k (Modulus of subgrade reaction KN/m ² /mm)	104
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	64.66
CBR Value (%)	13.2

Compiled By: JM Checked By: NS

Plate Load Test

B1377: Part 9

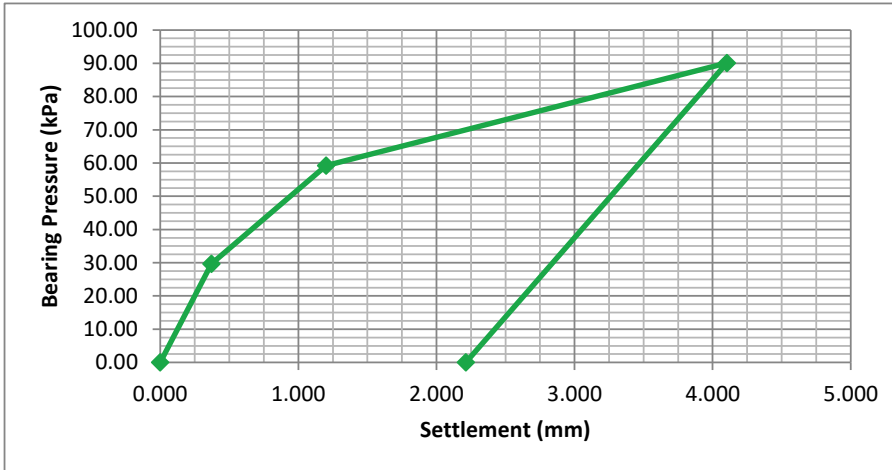
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



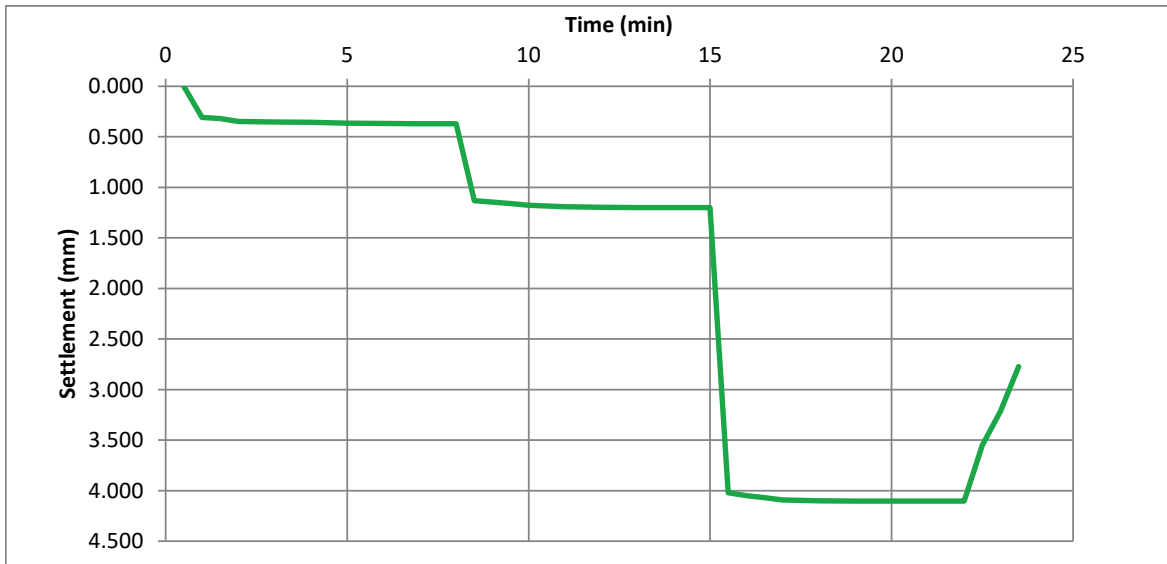
C4259
12/06/2020

Test Position:	PL07	Kentledge	Tracked
Depth (mm)	600	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	90.1	Maximum Deformation (mm)	4.103

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.370
59.24	1.200
90.10	4.103
0.00	2.213



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	58
k (Modulus of subgrade reaction KN/m ² /mm)	46.4
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	28.85
CBR Value (%)	3.3

Compiled By: JM

Checked By:

Plate Load Test

B1377: Part 9

**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**

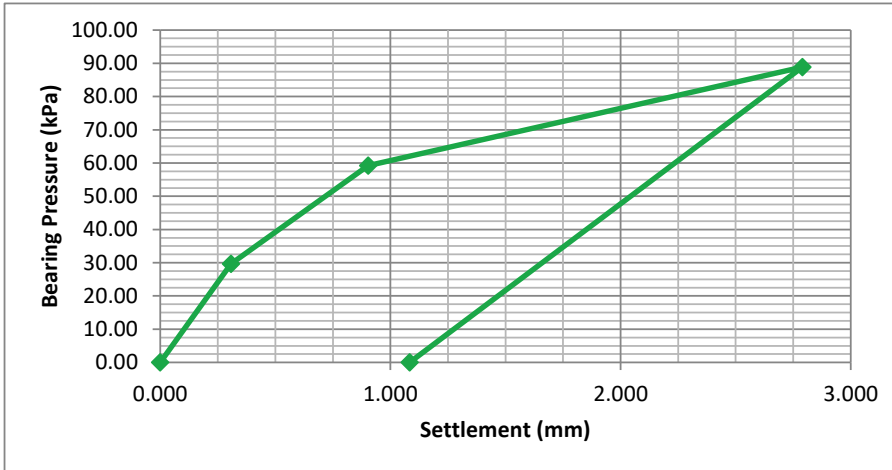


C4259

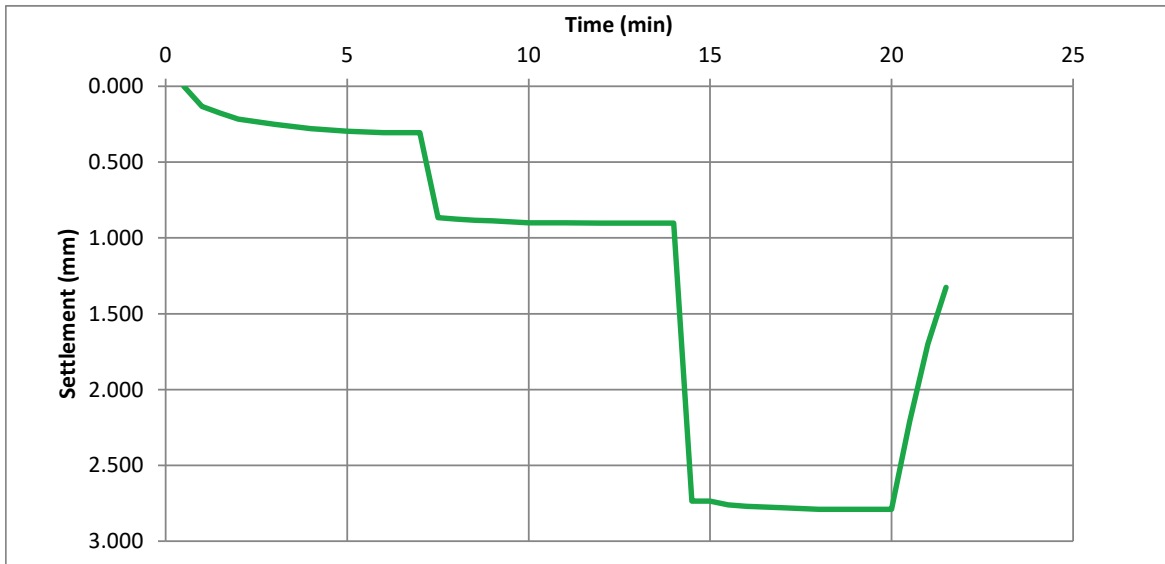
08/06/2020

Test Position:	PL08	Kentledge	Tracked
Depth (mm)	600	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	88.9	Maximum Deformation (mm)	2.790

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.307
59.24	0.903
88.87	2.790
0.00	1.083



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	65
k (Modulus of subgrade reaction KN/m ² /mm)	52
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	32.33
CBR Value (%)	4.0

Compiled By: JM

Checked By: NS

Plate Load Test

B1377: Part 9

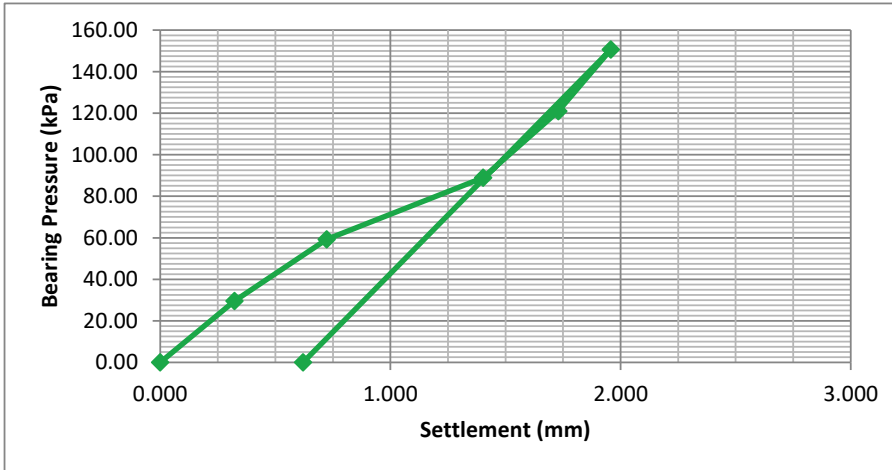
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



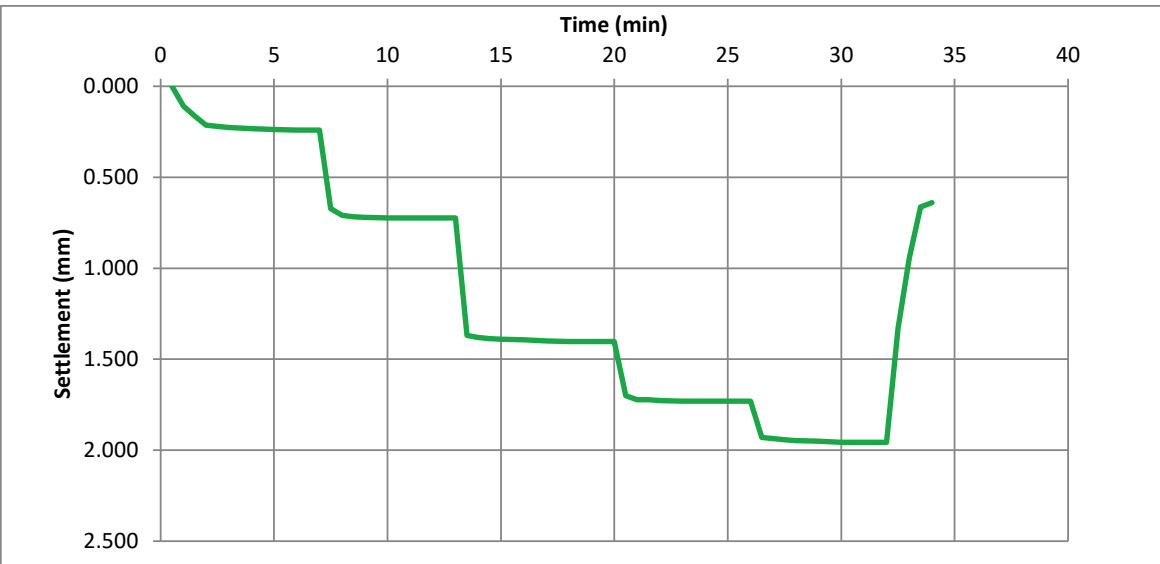
C4259
23/06/2020

Test Position:	PL09	Kentledge	Wheeled
Depth (mm)	300	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	150.6	Maximum Deformation (mm)	1.957

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.323
59.24	0.723
88.87	1.403
120.96	1.730
150.58	1.957
0.00	0.620



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	83
k (Modulus of subgrade reaction KN/m ² /mm)	66.4
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	41.28
CBR Value (%)	6.1

Compiled By: JM

Checked By: NS

Plate Load Test

B1377: Part 9

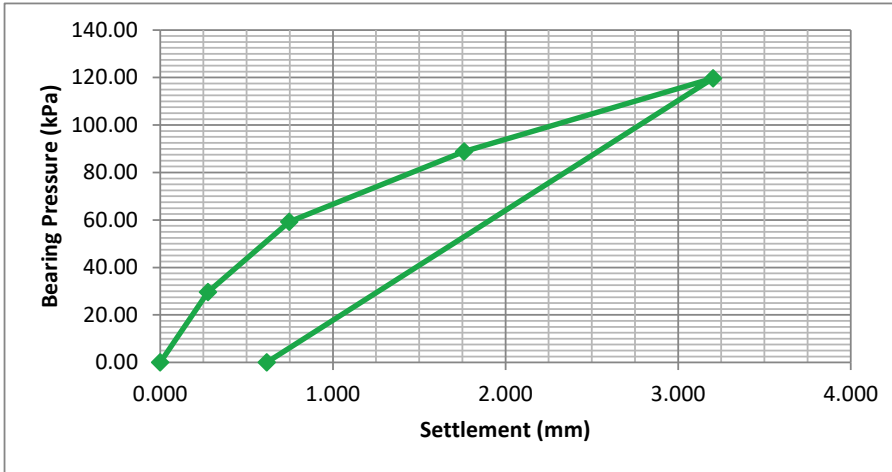
**HOMES ENGLAND / TAYLOR WIMPEY
THE LANES, PENWORTHAM**



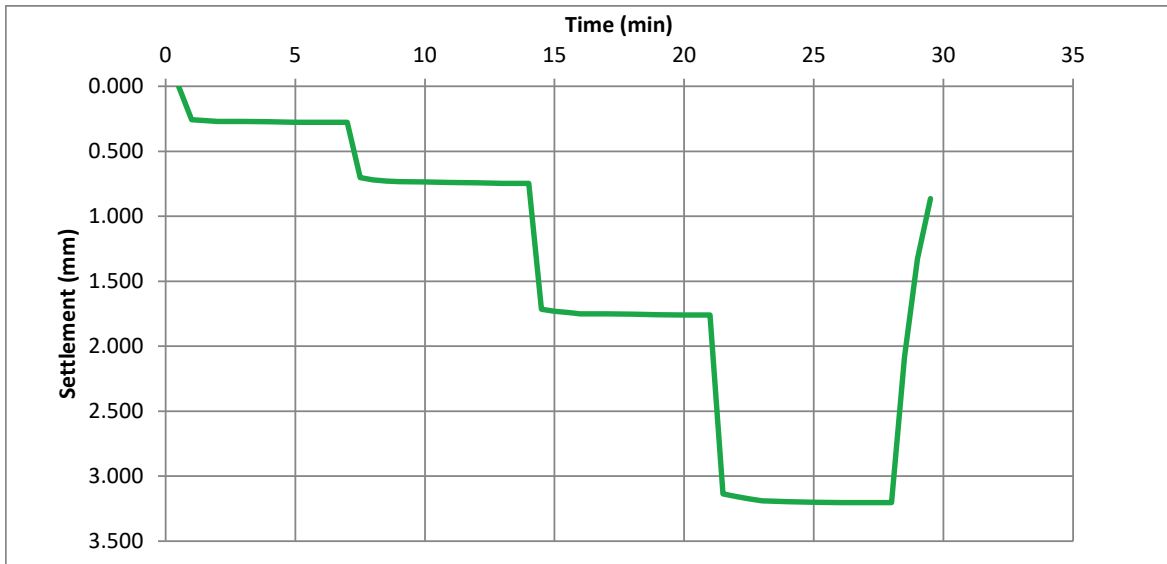
C4259
25/06/2020

Test Position:	PL10	Kentledge	Wheeled
Depth (mm)	500	Moisture Content (%)	N/A
Plate Ø (mm)	450	Plate Area (m²)	0.159
Max Applied Force (kPa)	119.7	Maximum Deformation (mm)	3.203

Formation Description: CLAY



Bearing Pressure (kPa)	Plate Settlement (mm)
0.00	0.000
29.62	0.277
59.24	0.747
88.87	1.760
119.72	3.203
0.00	0.617



Settlement required for CBR Value 1.25mm	
Load at 1.25mm settlement (kPa)	75
k (Modulus of subgrade reaction KN/m ² /mm)	60
k ₇₆₂ (Modulus of subgrade reaction KN/m ² /mm)	37.30
CBR Value (%)	5.1

Compiled By: JM

Checked By: NS

APPENDIX G

Monitoring Results

Ground Gas Monitoring Results



CLIENT:	Date	Operator	Analysers	Weather Observations			Temp (°C)	Pressure Trend	Notes
HOMES ENGLAND / TAYLOR WIMPEY	01/07/2020	PG	GFM436	Light rain	Light breeze	Cool	12	Rising	
JOB NO. C4259	16/07/2020	PG	GA5000	Light rain	Light breeze	Cool	12	Rising	
SITE: THE LANES, PENWORTHAM	30/07/2020	MS / GP	GA5000	Light rain	No wind	Warm	14	Rising	
	12/08/2020	PG	GA5000	Sunny	No wind	Hot	21	Rising	
	26/08/2020	PG	GA5000	Intermittent cloud	Light breeze	Warm	15	Rising	
	08/09/2020	PG	GFM436	Overcast	No wind	Warm	13	Falling	

Notes: mb = millibars; CH₄ = methane; LEL = lower explosive limit = 5%v/v; CO₂ = carbon dioxide; O₂ = oxygen; CO=carbon monoxide; H₂S = hydrogen sulphide; TVOC= Total volatile organic compounds; PPM = parts per million. Where the flow is less than the limit of detection of the instrument, the detection limit is reported (Highlighted in green). Gas Screening Values (GSVs) are rounded to 3 decimal places. Calibration Records for analysers used available on request.

Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes	
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)						
Summary Statistics																								
Max. values:				1022	156.0	117.1	15.3	8.0	2.2	160.0	44.0	17.3	16.8	21.6	21.7	20.0	0.0	0.0	9.9	11.7	0.091	2.096		
Min. values:				999	-53.0	-17.2	-17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1	0.0	0.0	0.0	0.0	0.0	0.7	0.000	0.000	
Worst-case GSVs based on maximum recorded steady flow and maximum individual peak concentrations:																					1.224	2.647		

01/07/2020	AM	Ambient	X.00 - X.00	1000				0.0	0.0	0.0	0.0	0.0	0.0	21.0	21.7	0.0	0.0								
	Area 1	WS01	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.4	16.2	18.7	0.0	0.0	NA	2.64	3.98	0.000	0.000		
		WS03	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.4	16.0	19.7	0.0	0.0	NA	2.87	3.97	0.000	0.000		
		WS05	1.00 - 4.00		0.0	0.0	0.0	NA	0.0	NA	0.0	0.0	NA	0.9	NA	19.8	0.0	0.0	NA	2.31	3.92	-	-	Well head flooded, no peak	
		WS09	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.5	17.9	20.0	10.0	0.0	NA	1.45	3.97	0.000	0.000		
		WS10	1.00 - 4.00		1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.6	18.5	20.0	0.0	0.0	NA	1.02	2.30	0.000	0.000		
		WS12	0.5 - 4.00		-3.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.5	18.2	20.3	0.0	0.0	NA	3.72	3.84	0.000	0.000		
		WS15	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	16.2	19.5	0.0	0.0	NA	1.53	3.93	0.000	0.000		
		BH01	5.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	18.7	20.5	0.0	0.0	NA	0.95	8.95	0.000	0.000		
	Area 2	WS16	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.7	14.8	19.2	0.0	0.0	NA	0.67	3.61	0.000	0.000		
		WS19	0.50 - 2.00		0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.9	0.2	18.3	20.4	0.0	0.0	NA	0.37	2.05	0.000	0.018		
		WS22	2.00 - 4.00		0.0	0.0	0.0	NA	0.0	NA	0.0	0.0	NA	0.8	NA	19.8	0.0	0.0	NA	1.02	3.96	-	-	Well head flooded, no peak	
		WS24	1.00 - 4.00		2.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	2.0	0.4	18.3	20.3	0.0	0.0	NA	1.56	3.92	0.000	0.006		
		WS26	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.5	16.2	19.5	0.0	0.0	NA	0.57	4.07	0.000	0.000		
		WS27	2.00 - 4.00		3.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.4	13.6	19.8	0.0	0.0	NA	2.87	4.00	0.000	0.000		
		WS28	1.40 - 3.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.5	18.4	19.2	0.0	0.0	NA	0.56	3.01	0.000	0.000		
		WS29	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		WS31	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		WS33	1.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		BH16	3.00 - 10.00		1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	18.7	20.3	0.0	0.0	NA	1.48	9.51	0.000	0.001		
	Area 4	WS34	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	17.1	20.4	0.0	0.0	NA	GL	3.74	0.000	0.000		
		WS35	0.30 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.81	-	-	-	Well flooded immediate recharge after bailing
		WS36	1.00 - 4.00		2.0	22.1	0.4	0.0	0.0	0.0	0.0	0.0	1.6	0.3	19.1	20.3	0.0	0.0	NA	1.11	3.99	0.000	0.006		
		WS38	3.00 - 4.00		0.0	0.0	0.0	NA	0.0	NA	0.0	0.0	NA	0.2	NA	20.4	0.0	0.0	NA	GL	3.97	-	-	-	
		WS40	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.91	-	-	-	Well flooded immediate recharge after bailing
		WS44	2.00 - 4.00		5.0	66.9	0.7	0.0	0.0	0.0	0.0	0.0	2.3	2.0	16.8	18.4	0.0	0.0	NA	0.56	3.41	0.000	0.016		
		WS46	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.7	11.3	9.8	0.0	0.0	NA	3.07	4.02	0.000	0.000		
	Area 5	WS48	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.9	16.3	19.9	0.0	0.0	NA	2.81	4.04	0.000	0.000		
		WS50	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.3	17.8	20.5	0.0	0.0	NA	3.45	4.04	0.000	0.000		
		WS52	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	6.0	15.1	20.0	0.0	0.0	NA	1.89	4.94	0.000	0.000		
		BH08	3.00 - 10.00		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.4	15.2	20.1	0.0	0.0	NA	3.45	9.77	0.000	0.000		
02/07/2020	Area 6	WS53	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	20.0	20.8	0.0	0.0	NA	0.37	4.02	0.000	0.000		
		WS55	2.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2	19.8	20.1	0.0	0.0	NA	0.40	4.00	0.000	0.000		
	Area 7	WS54	1.00 - 3.00		100.0	31.8	5.7	0.0	0.0	0.0	0.0	0.0	1.0	0.3	20.0	20.8	0.0	0.0	NA	0.93	4.00	0.000	0.057		
		WS56	1.00 - 4.00		0.0	0.0	0.0	NA	0.0	NA	0.0	0.0	NA	0.9	NA	19.7	0.0	0.0	NA	0.84	4.03	-	-	Well head flooded, no peak	
	Area 8	WS61	1.00 - 3.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Site could not be found due to high grass	
		WS62	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.9	15.4	19.3	0.0	0.0	NA	2.76	3.81	0.000	0.000		
		WS65	1.50 - 4.00		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.4	17.7	19.9	0.0	0.0	NA	1.84	4.00	0.000	0.000		
		WS67	1.50 - 4.00		0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.8	16.4	19.8	0.0	0.0	NA	3.22	3.39	0.000	0.000		
		WS69	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.8	16.9	19.6	0.0	0.0	NA	1.56	3.36	0.000	0.000		
		BH09	5.00 - 10.00		0.0	0.4	0.0	NA	0.0	NA	0.0	0.0	NA	0.0	NA	20.1	0.0	0.0	NA	2.47	7.44	-	-	Well head flooded, no peak	

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)					
03/07/2020	Area 9	WS70	0.50 - 2.00		0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.1	18.6	20.3	0.0	0.0	NA	0.25	1.53	0.000	0.000		
		WS71	1.00 - 4.00		0.0	0.0	0.0	0.0	NA	0.0	NA	0.1	NA	20.7	0.0	0.0	NA	0.29	3.98	-	-	Well head flooded, no peak	
		WS72	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.8	10.9	19.8	0.0	0.0	NA	1.39	3.99	0.000	0.000		
		BH10	3.00 - 10.00		0.0	0.0	0.0	0.0	NA	0.0	NA	0.1	NA	20.0	0.0	0.0	NA	0.99	7.19	-	-	Well head flooded, no peak	
	Area 10	WS74	1.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.8	15.4	19.5	0.0	0.0	NA	3.10	3.92	0.000	0.000		
		WS77	1.00 - 4.00		4.0	78.2	0.7	0.0	0.0	0.0	4.3	0.9	14.1	19.2	0.0	0.0	NA	0.98	3.97	0.000	0.030		
		WS75	1.50 - 4.00		1.0	0.3	0.3	0.0	0.0	0.0	1.7	0.2	19.6	20.4	0.0	0.0	NA	0.30	2.45	0.000	0.005		
	Area 11	WS81	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.4	17.1	18.2	0.0	0.0	NA	3.17	4.03	0.000	0.000		
		WS84	0.50 - 4.00		1.0	0.3	0.1	0.0	0.0	0.0	3.5	0.9	16.5	19.8	0.0	0.0	NA	2.98	4.06	0.000	0.004		
		WS85	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.3	15.1	20.5	0.0	0.0	NA	3.09	4.00	0.000	0.000		
		WS87	1.00 - 4.00		0.0	0.1	0.0	0.0	0.0	0.0	2.0	0.6	17.9	20.0	10.0	0.0	NA	0.55	3.20	0.000	0.000		
		WS89	1.50 - 4.00		0.0	0.1	0.0	0.0	0.0	0.0	2.7	0.5	18.8	20.3	0.0	0.0	NA	1.90	4.00	0.000	0.000		
		WS91	1.00 - 4.00		2.0	1.2	0.1	NA	0.0	NA	NA	0.3	NA	20.5	0.0	0.0	NA	0.71	3.90	-	-	Well head flooded, no peak	
		WS93	1.00 - 4.00		-2.0	0.0	-0.3	NA	0.0	NA	0.0	3.0	NA	16.2	0.0	0.0	NA	1.21	3.48	-	-	Well head flooded, no peak	
		WS96	0.50 - 2.00		63.0	9.9	1.4	0.0	0.0	0.0	3.2	0.8	16.7	19.5	0.0	0.0	NA	0.51	1.53	0.000	0.011		
		WS97	1.00 - 4.00		2.0	3.4	0.3	0.0	0.0	0.0	0.9	0.2	19.9	20.9	0.0	0.0	NA	0.55	3.20	0.000	0.003		
	Area 12	WS99	1.00 - 4.00		64.0	8.9	0.3	0.0	0.0	0.0	1.4	0.4	18.5	20.3	0.0	0.0	NA	0.75	3.94	0.000	0.004		
		BH11	3.00 - 10.00		3.2	4.0	2.5	0.0	0.0	0.0	1.8	0.2	16.3	20.2	0.0	0.0	NA	2.07	8.00	0.000	0.045		
	Area 13	WS101	0.50 - 4.00		2.0	0.2	0.2	NA	0.0	NA	0.0	1.0	NA	18.3	0.0	0.0	NA	0.50	3.70	-	-	Well head flooded, no peak	
		WS103	2.00 - 4.00		0.0	0.2	0.2	0.0	0.0	0.0	1.2	0.6	17.8	20.0	0.0	0.0	NA	2.52	3.95	0.000	0.002		
		WS104	0.50 - 4.00		0.0	0.1	0.1	0.0	0.0	0.0	3.4	0.3	14.3	20.3	0.0	0.0	NA	1.47	3.07	0.000	0.003		
		WS106	1.00 - 4.00		-1.0	0.1	0.1	0.0	0.0	0.0	3.1	1.2	15.8	19.9	0.0	0.0	NA	1.87	4.00	0.000	0.003		
		WS109	1.00 - 4.00		1.0	0.4	0.4	0.0	0.0	0.0	3.1	1.2	16.6	19.2	0.0	0.0	NA	2.97	4.0	0.000	0.066		
		WS110	0.50 - 4.00		-9.0	-0.1	0.0	0.0	0.0	0.0	4.6	0.6	13.6	20.0	0.0	0.0	NA	0.42	4.00	0.000	0.000		
		WS112	3.00 - 10.00		-3.0	0.3	0.3	0.0	0.0	0.0	1.2	0.2	19.0	20.5	0.0	0.0	NA	3.94	4.05	0.000	0.004		
		WS117	0.50 - 1.00		-2.0	0.2	0.2	0.8	0.0	16.0	0.0	17.3	0.6	2.4	19.8	0.0	0.0	NA	NGW	1.30	0.002	0.035	
		WS120	1.00 - 4.00		-1.0	0.1	0.1	0.0	0.0	0.0	1.6	0.5	16.7	19.5	0.0	0.0	NA	1.28	4.05	0.000	0.002		
		WS122	1.00 - 4.00		-3.0	0.3	0.3	0.0	0.0	0.0	10.7	0.8	16.7	19.5	10.0	0.0	NA	3.94	4.05	0.000	0.032		
		BH12	5.00 - 10.00		1.0	0.2	0.2	0.0	0.0	0.0	0.8	0.3	14.3	20.3	0.0	0.0	NA	1.47	3.07	0.000	0.002		
		BH15	1.00 - 7.00		0.0	0.1	0.1	0.0	0.0	0.0	0.8	0.4	14.8	17.5	0.0	0.0	NA	1.43	7.00	0.000	0.001		
Area 14	WS126	1.00 - 4.00		5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	19.8	20.6	0.0	0.0	NA	1.86	4.00	0.000	0.000			
	WS128	2.00 - 4.00		-1.0	0.1	0.1	0.0	0.0	0.0	0.9	0.2	19.2	20.5	10.0	0.0	NA	1.34	3.30	0.000	0.001			
	WS132	3.00 - 5.00		6.0	3.2	0.3	0.0	0.0	0.0	0.4	0.0	19.4	20.6	0.0	0.0	NA	1.50	4.75	0.000	0.001			
	BH14	3.00 - 10.00		156.0	19.6	15.3	0.0	0.0	0.0	0.1	0.1	13.7	20.2	0.0	0.0	NA	7.45	9.45	0.000	2.096			
Area 15	WS133	0.80 - 2.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring		
	WS135	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring		
	WS136	0.70 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring		
	WS151	1.00 - 4.00		43.0	46.9	4.3	0.0	0.0	0.0	2.6	0.5	16.4	20.2	0.0	0.0	NA	0.81	3.49	0.000	0.112			
Area 16	WS141	1.00 - 4.00		0.0	0.1	0.0	0.0	0.0	0.0	1.7	0.4	18.1	20.1	0.0	0.0	NA	2.96	3.04	0.000	0.000			
Area 17	WS142	1.00 - 4.00		-9.0	42.3	1.4	0.0	0.0	0.0	1.2	0.2	19.6	20.6	0.0	0.0	NA	0.65	3.6	0.000	0.274			
	BH17	4.00 - 10.00		10.0	47.0	1.8	0.0	0.0	0.0	2.6	0.9	16.3	19.9	20.0	0.0	NA	1.21	9.37	0.000	0.047			
Area 19	WS146	1.00 - 4.00		6.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	20.6	20.6	0.0	0.0	NA	0.40	4.00	0.000	0.000			
	WS147	1.00 - 4.00		0.0	0.1	0.0	0.0	0.0	0.0	1.7	0.7	18.2	20.0	0.0	0.0	NA	9.76	11.70	0.000	0.000			
	WS150	0.50 - 4.00		0.0	0.1	0.0	NA	0.0	NA	0.0	1.7	NA	17.3	0.0	0.0	NA	3.45	3.9	-	-	Well head flooded, no peak		
	CP10	10.00 - 12.00		0.0	0.1	0.0	0.0	0.0	0.0	1.8	0.8	18.3	19.8	0.0	0.0	NA	3.80	3.88	0.000	0.000			
PM	Ambient	X.00 - X.00		1005			0.0			0.0		0.0											

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes	
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)						
15/07/2020	AM	Ambient	X.00 - X.00	1012				0.0	0.0	0.0	0.0	0.0	0.0	21.0	20.2	0.0	0.0	NA	0.39	3.98	0.000	0.000		
	Area 1	WS01	0.50 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	14.2	14.2	NA	0.0	NA	0.0	1.86	3.97	0.000	-	Well head flooded, no peak	
		WS03	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	4.7	NA	16.9	NA	0.0	NA	0.0	GL	3.92	0.000	-	Well head flooded, no peak	
		WS05	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.1	NA	20.1	NA	0.0	NA	0.0	GL	3.97	0.000	-	Well head flooded, no peak	
		WS09	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.1	NA	21.3	NA	0.0	NA	0.0	GL	3.97	0.000	-	Well head flooded, no peak	
		WS10	1.00 - 4.00	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.7	20.1	20.7	NA	0.0	NA	0.64	2.30	0.000	0.000		
		WS12	0.5 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	21.1	21.2	NA	0.0	NA	0.56	3.73	0.000	0.000		
		WS15	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	20.0	20.7	NA	0.0	NA	0.42	3.93	0.000	0.000		
	Area 2	BH01	5.00 - 10.00	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	20.2	21.1	NA	0.0	NA	0.0	1.22	8.95	0.000	0.000		
		WS16	0.50 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	19.9	20.5	NA	0.0	NA	0.0	0.65	3.61	0.000	0.000		
		WS19	0.50 - 2.00	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.0	NA	0.1	NA	20.5	NA	0.0	NA	0.27	2.05	0.000	-	Well head flooded, no peak	
		WS22	2.00 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.8	NA	19.8	NA	0.0	NA	0.0	1.02	3.96	-	-	Well head flooded, no peak	
		WS24	1.00 - 4.00	2.0	0.4	0.3	0.0	0.0	0.0	0.0	2.0	0.4	18.3	20.3	NA	0.0	NA	0.0	1.56	3.92	0.000	0.006		
		WS26	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	4.07	-	-	Instant recharge on bailing
		WS27	2.00 - 4.00	0.0	10.0	4.6	0.0	0.0	0.0	0.0	0.0	3.6	1.0	8.1	17.3	NA	0.0	NA	0.0	2.07	4.00	0.000	0.166	
		WS28	1.40 - 3.00	0.0	0.0	-1.5	0.0	0.0	0.0	0.0	0.0	1.2	0.2	18.6	20.5	NA	0.0	NA	0.0	0.45	3.01	0.000	0.018	
		WS29	1.00 - 4.00	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	4.0	1.1	12.5	18.9	NA	0.0	NA	0.0	0.72	3.81	0.000	0.012	
WS31		0.50 - 4.00	0.0	0.0	-0.7	0.0	0.0	0.0	0.0	0.0	0.8	0.1	18.2	20.7	NA	0.0	NA	0.0	0.27	3.81	0.000	0.006		
16/07/2020	Area 4	WS33	1.50 - 4.00	0.0	7.3	2.4	0.0	0.0	0.0	0.0	1.6	0.4	13.9	19.1	NA	0.0	NA	0.0	0.57	3.81	0.000	0.038		
		BH16	3.00 - 10.00	0.0	2.3	1.5	0.0	0.0	0.0	0.0	1.2	0.6	15.9	18.1	NA	0.0	NA	0.0	0.65	9.51	0.000	0.018		
		WS34	0.50 - 4.00	0.0	0.0	-1.7	NA	0.0	NA	0.0	NA	0.1	NA	20.2	NA	0.0	NA	0.0	GL	3.74	-	-	Well head flooded, no peak	
		WS35	0.30 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.0	NA	0.0	NA	0.0	0.37	3.81	-	-	Well head flooded, no peak	
		WS36	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS38	3.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS40	0.50 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.6	NA	21.0	NA	0.0	NA	0.0	0.39	3.91	-	-	Well head flooded, no peak	
	Area 5	WS44	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS46	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS48	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.6	13.4	21.0	NA	0.0	NA	0.0	0.36	4.04	0.000	0.000		
	Area 6	WS50	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.2	13.4	14.0	NA	0.0	NA	0.0	2.00	4.04	0.000	0.000		
		WS52	1.00 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.1	NA	0.0	NA	0.0	0.30	4.94	-	-	Well head flooded, no peak	
		BH08	3.00 - 10.00	-26.7	-17.2	-17.2	0.0	0.0	0.0	0.0	1.2	0.2	19.0	20.9	NA	0.0	NA	0.0	1.10	9.77	0.000	0.206		
		WS53	0.50 - 4.00	0.0	0.0	-2.4	0.0	0.0	0.0	0.0	0.3	0.3	19.6	19.7	NA	0.0	NA	0.0	0.30	4.02	0.000	0.007		
		WS55	2.50 - 4.00	16.0	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.1	18.2	20.7	NA	0.0	NA	0.0	1.04	4.00	0.000	0.000		
		WS54	1.00 - 3.00	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	1.5	0.4	20.0	20.9	NA	0.0	NA	0.0	0.52	4.00	0.000	0.002		
		WS56	1.00 - 4.00	0.0	13.0	0.4	0.0	0.0	0.0	0.0	0.6	0.2	19.4	21.2	NA	0.0	NA	0.0	0.48	4.03	0.000	0.002		
Area 8		WS61	1.00 - 3.00	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	NA	21.1	NA	0.0	NA	0.0	0.63	NA	0.000	0.000		
	WS62	0.50 - 4.00	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	2.6	0.9	17.3	19.7	NA	0.0	NA	0.0	0.90	3.81	0.000	0.003			
	WS65	1.50 - 4.00	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.4	0.2	20.5	21.1	NA	0.0	NA	0.0	0.45	4.00	0.000	0.001			
	WS67	1.50 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.2	20.3	21.0	NA	0.0	NA	0.0	0.27	3.39	0.000	0.000			
	WS69	0.50 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.1	NA	20.7	NA	0.0	NA	0.0	0.46	3.36	-	-	Well head flooded, no peak		
17/07/2020	Area 9	BH09	5.00 - 10.00	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	20.5	21.0	NA	0.0	NA	0.0	1.11	7.44	0.000	0.000			
		WS70	0.50 - 2.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.7	19.1	20.2	NA	0.0	NA	0.0	0.73	1.53	0.000	0.000		
		WS71	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.2	18.7	17.4	NA	0.0	NA	0.0	1.09	3.98	0.000	0.000		
		WS72	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.9	19.1	20.8	NA	0.0	NA	0.0	1.20	3.99	0.000	0.000		
	Area 10	BH10	3.00 - 10.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	20.2	21.4	NA	0.0	NA	0.0	7.15	7.19	0.000	0.000		
		WS74	1.50 - 4.00	0.0	2.9	0.0	0.0	0.0	0.0	0.0	4.9	1.5	14.9	19.0	NA	0.0	NA	0.0	0.58	3.92	0.000	0.000		
		WS77	1.00 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	1.6	NA	18.6	NA	0.0	NA	0.0	0.62	3.97	-	-	Well head flooded, no peak	
	Area 11	WS75	1.50 - 4.00	0.0	0.1	0.1	0.5	0.5	0.0	0.0	6.9	3.2	4.3	11.3	NA	0.0	NA	0.0	0.65	2.45	0.001	0.007		
		WS81	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.8	17.9	18.5	NA	0.0	NA	0.0	0.78	4.03	0.000	0.000		
		WS84	0.50 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.7	17.5	19.7	NA	0.0	NA	0.0	0.65	4.06	0.000	0.000		
		WS85	1.00 - 4.00	NA	NA	NA	NA	NA	NA	0.0	NA	6.8	NA	7.8	NA	0.0	NA	0.0	2.38	4.00	-	-		
		WS87	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.8	12.9	20.5	NA	0.0	NA	0.0	0.57	3.20	0.000	0.000		
WS89		1.50 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.7	17.9	18.8	NA	0.0	NA	0.0	0.57	4.00	0.000	0.000			
WS91		1.00 - 4.00	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Site could not be found due to high grass		
WS96		0.50 - 2.00	0.0	4.6	0.8	0.0	0.0	0.0	0.0	6.6	4.4	6.6	10.4	NA	0.0	NA	0.0	0.44	1.53	0.000	0.053			

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes		
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)							
20/07/2020	Area 12	WS97	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.20	3.20	-	-	Well not found due to long grass
		WS99	1.00 - 4.00	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	1.7	0.4	18.2	20.1	NA	0.0	NA	NA	NA	0.69	3.94	0.000	0.005	
		BH11	3.00 - 10.00	0.0	2.8	2.8	0.0	0.0	0.0	0.0	0.0	1.6	0.8	14.0	15.3	NA	0.0	NA	NA	NA	2.05	8.00	0.000	0.045	
	Area 13	WS101	0.50 - 4.00	0.0	-3.0	-0.2	0.0	0.0	0.0	0.0	13.7	11.5	0.3	2.5	NA	0.0	NA	NA	NA	0.00	3.70	0.000	0.027		
		WS103	2.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	21.2	21.2	NA	0.0	NA	NA	NA	0.91	3.95	0.000	0.000		
		WS104	0.50 - 4.00	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.6	0.4	19.1	19.7	NA	0.0	NA	NA	NA	0.49	3.07	0.000	0.001		
		WS106	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well couldn't be found in long grass
		WS109	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well couldn't be found in long grass
		WS110	0.50 - 4.00	0.0	-3.0	-0.2	0.0	0.0	0.0	0.0	0.0	3.0	1.4	17.6	19.3	NA	0.0	NA	NA	NA	0.22	4.00	0.000	0.006	
		WS112	3.00 - 10.00	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	1.5	0.1	17.2	2.1	NA	0.0	NA	NA	NA	0.00	4.05	0.000	0.003	
		WS117	0.50 - 1.00	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.4	21.0	21.0	NA	0.0	NA	NA	NA	0.63	1.30	0.000	0.001	
		WS120	1.00 - 4.00	-1.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.6	0.5	16.7	19.5	NA	0.0	NA	NA	NA	1.28	4.05	0.000	0.002	
		WS122	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.1	NA	21.0	NA	0.0	NA	NA	NA	0.00	4.05	0.000	-	Well head flooded, no peak
		BH12	5.00 - 10.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.1	20.1	NA	0.0	NA	NA	NA	0.34	3.07	0.000	0.000	
		BH15	1.00 - 7.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.5	12.2	16.9	NA	0.0	NA	NA	NA	1.00	7.00	0.000	0.000	
	Area 14	WS126	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.4	15.7	19.8	NA	0.0	NA	NA	NA	0.53	4.00	0.000	0.000		
		WS128	2.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.7	16.8	20.0	NA	0.0	NA	NA	NA	1.30	3.30	0.000	0.000		
		WS132	3.00 - 5.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.3	18.0	20.1	NA	0.0	NA	NA	NA	1.01	4.75	0.000	0.000		
		BH14	3.00 - 10.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	19.1	20.3	NA	0.0	NA	NA	NA	6.47	9.45	0.000	0.000		
	Area 15	WS133	0.80 - 2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS135	0.50 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS136	0.70 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
		WS151	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring
	Area 16	WS141	1.00 - 4.00	0.0	16.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	17.5	18.1	NA	0.0	NA	NA	0.53	3.04	0.000	0.000	
	Area 17	WS142	1.00 - 4.00	0.0	9.2	1.2	0.0	0.0	0.0	0.0	1.4	1.1	19.5	20.2	NA	0.0	NA	NA	NA	0.00	3.6	0.000	0.017		
		BH17	4.00 - 10.00	0.0	17.2	3.2	0.0	0.0	0.0	0.0	3.4	1.8	16.1	18.4	NA	0.0	NA	NA	NA	0.90	9.37	0.000	0.109		
	Area 19	WS146	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	20.3	20.4	NA	0.0	NA	NA	NA	0.00	4.00	0.000	0.000		
		WS147	1.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	20.1	20.3	NA	0.0	NA	NA	NA	0.22	11.70	0.000	0.000		
		WS150	0.50 - 4.00	NA	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	1.1	NA	17.8	NA	0.0	NA	NA	3.45	3.9	-	-	Well head flooded, no peak
	PM	CP10	10.00 - 12.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.2	NA	0.0	NA	NA	NA	9.91	3.88	-	-	Well head flooded, no peak	

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes	
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)						
30/07/2020	AM	Ambient	X.00 - X.00	1013				0.0		0.0		0.0		21.0		0.0	0.0							
	Area 1	WS01	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	16.5	20.7	NA	0.0	NA	1.45	3.98	0.000	0.000		
		WS03	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	2.4	NA	16.9	NA	0.0	NA	1.86	3.97	-	-	Well head flooded, no peak	
		WS05	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	0.2	NA	21.0	NA	0.0	NA	0.11	3.92	0.000	0.000		
		WS09	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	19.7	20.7	NA	0.0	NA	0.14	3.97	0.000	0.000		
		WS10	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5	20.2	20.6	NA	0.0	NA	0.80	2.30	0.000	0.000		
		WS12	0.5 - 4.00		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.2	20.7	21.0	NA	0.0	NA	0.71	3.73	0.000	0.001		
		WS15	1.00 - 4.00		-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	20.4	21.0	NA	0.0	NA	0.21	3.93	0.000	0.000		
	Area 2	BH01	5.00 - 10.00		0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.5	0.1	20.2	21.1	NA	0.0	NA	0.47	8.95	0.000	0.001		
		WS16	0.50 - 4.00		-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	19.9	20.5	NA	0.0	NA	0.53	3.61	0.000	0.000		
		WS19	0.50 - 2.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	19.0	20.3	NA	0.0	NA	0.30	2.05	-	-	Well head flooded, no peak	
		WS22	2.00 - 4.00		0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.5	NA	19.5	NA	0.0	NA	0.89	3.96	-	-	Well head flooded, no peak	
		WS24	1.00 - 4.00		-0.1	0.2	0.2	0.0	0.0	0.0	1.3	0.3	18.3	20.8	NA	0.0	NA	1.23	3.92	0.000	0.003			
		WS26	1.00 - 4.00		-0.1	0.1	0.0	0.0	0.0	0.0	1.7	0.8	17.4	19.1	NA	0.0	NA	0.50	4.07	0.000	0.000			
		WS27	2.00 - 4.00		-0.1	0.4	0.2	0.0	0.0	0.0	2.9	1.5	12.2	17.9	NA	0.0	NA	1.78	4.00	0.000	0.006			
		WS28	1.40 - 3.00		-0.1	0.1	0.1	0.0	0.0	0.0	0.6	0.4	19.4	20.0	NA	0.0	NA	0.40	3.01	0.000	0.001			
		WS29	1.00 - 4.00		-0.1	0.3	0.3	0.0	0.0	0.0	2.8	0.9	15.1	19.1	NA	0.0	NA	0.65	3.81	0.000	0.008			
		WS31	0.50 - 4.00		-0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.3	19.0	19.8	NA	0.0	NA	0.62	3.81	0.000	0.000			
		WS33	1.50 - 4.00		0.0	0.1	0.1	0.0	0.0	0.0	1.6	0.4	13.9	19.1	NA	0.0	NA	0.66	3.81	0.000	0.002			
	Area 4	BH16	3.00 - 10.00		0.0	0.4	0.2	0.0	0.0	0.0	0.9	0.3	17.8	20.0	NA	0.0	NA	0.59	9.51	0.000	0.002			
		WS34	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Well not found due to long grass	
		WS35	0.30 - 4.00		0.1	0.0	0.0	NA	0.0	NA	0.0	NA	0.1	NA	20.9	NA	0.0	NA	0.42	3.81	-	-	Well head flooded, no peak	
		WS36	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Livestock prevented monitoring	
		WS38	3.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Livestock prevented monitoring	
		WS40	0.50 - 4.00		0.0	0.0	0.0	NA	0.0	NA	0.0	NA	0.2	NA	20.9	NA	0.0	NA	0.45	3.91	-	-	Well head flooded, no peak	
		WS44	2.00 - 4.00		0.3	0.3	0.1	0.0	0.0	0.0	1.4	1.4	17.4	17.6	NA	0.0	NA	0.50	3.41	0.000	0.001			
		WS46	1.00 - 4.00		0.2	0.1	0.0	0.0	0.0	0.0	1.9	1.2	14.7	17.9	NA	0.0	NA	1.87	4.02	0.000	0.000			
03/08/2020	Area 5	WS48	1.00 - 4.00	1012	0.2	-7.5	0.0	0.0	0.0	0.0	1.6	0.4	20.2	20.9	NA	0.0	NA	0.75	4.04	0.000	0.000			
		WS50	1.00 - 4.00		0.2	NA	0.1	NA	0.0	NA	0.0	NA	2.6	NA	10.4	NA	0.0	NA	0.80	4.04	-	-	Well head flooded, no peak	
		WS52	1.00 - 4.00		NA	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	21.3	NA	0.0	NA	0.31	4.94	-	-	Well head flooded, no peak	
	Area 6	BH08	3.00 - 10.00		0.3	1.3	0.6	0.0	0.0	0.0	2.9	0.3	13.9	20.3	NA	0.0	NA	1.50	9.77	0.000	0.017			
		WS53	0.50 - 4.00		NA	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	20.9	NA	0.0	NA	0.54	4.02	-	-	Well head flooded, no peak	
		WS55	2.50 - 4.00		0.3	-0.2	0.1	0.0	0.0	0.0	0.5	0.1	19.6	20.6	NA	0.0	NA	0.90	4.00	0.000	0.001			
	Area 7	WS54	1.00 - 3.00		0.6	0.7	0.0	0.0	0.0	0.0	2.5	0.8	19.8	20.2	NA	0.0	NA	0.55	4.00	0.000	0.000			
		WS56	1.00 - 4.00		0.1	0.0	0.0	0.0	0.0	0.0	1.4	0.5	20.4	21.0	NA	0.0	NA	0.98	4.03	0.000	0.000			
	Area 8	WS61	1.00 - 3.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found	
		WS62	0.50 - 4.00		0.6	-0.1	0.0	0.0	0.0	0.0	2.2	1.0	20.0	20.6	NA	0.0	NA	0.80	3.81	0.000	0.000			
		WS65	1.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	4.00	-	-	-	Well flooded immediate recharge after bailing	
		WS67	1.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.39	-	-	-	Well flooded immediate recharge after bailing	
		WS69	0.50 - 4.00		0.2	0.0	0.0	0.0	0.0	0.0	1.5	0.1	18.3	21.1	NA	0.0	NA	0.47	3.36	0.000	0.000			
	Area 9	BH09	5.00 - 10.00		0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	21.1	21.2	NA	0.0	NA	1.00	7.44	0.000	0.000			
		WS70	0.50 - 2.00		NA	NA	0.0	NA	0.0	NA	0.0	NA	6.7	NA	10.8	NA	0.0	NA	0.70	1.53	-	-	Well head flooded, no peak	
		WS71	1.00 - 4.00		0.6	0.0	0.0	0.0	0.0	0.0	1.9	0.1	18.1	21.1	NA	0.0	NA	0.25	3.98	0.000	0.000			
		WS72	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19	3.99	0.000	0.000	Well not found	
	Area 10	BH10	3.00 - 10.00		0.4	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	21.2	21.2	NA	0.0	NA	2.00	7.19	0.000	0.000			
		WS74	1.50 - 4.00		0.4	0.2	0.0	0.0	0.0	0.0	1.5	0.2	18.8	21.0	NA	0.0	NA	0.43	3.92	0.000	0.000			
		WS77	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.97	-	-	-	Well flooded immediate recharge after bailing	
		WS75	1.50 - 4.00		NA	NA	1.5	NA	0.5	NA	10.0	NA	6.1	NA	4.5	NA	0.0	NA	0.61	2.45	0.000	0.000	Well head flooded, no peak	
	Area 11	WS81	1.00 - 4.00		0.5	0.2	0.0	0.0	0.0	0.0	4.9	1.5	10.7	18.2	NA	0.0	NA	0.65	4.03	0.000	0.000			
		WS84	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.4	18.4	20.6	NA	0.0	NA	0.71	4.06	0.000	0.000			
		WS85	1.00 - 4.00		0.9	0.1	0.0	0.0	0.0	0.0	7.2	1.3	2.1	18.1	NA	0.0	NA	1.50	4.00	0.000	0.000			
		WS87	1.00 - 4.00		1.2	0.4	0.1	0.0	0.0	0.0	2.2	0.8	19.4	20.6	NA	0.0	NA	0.82	3.20	0.000	0.002			
		WS89	1.50 - 4.00		0.8	0.2	0.0	0.0	0.0	0.0	1.1	0.3	20.1	20.9	NA	0.0	NA	0.62	4.00	0.000	0.000			
		WS91	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	Well not found	
		WS93	1.00 - 4.00		9.4	1.8	0.1	0.0	0.0	0.0	1.3	0.3	17.8	20.3	NA	0.0	NA	1.00	3.48	0.000	0.001			
		WS96	0.50 - 2.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	1.53	-	-	-	Well flooded immediate recharge after bailing	

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes		
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)							
04/08/2020	Area 12	WS97	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.20	-	-	Well flooded immediate recharge after bailing		
		WS99	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.94	-	-	Well flooded immediate recharge after bailing		
		BH11	3.00 - 10.00		-9.5	2.2	0.2	0.0	0.0	0.0	0.0	1.4	0.3	15.7	19.8	NA	0.0	NA	2.00	8.00	0.000	0.003			
	Area 13	WS101	0.50 - 4.00	1010	-3.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	16.5	16.8	0.8	2.8	NA	0.0	NA	0.41	3.70	0.000	0.066		
		WS103	2.00 - 4.00		0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.3	20.3	21.1	NA	0.0	NA	0.72	3.95	0.000	0.001		
		WS104	0.50 - 4.00		NA	NA	1.9	NA	0.0	NA	0.0	NA	0.1	NA	21.3	NA	0.0	NA	0.73	3.07	-	-	Well head flooded, no peak		
		WS106	1.00 - 4.00		NA	NA	0.3	NA	0.0	NA	0.0	NA	1.6	NA	18.2	NA	0.0	NA	0.80	4.00	-	-	Well head flooded, no peak		
		WS109	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found	
		WS110	0.50 - 4.00		-24.8	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.2	13.7	21.1	NA	0.0	NA	0.30	4.00	0.000	0.000			
		WS112	3.00 - 10.00		NA	NA	0.1	NA	0.0	NA	0.0	NA	1.0	NA	20.9	NA	0.0	NA	0.85	4.05	-	-	Well head flooded, no peak		
		WS117	0.50 - 1.00		0.0	0.9	0.2	0.0	0.0	0.0	0.0	1.1	1.1	20.8	20.7	NA	0.0	NA	0.75	1.30	0.000	0.002			
		WS120	1.00 - 4.00		1.4	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.1	21.6	21.7	NA	0.0	NA	0.32	4.05	0.000	0.000			
		WS122	1.00 - 4.00		NA	NA	0.3	NA	0.0	NA	0.0	NA	0.6	NA	21.1	NA	0.0	NA	0.80	4.05	-	-	Well head flooded, no peak		
		BH12	5.00 - 10.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found	
		BH15	1.00 - 7.00		44.3	0.3	0.2	0.4	0.2	8.0	4.0	1.8	0.8	14.0	18.4	NA	0.0	NA	0.91	7.00	0.001	0.004			
		Area 14	WS126	1.00 - 4.00		NA	NA	0.3	NA	0.0	NA	0.0	NA	0.1	NA	21.6	NA	0.0	NA	0.50	4.00	-	-	Well head flooded, no peak	
			WS127	1.00 - 4.00		0.2	0.1	0.1	0.0	0.0	0.0	4.4	2.4	14.7	17.6	NA	0.0	NA	1.08	3.95	0.000	0.004			
			WS128	2.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found
			WS132	3.00 - 5.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found
			BH14	3.00 - 10.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found
Area 15	WS133	0.80 - 2.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring		
	WS135	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring		
	WS136	0.70 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring		
	WS151	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.49	-	-	Livestock prevented monitoring	
03/08/2020	Area 16	WS141	1.00 - 4.00	1012	NA	NA	1.5	NA	0.0	NA	0.0	NA	0.0	NA	20.8	NA	0.0	NA	0.50	3.04	-	-	Well head flooded, no peak		
		WS142	1.00 - 4.00		NA	NA	0.3	NA	0.0	NA	0.0	NA	0.3	NA	21.0	NA	0.0	NA	GL	0.7	-	-	Well head flooded, no peak		
	Area 17	BH17	4.00 - 10.00		0.3	1.5	0.5	0.0	0.0	0.0	0.0	1.7	0.6	18.4	20.0	NA	0.0	NA	0.64	9.37	0.000	0.009			
		WS146	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	4.00	-	-	Well flooded immediate recharge after bailing		
	Area 19	WS147	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	21.0	21.1	NA	0.0	NA	0.30	3.88	0.000	0.000			
		WS150	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		CP10	10.00 - 12.00		NA	NA	0.0	NA	0.0	NA	0.0	NA	0.5	NA	20.5	NA	0.0	NA	3.00	11.70	-	-	Well head flooded, no peak		
	PM	Ambient	X.00 - X.00					0.0		0.0			0.0		21.0		0.0								

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes	
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)						
12/08/2020	AM	Ambient	X.00 - X.00	1011				0.0		0.0		0.0		21.5		0.0	0.0							
	Area 1	WS01	0.50 - 4.00	0.6	0.0	-0.4	0.0	0.0	0.0	0.0	0.0	1.5	0.1	17.4	20.3	NA	0.0	NA	GL	3.98	0.000	0.006		
		WS03	1.00 - 4.00	0.6	16.7	6.6	0.0	0.0	0.0	0.0	0.0	5.4	3.1	1.3	6.0	NA	0.0	NA	GL	3.97	0.000	0.356		
		WS05	1.00 - 4.00	0.6	6.0	0.8	0.0	0.0	0.0	0.0	0.0	1.7	0.1	19.2	20.8	NA	0.0	NA	GL	3.92	0.000	0.014		
		WS09	1.00 - 4.00	0.6	10.0	3.5	0.0	0.0	0.0	0.0	0.0	1.0	0.4	18.9	19.4	NA	0.0	NA	0.44	3.97	0.000	0.035		
		WS10	1.00 - 4.00	0.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0	3.1	2.2	16.7	17.7	NA	0.0	NA	0.65	2.30	0.000	0.006		
		WS12	0.5 - 4.00	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.4	19.0	20.0	NA	0.0	NA	0.44	3.73	0.000	0.000		
		WS15	1.00 - 4.00	0.3	-0.2	-5.8	0.0	0.0	0.0	0.0	0.0	0.2	0.1	18.5	20.7	NA	0.0	NA	GL	3.93	0.000	0.012		
	Area 2	BH01	5.00 - 10.00	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.3	18.5	20.1	NA	0.0	NA	0.47	8.95	0.000	0.000		
		WS16	0.50 - 4.00	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.4	19.0	20.0	NA	0.0	NA	GL	3.61	0.000	0.000		
		WS19	0.50 - 2.00	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.4	19.0	20.0	NA	0.0	NA	GL	2.05	0.000	0.000	Well head flooded, no peak	
		WS22	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found	
		WS24	1.00 - 4.00	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	18.1	20.0	0.0	0.0	NA	GL	3.92	0.000	0.000		
		WS26	1.00 - 4.00	0.9	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	20.3	NA	0.0	0.0	NA	GL	4.07	-	-	Well head flooded, no peak	
		WS27	2.00 - 4.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	19.7	20.3	NA	0.0	NA	GL	4.00	0.000	0.000		
		WS28	1.40 - 3.00	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	19.1	20.1	NA	0.0	NA	GL	3.01	0.000	0.000		
		WS29	1.00 - 4.00	0.9	8.0	1.4	0.0	0.0	0.0	0.0	0.0	0.2	0.3	15.7	18.9	NA	0.0	NA	0.28	3.81	0.000	0.220		
		WS31	0.50 - 4.00	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.9	19.7	20.1	NA	0.0	NA	GL	3.81	0.000	0.000		
		WS33	1.50 - 4.00	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.8	18.1	18.9	NA	0.0	NA	GL	3.81	0.000	0.000		
	Area 4	BH16	3.00 - 10.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found	
		WS34	0.50 - 4.00	1.0	NA	0.0	NA	0.0	NA	0.0	NA	3.0	NA	14.0	NA	0.0	0.0	NA	0.46	NA	-	-	Well head flooded, no peak	
		WS35	0.30 - 4.00	1.1	NA	0.0	NA	0.0	NA	0.0	NA	2.0	NA	18.9	NA	0.0	0.0	NA	0.63	3.81	-	-	Well head flooded, no peak	
		WS36	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		WS38	3.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		WS40	0.50 - 4.00	1.0	NA	0.4	NA	0.1	NA	2.0	NA	0.3	NA	19.9	NA	0.0	0.0	NA	GL	3.91	-	-	Well head flooded, no peak	
		WS44	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		WS46	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
	Area 5	WS48	1.00 - 4.00	1.6	NA	0.5	NA	0.0	NA	0.0	NA	0.1	NA	20.6	NA	0.0	0.0	NA	GL	4.04	-	-	Well head flooded, no peak	
		WS50	1.00 - 4.00	1.6	NA	0.1	NA	0.0	NA	0.0	NA	0.5	NA	12.1	NA	0.0	0.0	NA	0.88	4.04	-	-	Well head flooded, no peak	
		WS52	1.00 - 4.00	1.6	NA	-1.3	NA	0.0	NA	0.0	NA	0.1	NA	20.5	NA	0.0	0.0	NA	GL	4.94	-	-	Well head flooded, no peak	
		BH08	3.00 - 10.00	0.9	-16.7	-16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.3	20.5	NA	0.0	NA	GL	9.77	0.000	0.000		
13/08/2020	Area 6	WS53	0.50 - 4.00	1011	0.3	0.0	-5.1	0.0	0.0	0.0	0.0	0.1	0.1	20.8	20.8	NA	0.0	NA	GL	4.02	0.000	0.005		
		WS55	2.50 - 4.00	0.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	19.7	20.6	NA	0.0	NA	0.84	4.00	0.000	0.001		
	Area 7	WS54	1.00 - 3.00	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.3	20.0	20.7	NA	0.0	NA	0.63	4.00	0.000	0.000		
		WS56	1.00 - 4.00	0.4	14.7	3.0	0.0	0.0	0.0	0.0	0.0	1.7	0.5	19.8	20.5	NA	0.0	NA	0.87	4.03	0.000	0.051		
	Area 8	WS61	1.00 - 3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.30	-	-	Well not found	
		WS62	0.50 - 4.00	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	4.2	1.3	16.6	19.7	NA	0.0	NA	0.86	3.81	0.000	0.004		
		WS65	1.50 - 4.00	0.7	NA	-0.9	NA	0.0	NA	0.0	NA	0.6	NA	20.6	NA	0.0	0.0	NA	GL	4.00	0.000	0.000		
		WS67	1.50 - 4.00	0.5	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	20.8	NA	0.0	0.0	NA	GL	3.39	0.000	0.000		
		WS69	0.50 - 4.00	2.3	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	20.6	NA	0.0	0.0	NA	GL	3.36	0.000	0.000		
		BH09	5.00 - 10.00	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	20.7	20.8	NA	0.0	NA	0.83	7.44	0.000	0.000		
	Area 9	WS70	0.50 - 2.00	0.9	8.6	2.8	0.0	0.0	0.0	0.0	0.0	4.4	2.8	13.1	14.2	NA	0.0	NA	0.41	1.53	0.000	0.123		
		WS71	1.00 - 4.00	0.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	18.0	20.0	NA	0.0	NA	GL	3.98	0.000	0.000		
		WS72	1.00 - 4.00	0.8	NA	0.0	NA	0.0	NA	0.0	NA	0.2	NA	20.8	NA	0.0	0.0	NA	0.55	3.99	-	-	Well head flooded, no peak	
		BH10	3.00 - 10.00	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8	20.8	NA	0.0	NA	0.55	7.19	0.000	0.000		
	Area 10	WS74	1.50 - 4.00	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9	1.5	14.9	19.0	NA	0.0	NA	0.58	3.92	0.000	0.000		
		WS77	1.00 - 4.00	0.0	0.0	0.0	NA	0.0	NA	0.0	NA	1.6	NA	18.6	NA	0.0	0.0	NA	0.62	3.97	0.000	0.000		
		WS75	1.50 - 4.00	2.3	0.5	0.4	0.4	0.1	8.0	2.0	5.4	4.4	10.4	11.1	NA	0.0	0.0	GL	2.45	0.002	0.022			
	Area 11	WS81	1.00 - 4.00	0.7	NA	-1.0	NA	0.0	NA	0.0	NA	0.1	NA	20.4	NA	0.0	0.0	NA	GL	4.03	-	-	Well head flooded, no peak	
		WS84	0.50 - 4.00	1.1	4.6	1.0	0.0	0.0	0.0	0.0	0.0	0.9	0.2	18.0	19.7	NA	0.0	NA	0.67	4.06	0.000	0.009		
		WS85	1.00 - 4.00	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.1	10.7	15.6	NA	0.0	NA	0.94	4.00	0.000	0.000		
		WS87	1.00 - 4.00	0.9	NA	-0.2	NA	0.0	NA	3.1	NA	3.1	NA	17.1	NA	0.0	0.0	NA	0.56	3.20	-	-	Well head flooded, no peak	
		WS89	1.50 - 4.00	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.2	19.6	20.5	NA	0.0	NA	0.51	4.00	0.000	0.001		
		WS91	1.00 - 4.00	0.9	12.9	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.2	14.2	17.5	NA	0.0	NA	0.77	NA	0.000	0.000		
		WS93	1.00 - 4.00	0.7	6.9	3.6	0.0	0.0	0.0	0.0	0.0	1.0	0.1	18.3	20.6	NA	0.0	NA	0.52	3.48	0.000	0.036		
		WS96	0.50 - 2.00	0.7	NA	0.7	NA	0.0	NA	0.0	NA	0.2	NA	20.5	NA	0.0	0.0</							

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes		
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)							
14/08/2020	Area 12	WS97	1.00 - 4.00	1012	2.0	3.4	0.3	0.0	0.0	0.0	0.9	0.2	19.9	20.9	NA	0.0	NA	0.55	3.20	0.000	0.003				
		WS99	1.00 - 4.00		0.7	NA	-9.2	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	GL	3.94	-		-		
		BH11	3.00 - 10.00		0.6	0.0	0.0	0.0	0.0	0.0	1.2	0.2	16.2	19.9	NA	0.0	NA	1.64	8.00	0.000	0.000				
	Area 13	WS101	0.50 - 4.00		0.5	0.1	0.0	0.0	0.0	0.0	0.0	5.3	3.2	12.1	17.2	NA	0.0	NA	0.40	3.70	0.000		0.000		
		WS103	2.00 - 4.00		0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	20.5	20.5	NA	0.0	NA	0.60	3.95	0.000		0.000		
		WS104	0.50 - 4.00		2.5	-2.1	-2.1	0.0	0.0	0.0	0.0	1.1	0.1	19.7	20.1	NA	0.0	NA	0.41	3.07	0.000		0.023		
		WS106	1.00 - 4.00		0.3	9.1	2.2	0.0	0.0	0.0	0.0	2.0	1.2	14.9	17.1	NA	0.0	NA	0.72	4.00	0.000		0.044		
		WS109	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-		-	Well not found	
		WS110	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		-	-	Well destroyed
		WS112	3.00 - 10.00		0.5	-0.1	-0.6	0.0	0.0	0.0	0.0	1.8	0.1	18.8	20.9	NA	0.0	NA	GL	4.05	0.000		0.011		
		WS117	0.50 - 1.00		0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	20.4	20.4	NA	0.0	NA	1.18	1.30	0.000		0.000		
		WS120	1.00 - 4.00		0.7	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.8	NA	0.0	NA	GL	4.05	-		-		
		WS122	1.00 - 4.00		0.4	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.1	NA	0.0	NA	GL	4.05	-		-	Well head flooded, no peak	
	Area 14	BH12	5.00 - 10.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-		-	Well not found	
		BH15	1.00 - 7.00		3.3	14.5	7.0	1.3	0.5	26.0	10.0	2.1	1.0	14.4	17.4	NA	0.0	NA	0.87	7.00	0.091		1.008		
		WS126	1.00 - 4.00		0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.2	0.2	20.1	20.2	NA	0.0	NA	GL	4.00	0.000		0.000		
		WS128	2.00 - 4.00		0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	20.4	20.4	NA	0.0	NA	GL	3.30	0.000		0.000		
		WS132	3.00 - 5.00		6.0	3.2	0.3	0.0	0.0	0.0	0.0	0.4	0.0	19.4	20.6	NA	0.0	NA	1.50	4.75	0.000		0.001		
	Area 15	BH14	3.00 - 10.00		0.1	1.7	0.8	0.0	0.0	0.0	0.0	0.1	0.1	13.7	20.2	NA	0.0	NA	7.45	9.45	0.000		0.001		
		WS133	0.80 - 2.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-		-	Livestock prevented monitoring	
		WS135	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-		-	Livestock prevented monitoring	
		WS136	0.70 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-		-	Livestock prevented monitoring	
		WS151	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.49		-	-	Livestock prevented monitoring
Area 16	WS141	1.00 - 4.00	1012	0.1	-2.0	-2.6	0.0	0.0	0.0	0.4	0.0	19.6	20.1	NA	0.0	NA	GL	3.04	0.000	0.010					
Area 17	WS142	1.00 - 4.00	0	0.3	0.0	0.0	0.0	0.0	0.0	1.4	1.1	19.5	20.2	NA	0.0	NA	GL	3.58	0.017	0.000					
Area 19	BH17	4.00 - 10.00	1	-0.3	-0.8	0.0	0.0	0.0	0.0	1.7	0.6	18.4	19.5	NA	0.0	NA	0.52	9.37	0.000	0.000					
	WS146	1.00 - 4.00	0.9	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.8	NA	0.0	NA	GL	4.00	-	0.000	Well head flooded, no peak				
	WS147	1.00 - 4.00	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	20.6	20.7	NA	0.0	NA	GL	3.88	0.000	0.000					
	WS150	0.50 - 4.00	0.5	2.0	0.0	0.0	0.0	0.0	0.0	1.7	1.2	18.1	18.6	0.0	0.0	NA	GL	3.93	0.000	0.000					
	CP10	10.00 - 12.00	-7.5	-5.4	-5.5	0.0	0.0	0.0	0.0	0.8	0.1	19.6	20.5	NA	0.0	NA	9.51	11.70	0.000	0.044					
PM	Ambient	X.00 - X.00				0.0		0.0		0.0		21.0		0.0	0.0										
26/08/2020	AM	Ambient	X.00 - X.00	1006			0.0		0.0	0.0	0.0	0.0	21.5		0.0	0.0									
Area 1	WS01	0.50 - 4.00	0.1	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.2	NA	0.0	NA	GL	3.98	-	-	Well head flooded, no peak				
	WS03	1.00 - 4.00	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.2	NA	21.0	NA	0.0	NA	GL	3.97	-	-	Well head flooded, no peak				
	WS05	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring				
	WS09	1.00 - 4.00	0.6	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.3	NA	0.0	NA	GL	3.97	-	-	Well head flooded, no peak				
	WS10	1.00 - 4.00	6.4	NA	3.0	NA	0.0	NA	0.0	NA	0.2	NA	21.2	NA	0.0	NA	GL	2.30	-	-	Well head flooded, no peak				
	WS12	0.5 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring				
	WS15	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring				
	BH01	5.00 - 10.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.3	19.8	19.9	NA	0.0	NA	GL	8.66	-	-	Well head flooded, no peak					
	Area 2	WS16	0.50 - 4.00	6.5	NA	4.3	NA	0.0	NA	0.0	NA	0.3	NA	21.2	NA	0.0	NA	GL	3.61	-	-	Well head flooded, no peak			
		WS19	0.50 - 2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass			
		WS22	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass			
		WS24	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.92	-	-	Well flooded immediate recharge after bailing			
		WS26	1.00 - 4.00	0.2	NA	0.6	NA	0.0	NA	0.0	NA	0.1	NA	21.4	NA	0.0	NA	GL	4.07	-	-	Well head flooded, no peak			
		WS27	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	4.00	-	-	Well flooded immediate recharge after bailing			
		WS28	1.40 - 3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass			
		WS29	1.00 - 4.00	0.4	-0.1	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	21.4	21.4	NA	0.0	NA	GL	3.81	0.000	0.000				
		WS31	0.50 - 4.00	0.2	1.0	0.8	0.0	0.0	0.0	0.0	1.0	0.1	19.1	21.4	NA	0.0	NA	GL	3.81	0.000	0.008				
WS33		1.50 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.81	-	-	Well flooded immediate recharge after bailing				
Area 3	BH16	3.00 - 10.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass				
	WS127	1.00 - 4.00	0.2	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.2	NA	0.0	NA	GL	4.01	-	-	Well head flooded, no peak				
Area 4	WS34	0.50 - 4.00	0.6	NA	0.3	NA	0.0	NA	0.0	NA	0.1	NA	20.9	NA	0.0	NA	GL	NA	-	-	Well head flooded, no peak				
	WS35	0.30 - 4.00	0.4	NA	0.1	NA	0.0	NA	0.0	NA	0.2	NA	21.1	NA	0.0	NA	GL	3.81	-	-	Well head flooded, no peak				
	WS36	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring				

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes		
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)							
27/08/2020	Area 5	WS38	3.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		WS40	0.50 - 4.00	0.2	NA	2.8	NA	0.0	NA	0.0	NA	0.1	NA	21.2	NA	0.0	NA	0.0	NA	GL	3.91	-	-	Well head flooded, no peak	
		WS44	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass
		WS46	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass
		WS48	1.00 - 4.00	2.5	NA	1.0	NA	0.0	NA	0.0	NA	0.5	NA	21.1	NA	0.0	NA	0.0	NA	GL	4.04	-	-	Well head flooded, no peak	
		WS50	1.00 - 4.00	0.2	11.3	2.9	0.0	0.0	0.0	0.0	0.0	0.4	0.2	19.2	20.3	NA	0.0	NA	0.56	4.04	0.000	0.012			
	Area 6	WS52	1.00 - 4.00	0.3	7.7	2.4	0.0	0.0	0.0	0.0	0.6	0.2	20.7	21.2	NA	0.0	NA	0.52	4.94	0.000	0.014				
		BH08	3.00 - 10.00	0.1	-1.1	-1.5	0.0	0.0	0.0	0.0	1.4	0.5	18.2	20.2	NA	0.0	NA	2.70	9.77	0.000	0.021				
		WS53	0.50 - 4.00	0.3	2.0	0.8	0.0	0.0	0.0	0.0	0.2	0.1	20.9	21.1	NA	0.0	NA	0.81	4.02	0.000	0.002				
	Area 7	WS55	2.50 - 4.00	3.9	NA	4.7	NA	0.0	NA	0.0	NA	0.2	NA	21.1	NA	0.0	NA	GL	4.00	-	-	-	-	Well head flooded, no peak	
		WS54	1.00 - 3.00	0.8	NA	0.2	NA	0.0	NA	0.0	NA	0.1	NA	21.3	NA	0.0	NA	GL	4.00	-	-	-	-	Well head flooded, no peak	
	Area 8	WS56	1.00 - 4.00	0.2	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	21.4	NA	0.0	NA	GL	4.03	-	-	-	-	Well head flooded, no peak	
		WS61	1.00 - 3.00	1009	0.3	15.0	1.4	0.0	0.0	0.0	0.8	0.2	20.8	21.0	NA	0.0	NA	0.56	3.30	0.000	0.011				
	Area 9	WS62	0.50 - 4.00	0.1	0.5	1.0	0.0	0.0	0.0	0.0	1.0	0.5	20.5	20.7	NA	0.0	NA	0.67	3.81	0.000	0.010				
		WS65	1.50 - 4.00	0.1	9.8	2.1	0.0	0.0	0.0	0.0	0.3	0.1	20.9	21.1	NA	0.0	NA	GL	4.00	0.000	0.006				
		WS67	1.50 - 4.00	0.2	0.7	0.9	0.0	0.0	0.0	0.0	0.2	0.1	21.2	21.3	NA	0.0	NA	GL	3.39	0.000	0.002				
		WS69	0.50 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00	3.36	-	-	-	-	Well flooded immediate recharge after bailing	
		BH09	5.00 - 10.00	0.4	0.4	0.3	0.0	0.0	0.0	0.0	0.1	0.1	20.9	21.0	NA	0.0	NA	0.66	7.44	0.000	0.000				
		WS70	0.50 - 2.00	0.5	NA	-0.2	NA	0.0	NA	0.0	NA	0.1	NA	21.4	NA	0.0	NA	GL	1.53	-	-	-	-	Well head flooded, no peak	
		WS71	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	3.98	-	-	-	-	Well flooded immediate recharge after bailing	
		WS72	1.00 - 4.00	0.2	4.5	1.0	0.0	0.0	0.0	0.0	0.3	0.1	21.3	21.3	NA	0.0	NA	0.19	3.99	0.000	0.003				
		Area 10	BH10	3.00 - 10.00	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	21.2	NA	0.0	NA	0.24	7.19	0.000	0.000			
			WS74	1.50 - 4.00	0.2	12.6	1.0	0.0	0.0	0.0	0.0	0.8	0.2	20.8	21.5	NA	0.0	NA	0.48	3.92	0.000	0.008			
	Area 11	WS77	1.00 - 4.00	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	21.4	21.4	NA	0.0	NA	GL	3.97	0.000	0.000				
		WS75	1.50 - 4.00	2.6	7.5	2.5	0.1	0.0	2.0	0.0	2.6	0.4	17.0	20.8	NA	0.0	NA	0.32	2.45	0.003	0.065				
		WS81	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	GL	4.03	-	-	-	-	Well flooded immediate recharge after bailing	
		WS84	0.50 - 4.00	0.3	9.0	0.8	0.0	0.0	0.0	0.0	0.2	0.1	21.1	21.3	NA	0.0	NA	0.61	4.06	0.000	0.002				
		WS85	1.00 - 4.00	0.4	13.0	2.6	0.0	0.0	0.0	0.0	0.7	0.3	20.6	21.1	NA	0.0	NA	0.76	4.00	0.000	0.018				
		WS87	1.00 - 4.00	0.2	0.0	-2.0	0.2	0.0	4.0	0.0	1.2	0.1	20.4	20.7	NA	0.0	NA	0.34	3.20	0.004	0.024				
	Area 12	WS89	1.50 - 4.00	0.3	7.8	1.0	0.0	0.0	0.0	0.0	0.1	0.0	21.5	21.5	NA	0.0	NA	0.49	4.00	0.000	0.001				
		WS91	1.00 - 4.00	0.4	4.2	1.0	0.0	0.0	0.0	0.0	0.3	0.1	20.4	21.1	NA	0.0	NA	0.44	NA	0.000	0.003				
		WS93	1.00 - 4.00	0.1	NA	2.1	NA	0.0	NA	0.0	NA	0.1	NA	21.4	NA	0.0	NA	GL	3.48	-	-	-	-	Well head flooded, no peak	
		WS96	0.50 - 2.00	1.9	15.2	3.0	0.0	0.0	0.0	0.0	0.9	0.6	20.1	20.6	NA	0.0	NA	0.40	1.53	0.000	0.027				
		WS97	1.00 - 4.00	0.2	NA	0.0	NA	0.0	NA	0.0	NA	0.1	NA	1.4	NA	0.0	NA	GL	3.20	-	-	-	-	Well head flooded, no peak	
		WS99	1.00 - 4.00	0.2	1.6	0.5	0.0	0.0	0.0	0.0	0.7	0.1	20.8	21.3	NA	0.0	NA	0.22	3.94	0.000	0.004				
		Area 13	BH11	3.00 - 10.00	0.4	3.6	1.5	0.0	0.0	0.0	0.0	0.7	0.5	17.5	18.2	NA	0.0	NA	0.25	8.00	0.000	0.011			
WS101			0.50 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	Well destroyed	
Area 14		WS103	2.00 - 4.00	0.3	NA	0.3	NA	0.1	NA	2.0	NA	0.1	NA	21.3	NA	0.0	NA	GL	3.95	-	-	-	-	Well head flooded, no peak	
		WS104	0.50 - 4.00	0.4	8.0	3.1	0.0	0.0	0.0	0.0	1.8	0.1	19.6	21.3	NA	0.0	NA	0.10	3.07	0.000	0.056				
	WS106	1.00 - 4.00	0.1	7.2	0.5	0.0	0.0	0.0	0.0	0.1	0.1	21.4	21.4	NA	0.0	NA	0.40	4.00	0.000	0.001					
	WS109	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	Well not found due to long grass		
	WS110	0.50 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	Well flooded immediate recharge after bailing		
	WS112	3.00 - 10.00	0.0	34.0	1.1	0.0	0.0	0.0	0.0	0.5	0.1	20.9	21.2	NA	0.0	NA	GL	4.05	0.000	0.006					
	WS117	0.50 - 1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	-	Well flooded immediate recharge after bailing	
	WS120	1.00 - 4.00	1.8	NA	0.3	NA	0.0	NA	0.0	NA	0.1	NA	21.5	NA	0.0	NA	GL	4.05	-	-	-	-	Well head flooded, no peak		
	WS122	1.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	-	Well flooded immediate recharge after bailing	
	BH12	5.00 - 10.00	0.4	8.0	2.0	0.0	0.0	0.0	0.0	0.8	0.4	18.6	19.7	NA	0.0	NA	0.57	3.07	0.000	0.016					
Area 15	BH15	1.00 - 7.00	1.2	1.6	5.0	1.6	0.2	32.0	4.0	1.6	0.2	18.0	20.7	NA	0.0	NA	0.44	7.00	0.080	0.080					
	WS126	1.00 - 4.00	999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	-	Well flooded immediate recharge after bailing	
	WS128	2.00 - 4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	-	Well flooded immediate recharge after bailing	
	WS132	3.00 - 5.00	0.1	1.7	0.8	0.0	0.0	0.0	0.0	0.1	0.1	21.2	21.3	NA	0.0	NA	GL	4.75	0.000	0.001					
	BH14	3.00 - 10.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	-	-	Well flooded immediate recharge after bailing	
	WS133	0.80 - 2.00	0.5	3.5	0.5	0.0	0.0	0.0	0.0	0.1	0.1	21.3	21.4	NA	0.0	NA	0.41	1.73	-	-	-	-	-		
Area 15	WS135	0.50 - 4.00	0.4	NA	0.3	NA	0.0	NA	0.0	NA	0.1	NA	21.4	NA	0.0	NA	GL	3.91	-	-	-	-	-	Well head flooded, no peak	
	WS136	0.70 - 4.00	0.5	NA	0.0	NA	0.0	NA	0.0	NA	0.1	21.3	0.0	NA	0.0	NA	GL	3.74	-	-	-	-	-	Well head flooded, no peak	
	WS151	1.00 - 4.00	0.6	3.0	0.5	0.0	0.0	0.0	0.0	0.5	0.1	20.6	21.1	NA	0.0	NA	0.42	3.49	0.000	0.003					

Ground Gas Monitoring Results



Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes	
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)						
		Area 16	WS141	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well destroyed
		Area 17	WS142	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass
			BH17	4.00 - 10.00		0.8	3.1	0.5	0.0	0.0	0.0	0.5	0.1	20.8	21.3	NA	0.0	NA	0.60	9.37	0.000	0.003		
		Area 19	WS146	1.00 - 4.00		2.0	NA	0.5	NA	0.0	0.0	NA	0.4	NA	20.5	NA	0.0	NA	GL	4.00	-	-	Well head flooded, no peak	
			WS147	1.00 - 4.00		2.0	1.0	0.5	0.0	0.0	0.0	0.4	0.2	20.5	21.1	NA	0.0	NA	GL	3.88	0.000	0.002		
			WS150	0.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Horses become aggressive no monitoring	
			CP10	10.00 - 12.00		0.1	NA	-0.2	NA	0.0	NA	0.3	NA	20.9	NA	0.0	NA	NA	8.44	11.70	-	-	Well head flooded, no peak	
	PM	Ambient		X.00 - X.00				0.0	0.0	0.0	0.0	0.0	21.5	20.9	0.0	0.0	0.0							
26/08/2020	AM	Ambient		X.00 - X.00	1019			0.0	0.0	0.0	0.0	0.0	21.5	20.9	0.0	0.0	0.0							
		Area 1	WS01	0.50 - 4.00		-10.2	0.0	0.0	0.0	0.0	0.0	1.3	0.3	19.7	20.3	0.0	0.0	NA	0.50	3.98	0.000	0.000		
			WS03	1.00 - 4.00		10.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	20.3	20.5	0.0	0.0	NA	0.58	3.97	0.000	0.000		
			WS05	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS09	1.00 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.2	NA	20.3	0.0	0.0	0.0	NA	GL	3.97	-	-	Well head flooded, no peak	
			WS10	1.00 - 4.00		-53.0	-6.3	0.0	0.0	0.0	0.0	7.6	0.0	12.7	20.3	0.0	0.0	NA	GL	2.30	0.000	0.000		
			WS12	0.5 - 4.00		0.0	-4.0	0.0	0.0	0.0	0.0	3.6	0.3	17.0	20.0	0.0	0.0	NA	0.40	3.73	0.000	0.000		
			WS15	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			BH01	5.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.5	18.6	20.4	0.0	0.0	NA	0.48	8.95	0.000	0.000		
		Area 2	WS16	0.50 - 4.00		-8.0	0.0	0.0	0.0	0.0	0.0	2.0	0.2	17.7	19.7	0.0	0.0	NA	0.24	3.61	0.000	0.000		
			WS19	0.50 - 2.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS22	2.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS24	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS26	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS27	2.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS28	1.40 - 3.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
			WS29	1.00 - 4.00		10.0	21.3	0.0	0.0	0.0	0.0	0.7	0.0	19.9	20.5	0.0	0.0	NA	0.68	3.81	0.000	0.000		
			WS31	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3	19.8	20.6	0.0	0.0	NA	0.32	3.81	0.000	0.000		
			WS33	1.50 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Well not found due to long grass	
			BH16	3.00 - 10.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	Livestock prevented monitoring	
		Area 3	WS127	1.00 - 4.00		0.0	7.4	0.0	0.0	0.0	0.0	0.7	0.0	19.9	20.7	0.0	0.0	NA	0.68	3.98	0.000	0.000		
		Area 4	WS34	0.50 - 4.00		0.0	28.7	0.0	0.0	0.0	0.0	0.9	0.3	19.5	20.3	0.0	0.0	NA	0.35	3.74	0.000	0.000		
			WS35	0.30 - 4.00		0.0	3.0	0.0	0.0	0.0	0.0	7.2	0.1	14.3	20.3	0.0	0.0	NA	GL	3.81	0.000	0.000		
			WS36	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Livestock prevented monitoring	
			WS38	3.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Livestock prevented monitoring	
			WS40	0.50 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.8	0.0	0.0	0.0	NA	0.24	3.91	-	-	Well head flooded, no peak	
			WS44	2.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Livestock prevented monitoring	
			WS46	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Livestock prevented monitoring	
		Area 5	WS48	1.00 - 4.00		11.0	13.0	2.0	0.0	0.0	0.0	2.1	0.0	19.4	20.7	0.0	0.0	NA	GL	4.04	0.000	0.000		
			WS50	1.00 - 4.00		0.0	4.5	0.0	0.0	0.0	0.0	2.5	0.6	18.2	19.2	0.0	0.0	NA	0.43	4.04	0.000	0.000		
			WS52	1.00 - 4.00		5.0	4.6	0.0	0.0	0.0	0.0	2.4	0.8	18.9	20.1	0.0	0.0	NA	0.48	4.94	0.000	0.000		
			BH08	3.00 - 10.00		-51.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6	18.9	19.3	0.0	0.0	NA	2.70	9.77	0.000	0.000		
		Area 6	WS53	0.50 - 4.00		-12.0	-1.3	-1.7	0.0	0.0	0.0	0.0	0.0	20.7	20.7	0.0	0.0	NA	0.10	4.02	0.000	0.000		
			WS55	2.50 - 4.00		0.0	21.0	0.0	0.0	0.0	0.0	0.9	0.1	1.9	20.3	0.0	0.0	NA	0.73	4.00	0.000	0.000		
		Area 7	WS54	1.00 - 3.00		0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.4	19.9	20.5	0.0	0.0	NA	0.49	4.00	0.000	0.000		
			WS56	1.00 - 4.00		0.0	20.2	0.0	0.0	0.0	0.0	1.8	0.4	19.3	20.3	0.0	0.0	NA	0.66	4.03	0.000	0.000		
09/09/2020		Area 8	WS61	1.00 - 3.00	1022	0.0	2.4	0.0	0.0	0.0	0.0	3.6	0.8	18.3	19.8	0.0	0.0	NA	0.54	3.3	0.000	0.000		
			WS62	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	3.3	1.1	18.3	19.7	0.0	0.0	NA	0.57	3.81	0.000	0.000		
			WS65	1.50 - 4.00		0.0	24.8	0.0	0.0	0.0	0.0	0.7	0.2	19.9	20.3	0.0	0.0	NA	0.33	3.30	0.000	0.000		
			WS67	1.50 - 4.00		0.0	11.6	0.0	0.0	0.0	0.0	5.8	2.0	17.7	19.2	0.0	0.0	NA	0.40	3.39	0.000	0.000		
			WS69	0.50 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.5	0.0	0.0	0.0	NA	GL	3.36	-	-	Well head flooded, no peak	
			BH09	5.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	19.8	20.3	0.0	0.0	NA	0.69	7.44	0.000	0.000		
		Area 9	WS70	0.50 - 2.00		0.0	0.9	0.0	0.0	0.0	0.0	4.5	0.5	18.3	20.2	0.0	0.0	NA	0.39	1.53	0.000	0.000		
			WS71	1.00 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.5	0.0	0.0	0.0	NA	GL	3.98	-	-	Well head flooded, no peak	
			WS72	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	17.0	20.1	10.0	0.0	NA	0.17	3.99	0.000	0.000		
			BH10	3.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8	20.3	0.0	0.0	NA	0.54	7.19	0.000	0.000		
		Area 10	WS74	1.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.2	16.3	17.8	0.0	0.0	NA	0.53	3.92	0.000	0.000		

Ground Gas Monitoring Results



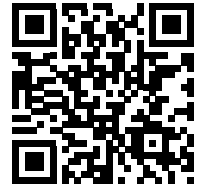
Date	Time	Location	Response zone (m)	Pressures (mb)		Gas flows (l/hr)		CH ₄ (%v/v)		CH ₄ (%LEL)		CO ₂ (%v/v)		O ₂ (%v/v)		Other Gases (PPM)			Depth to Water (m)	Well Base (m)	Gas Screening Value (CH ₄) (l/hr)	Gas Screening Value (CO ₂) (l/hr)	Notes	
				Atmospheric Pressure	Relative Well Pressure	Initial	Steady	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady	CO	H ₂ S	TVOC (PID)						
11/09/2020	Area 11	WS77	1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.0	17.1	17.7	0.0	0.0	NA	GL	3.97	0.000	0.000			
		WS75	1.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	8.9	1.9	7.1	16.2	0.0	0.0	NA	GL	2.45	0.000	0.000			
		WS81	1.00 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.5	0.0	0.0	NA	GL	4.03	-	-	Well head flooded, no peak	
		WS84	0.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.3	18.7	19.5	0.0	0.0	NA	0.60	4.06	0.000	0.000		
		WS85	1.00 - 4.00		0.0	15.6	0.0	0.0	0.0	0.0	0.0	3.0	0.8	16.8	19.3	0.0	0.0	NA	0.73	4.00	0.000	0.000		
		WS87	1.00 - 4.00		-10.0	0.0	0.5	3.0	0.0	60.0	0.0	3.4	0.0	17.4	20.5	0.0	0.0	NA	0.62	3.20	0.015	0.017		
		WS89	1.50 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.4	18.3	19.7	0.0	0.0	NA	0.49	4.00	0.000	0.000		
		WS91	1.00 - 4.00		-1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	17.2	18.7	0.0	0.0	NA	0.38	3.90	0.000	0.000		
		WS93	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	Well not found due to long grass
		WS96	0.50 - 2.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	3.2	13.3	14.9	0.0	0.0	NA	0.32	1.53	0.000	0.000		
	Area 12	WS97	1.00 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.4	0.0	0.0	NA	GL	3.20	-	-		
		WS99	1.00 - 4.00		-2.4	-3.7	-3.7	0.0	0.0	0.0	0.4	0.0	19.7	20.4	0.0	0.0	NA	0.40	3.94	0.000	0.015			
		BH11	3.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.5	13.5	17.4	0.0	0.0	NA	1.64	8.00	0.000	0.000			
		Area 13	WS101	0.50 - 4.00	1010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	Well destroyed
	WS103		2.00 - 4.00		0.0	4.7	0.0	0.0	0.0	0.0	0.6	0.4	19.4	19.9	0.0	0.0	NA	0.32	3.95	0.000	0.000			
	WS104		0.50 - 4.00		-49.0	-6.3	-6.3	0.0	0.0	0.0	0.0	1.6	0.1	15.2	20.0	0.0	0.0	NA	0.45	3.07	0.000	0.101		
	WS106		1.00 - 4.00		0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.6	13.1	17.9	0.0	0.0	NA	0.16	4.00	0.000	0.000			
	WS109		1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	Well not found due to long grass	
	WS110		0.50 - 4.00		0.0	5.9	0.0	0.0	0.0	0.0	0.0	5.4	0.9	14.7	16.6	10.0	0.0	NA	0.44	4.00	0.000	0.000		
	WS112		3.00 - 10.00		0.0	20.5	0.0	0.0	0.0	0.0	0.0	1.4	0.8	19.1	19.3	0.0	0.0	NA	0.74	4.05	0.000	0.000		
	WS117		0.50 - 1.00		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.8	14.4	19.3	0.0	0.0	NA	0.54	1.30	0.000	0.000		
	WS120		1.00 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.5	0.0	0.0	NA	GL	4.05	-	-	Well head flooded, no peak. Well head removed.	
	WS122		1.00 - 4.00		0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.5	0.0	0.0	NA	GL	4.05	-	-	Well head flooded, no peak. Well head removed.	
	Area 14	BH12	5.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	18.3	19.7	0.0	0.0	NA	0.54	3.07	0.000	0.000			
		BH15	1.00 - 7.00		0.0	0.0	0.0	8.0	2.2	160.0	44.0	2.9	0.6	14.6	18.9	10.0	0.0	NA	0.45	7.00	0.000	0.000		
		WS126	1.00 - 4.00		0.0	-0.1	0.0	0.0	0.0	0.0	0.3	0.2	19.9	20.2	NA	0.0	NA	GL	4.00	0.000	0.000			
		WS128	2.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	Well not found due to long grass	
		WS132	3.00 - 5.00		0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	19.8	20.4	0.0	0.0	NA	0.52	4.75	0.000	0.000			
		BH14	3.00 - 10.00		0.0	117.1	0.0	0.0	0.0	0.0	0.0	1.3	0.6	0.5	12.2	0.0	0.0	NA	1.86	9.45	0.000	0.000		
		Area 15	WS133	0.80 - 2.00	1022	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.5	17.0	19.4	0.0	0.0	NA	0.44	1.73	0.000	0.000		
WS135			0.50 - 4.00	1022	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.2	19.7	20.3	0.0	0.0	NA	0.30	3.91	0.000	0.000			
WS136	0.70 - 4.00		1022	0.0	43.5	0.0	0.0	0.0	0.0	1.5	0.1	19.6	20.3	0.0	0.0	NA	GL	3.74	0.000	0.000				
Area 16	WS151	1.00 - 4.00	1022	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.2	17.4	20.4	0.0	0.0	NA	0.33	3.49	0.000	0.000				
	WS141	1.00 - 4.00		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-	-	-	Well destroyed		
Area 17	WS142	1.00 - 4.00		0.0	3.4	0.0	0.0	0.0	0.0	1.7	0.0	18.1	20.4	0.0	0.0	NA	GL	3.58	0.000	0.000				
	BH17	4.00 - 10.00		0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	19.6	19.7	0.0	0.0	NA	0.52	9.37	0.000	0.000				
Area 19	WS146	1.00 - 4.00	1019	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.7	0.0	0.0	NA	GL	4.00	-	-	Well head flooded, no peak. Well head removed.		
	WS147	1.00 - 4.00	1019	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.0	NA	20.6	0.0	0.0	NA	GL	3.88	-	-	Well head flooded, no peak. Well head removed.		
	WS150	0.50 - 4.00	1019	0.0	NA	0.0	NA	0.0	NA	0.0	NA	0.6	NA	19.9	0.0	0.0	NA	0.40	3.93	-	-	Well head flooded, no peak. Well head removed.		
08/09/2020	PM	Ambient	X.00 - X.00	1019	0.0	NA	0.0	NA	0.0	NA	0.0	NA	1.8	NA	17.8	0.0	0.0	NA	8.70	11.70	-	-	Well head flooded, no peak. Well head removed.	

APPENDIX H

Waste Assessment Report



Waste Classification Report



NPYDL-9SM5N-JS7DA

Job name

The Lanes, Penwortham

Description/Comments

Project

C4259

Site

The Lanes, Penwortham

Related Documents

#	Name	Description
None		

Waste Stream Template

BSL Suite

Classified by

Name: Nicola Swallow	Company: Brownfield Solutions Ltd	HazWasteOnline™ Training Record:	
Date: 05 Aug 2020 08:17 GMT	William Smith House	Course	Date
Telephone: 01606 334 844	173 – 183 Witton Street	Hazardous Waste Classification	-
	Northwich	Advanced Hazardous Waste Classification	-
	CW9 5LP		

Report

Created by: Nicola Swallow
Created date: 05 Aug 2020 08:17 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	WS01	0.00-0.37	Non Hazardous		6
2	WS04	0.00-0.50	Non Hazardous		9
3	WS09	0.00-0.29	Non Hazardous		11
4	WS13	0.35-0.40	Non Hazardous		13
5	CP01	0.00-0.50	Non Hazardous		15
6	BH03	0.00-0.30	Non Hazardous		18
7	TP12	0.00-0.30	Non Hazardous		20
8	WS16	0.00-0.30	Non Hazardous		22
9	WS21	0.00-0.20	Non Hazardous		25
10	WS26	0.00-0.36	Non Hazardous		27
11	WS30	0.00-0.30	Non Hazardous		29
12	WS32	0.00-0.30	Non Hazardous		31



#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
13	TP23	0.00-0.30	Non Hazardous		33
14	TP27	0.00-0.30	Non Hazardous		35
15	WS19	0.80-1.00	Non Hazardous		37
16	WS24	0.00-0.30	Non Hazardous		39
17	WS27	0.40-0.60	Non Hazardous		41
18	WS28	0.00-0.30	Non Hazardous		43
19	WS29	0.00-0.40	Non Hazardous		45
20	TP21	0.00-0.30	Non Hazardous		47
21	TP22	0.00-0.30	Non Hazardous		49
22	TP25	0.80-1.00	Non Hazardous		51
23	TP26	0.00-0.35	Non Hazardous		53
24	TP28	0.00-0.30	Non Hazardous		55
25	TP31	0.00-0.30	Non Hazardous		57
26	TP32	0.00-0.30	Non Hazardous		59
27	TP33	0.00-0.30	Non Hazardous		61
28	TP35	0.00-0.30	Non Hazardous		63
29	TP38	0.00-0.30	Non Hazardous		65
30	TP39	0.00-0.30	Non Hazardous		67
31	TP40	0.00-0.30	Non Hazardous		69
32	WS140	0.35-1.20	Non Hazardous		71
33	WS02	0.00-0.40	Non Hazardous		73
34	WS03	0.30-0.65	Non Hazardous		75
35	WS05	0.00-0.30	Non Hazardous		77
36	WS06	0.00-0.30	Non Hazardous		79
37	WS07	0.00-0.37	Non Hazardous		81
38	WS12	0.00-0.40	Non Hazardous		83
39	WS14	0.00-0.35	Non Hazardous		85
40	BH04	0.00-0.30	Non Hazardous		87
41	TP01	0.00-0.30	Non Hazardous		89
42	TP02	0.00-0.30	Non Hazardous		91
43	TP06	0.00-0.30	Non Hazardous		93
44	TP11	0.00-0.30	Non Hazardous		95
45	TP13	0.80-1.00	Non Hazardous		97
46	TP15	0.00-0.30	Non Hazardous		99
47	TP17	0.00-0.30	Non Hazardous		101
48	TP18	0.00-0.30	Non Hazardous		103
49	WS127	0.00-0.30	Non Hazardous		105
50	TP170	0.00-0.52	Non Hazardous		107
51	TP171	0.00-0.60	Non Hazardous		109
52	TP172	0.00-0.36	Non Hazardous		111
53	TP173	0.00-0.19	Non Hazardous		113
54	TP174	0.00-0.20	Non Hazardous		115
55	WS35	0.00-0.30	Non Hazardous		117
56	WS36	0.00-0.30	Non Hazardous		119
57	WS37	0.00-0.30	Non Hazardous		121
58	WS39	0.00-0.20	Non Hazardous		123
59	WS42	0.25-0.45	Hazardous	HP 2	125
60	WS43	0.00-0.30	Non Hazardous		127
61	WS45	0.00-0.30	Non Hazardous		129
62	WS47	0.00-0.30	Non Hazardous		131
63	CP04	0.00-0.30	Non Hazardous		133
64	TP41	0.00-0.30	Non Hazardous		135
65	TP43	0.00-0.30	Non Hazardous		137
66	TP45	0.00-0.30	Non Hazardous		139
67	TP49	0.60-0.70	Non Hazardous		141
68	TP50	0.00-0.30	Non Hazardous		143
69	TP51	0.00-0.30	Non Hazardous		145
70	TP52	0.00-0.30	Non Hazardous		147
71	TP53	0.00-0.30	Non Hazardous		149
72	TP54	0.00-0.30	Non Hazardous		151
73	TP57	0.00-0.30	Non Hazardous		153
74	TP58	0.00-0.30	Non Hazardous		155
75	SA03	0.00-0.20	Non Hazardous		157
76	SA03[2]	0.90-1.00	Non Hazardous		159
77	TP61	0.00-0.40	Non Hazardous		161



#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
78	TP63	0.00-0.45	Non Hazardous		163
79	TP64	0.00-0.30	Non Hazardous		165
80	TP65	0.00-0.30	Non Hazardous		167
81	TP67	0.00-0.30	Non Hazardous		169
82	TP68	0.00-0.30	Non Hazardous		171
83	WS48	0.00-0.30	Non Hazardous		173
84	WS52	0.00-0.30	Non Hazardous		175
85	WS53	0.00-0.40	Non Hazardous		177
86	WS55	0.10-0.45	Non Hazardous		179
87	SA04	0.25-0.70	Non Hazardous		181
88	TP70	0.00-0.30	Non Hazardous		184
89	TP71	0.00-0.30	Non Hazardous		186
90	TP72	0.80-1.00	Non Hazardous		188
91	TP73	0.10	Non Hazardous		190
92	TP74	0.30	Non Hazardous		192
93	TP76	0.00-0.30	Non Hazardous		194
94	WS54	0.00-0.40	Non Hazardous		196
95	WS56	0.00-0.32	Non Hazardous		198
96	WS58	0.00-0.25	Non Hazardous		200
97	WS62	0.00-0.30	Non Hazardous		202
98	WS63	0.00-0.50	Non Hazardous		204
99	WS64	0.00-0.20	Non Hazardous		206
100	WS65	0.00-0.20	Non Hazardous		208
101	WS66	0.00-0.30	Non Hazardous		210
102	WS67	0.00-0.30	Non Hazardous		212
103	WS69	0.30-0.80	Non Hazardous		214
104	SA05	0.00-0.30	Non Hazardous		216
105	TP79	0.30-0.90	Non Hazardous		218
106	TP80	0.00-0.30	Non Hazardous		220
107	TP82	0.00-0.30	Non Hazardous		222
108	TP84	0.00-0.30	Non Hazardous		224
109	TP86	0.00-0.30	Non Hazardous		226
110	TP88	0.00-0.30	Non Hazardous		228
111	TP89	0.00-0.30	Non Hazardous		230
112	TP90	0.00-0.30	Non Hazardous		232
113	TP91	0.00-0.30	Non Hazardous		234
114	TP92	0.00-0.30	Non Hazardous		236
115	WS70	0.20-0.50	Non Hazardous		238
116	WS71	0.00-0.40	Non Hazardous		240
117	WS72	0.70-0.90	Non Hazardous		242
118	WS73	0.00-0.40	Non Hazardous		244
119	TP97	0.00-0.30	Non Hazardous		246
120	WS75	0.70-1.30	Non Hazardous		248
121	WS76	0.00-0.20	Non Hazardous		250
122	WS77	0.00-0.40	Non Hazardous		252
123	WS78	0.00-0.30	Non Hazardous		254
124	WS79	0.00-0.30	Non Hazardous		256
125	WS80	0.00-0.40	Non Hazardous		258
126	TP98	0.00-0.30	Non Hazardous		260
127	TP99	0.00-0.30	Non Hazardous		262
128	TP101	0.00-0.25	Non Hazardous		264
129	TP106	1.00-1.20	Non Hazardous		266
130	TP107	0.00-0.30	Non Hazardous		268
131	TP109	0.00-0.30	Non Hazardous		270
132	TP113	0.00-0.30	Non Hazardous		272
133	TP115	0.00-0.30	Non Hazardous		274
134	TP116	0.00-0.30	Non Hazardous		276
135	TP118	0.00-0.30	Non Hazardous		278
136	TP121	0.00-0.30	Non Hazardous		280
137	TP122	0.00-0.30	Non Hazardous		282
138	TP123	0.00-0.30	Non Hazardous		284
139	TP124	0.00-0.30	Non Hazardous		286
140	TP126	0.00-0.30	Non Hazardous		288
141	TP127	1.00-1.20	Non Hazardous		290
142	TP131	1.00-1.20	Non Hazardous		292



#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
143	TP205	0.50-1.00	Non Hazardous		294
144	TP206	0.40-0.80	Non Hazardous		296
145	TP207	0.40-0.60	Non Hazardous		298
146	WS82	0.00-0.20	Non Hazardous		300
147	WS83	0.00-0.20	Non Hazardous		302
148	WS84	0.00-0.20	Non Hazardous		304
149	WS85	0.30-0.40	Non Hazardous		306
150	WS86	0.00-0.40	Non Hazardous		308
151	WS87	0.30-1.29	Non Hazardous		310
152	WS88	0.00-0.20	Non Hazardous		313
153	WS89	0.00-0.20	Non Hazardous		315
154	WS91	0.00-0.20	Non Hazardous		317
155	WS98	0.00-0.30	Non Hazardous		319
156	WS99	0.00-0.60	Non Hazardous		321
157	WS100	0.00-0.30	Non Hazardous		323
158	TP133	0.00-0.30	Non Hazardous		325
159	TP136	0.00-0.30	Non Hazardous		327
160	TP137	0.00-0.30	Non Hazardous		329
161	TP139	0.00-0.30	Non Hazardous		331
162	TP141	0.30-0.45	Non Hazardous		333
163	TP142	0.00-0.40	Non Hazardous		335
164	TP144	0.00-0.30	Non Hazardous		337
165	TP145	0.00-0.28	Non Hazardous		339
166	TP147	0.00-0.32	Non Hazardous		341
167	TP149	0.00-0.30	Non Hazardous		343
168	TP150	0.00-0.30	Non Hazardous		345
169	TP151	0.00-0.30	Non Hazardous		347
170	TP152	0.80-1.00	Non Hazardous		349
171	TP155	0.00-0.30	Non Hazardous		351
172	TP156	0.00-0.30	Non Hazardous		353
173	TP157	0.00-0.30	Non Hazardous		355
174	TP160	0.00-0.30	Non Hazardous		357
175	TP161	0.00-0.30	Non Hazardous		359
176	TP163	0.00-0.30	Non Hazardous		361
177	TP165	0.00-0.30	Non Hazardous		363
178	TP166	0.00-0.50	Non Hazardous		365
179	TP167	0.00-0.20	Non Hazardous		367
180	TP168	0.00-0.30	Non Hazardous		369
181	TP169	0.40-1.00	Non Hazardous		371
182	TP187	0.00-0.30	Non Hazardous		373
183	SA06	0.00-0.40	Non Hazardous		375
184	SA08	0.00-0.50	Non Hazardous		377
185	WS101	0.00-0.35	Non Hazardous		379
186	WS102	0.00-0.35	Non Hazardous		381
187	WS104	0.30-1.00	Non Hazardous		383
188	WS106	0.00-0.30	Non Hazardous		385
189	WS107	0.00-0.25	Non Hazardous		387
190	WS109	0.00-0.38	Non Hazardous		389
191	WS110	0.00-0.23	Non Hazardous		391
192	WS112	0.00-0.20	Non Hazardous		393
193	WS113	0.00-0.46	Non Hazardous		395
194	WS115	0.00-0.20	Non Hazardous		397
195	WS117	0.30-1.00	Non Hazardous		399
196	WS119	0.00-0.38	Non Hazardous		401
197	WS121	0.00-0.50	Non Hazardous		403
198	WS126	0.25	Non Hazardous		405
199	WS128	0.25	Non Hazardous		407
200	WS129	0.20	Non Hazardous		409
201	WS132	0.25	Non Hazardous		411
202	TP177	0.00-0.30	Non Hazardous		413
203	TP179	0.00-0.30	Non Hazardous		415
204	TP180	0.00-0.40	Non Hazardous		417
205	TP181	0.50-0.70	Non Hazardous		419
206	TP183	0.00-0.30	Non Hazardous		421
207	TP184	0.00-0.20	Non Hazardous		423



#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
208	TP185	0.00-0.30	Non Hazardous		425
209	WS136	0.00-0.40	Non Hazardous		428
210	WS133	0.00-0.30	Non Hazardous		430
211	WS133[2]	0.30-0.60	Non Hazardous		432
212	WS135	0.00-0.40	Non Hazardous		434
213	WS153	0.00-0.30	Non Hazardous		436
214	WS152	0.00-0.30	Non Hazardous		438
215	WS156	0.00-0.40	Non Hazardous		440
216	WS108	0.00-0.27	Non Hazardous		442
217	WS141	0.04-0.34	Non Hazardous		444
218	BH17	0.00-0.50	Non Hazardous		446
219	WS142	0.00-0.30	Non Hazardous		449
220	WS143	0.00-0.30	Non Hazardous		451
221	TP194	0.00-0.30	Non Hazardous		453
222	TP195	0.00-0.30	Non Hazardous		455
223	WS145	0.00-0.30	Non Hazardous		457
224	WS147	0.00-0.40	Non Hazardous		459
225	WS148	0.50-1.00	Non Hazardous		461
226	WS149	0.00-0.40	Non Hazardous		463
227	WS158	0.00-0.38	Non Hazardous		465
228	WS159	0.00-0.40	Non Hazardous		467
229	WS161	0.00-0.20	Non Hazardous		469
230	WS163	0.00-0.35	Non Hazardous		471
231	SA12	0.00-0.30	Non Hazardous		473

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	475
Appendix B: Rationale for selection of metal species	476
Appendix C: Version	476



Classification of sample: WS01

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

Sample details

Sample Name:	WS01	LoW Code:	
Sample Depth:	0.00-0.37 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	26%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 26% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.5	pH		5.5	pH	5.5 pH		
2	arsenic { arsenic trioxide }				22	mg/kg	1.32	21.495	mg/kg	0.00215 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	1	mg/kg	1.285	0.951	mg/kg	0.000074 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				52	mg/kg	1.462	56.241	mg/kg	0.00562 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				90	mg/kg	1.126	74.984	mg/kg	0.0075 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	230	mg/kg	1.56	265.481	mg/kg	0.017 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1	mg/kg	1.353	1.002	mg/kg	0.0001 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				38	mg/kg	1.579	44.416	mg/kg	0.00444 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				260	mg/kg	1.245	239.483	mg/kg	0.0239 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				0.27	mg/kg		0.2	mg/kg	0.00002 %	✓	
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		1.8 mg/kg		1.332 mg/kg	0.000133 %	✓	
17	anthracene	204-371-1	120-12-7		0.63 mg/kg		0.466 mg/kg	0.0000466 %	✓	
18	fluoranthene	205-912-4	206-44-0		7.4 mg/kg		5.476 mg/kg	0.000548 %	✓	
19	pyrene	204-927-3	129-00-0		7.6 mg/kg		5.624 mg/kg	0.000562 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	4 mg/kg		2.96 mg/kg	0.000296 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	4.3 mg/kg		3.182 mg/kg	0.000318 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	8 mg/kg		5.92 mg/kg	0.000592 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	2.7 mg/kg		1.998 mg/kg	0.0002 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	5.1 mg/kg		3.774 mg/kg	0.000377 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		3.8 mg/kg		2.812 mg/kg	0.000281 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.99 mg/kg		0.733 mg/kg	0.0000733 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		3.9 mg/kg		2.886 mg/kg	0.000289 %	✓	
28	TPH (C6 to C40) petroleum group		TPH		123 mg/kg		91.02 mg/kg	0.0091 %	✓	
29	benzene	601-020-00-8	200-753-7	71-43-2	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
30	toluene	601-021-00-3	203-625-9	108-88-3	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
31	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
32	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]	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
33	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	<		<	<		ND
Total:								0.0742 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0091%)

Classification of sample: WS04

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

Sample details

Sample Name:	LoW Code:	
WS04	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.50 m		
Moisture content:		
27%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 27% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		25 mg/kg	1.32	24.096 mg/kg	0.00241 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	1.2 mg/kg	1.285	1.126 mg/kg	0.0000876 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		1.6 mg/kg	1.923	2.246 mg/kg	0.000225 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		53 mg/kg	1.462	56.548 mg/kg	0.00565 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		100 mg/kg	1.126	82.19 mg/kg	0.00822 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	290 mg/kg	1.56	330.213 mg/kg	0.0212 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.9 mg/kg	1.353	0.889 mg/kg	0.0000889 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		41 mg/kg	1.579	47.274 mg/kg	0.00473 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		300 mg/kg	1.245	272.592 mg/kg	0.0273 %	✓	
Total:								0.0701 %		



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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.


Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00022%)

Classification of sample: WS09


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

Sample details

Sample Name:	LoW Code:	
WS09	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.29 m		
Moisture content:		
29%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 29% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.5 pH		5.5 pH	5.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	17.811 mg/kg	0.00178 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.365 mg/kg	0.0000284 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		40 mg/kg	1.462	41.508 mg/kg	0.00415 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		49 mg/kg	1.126	39.17 mg/kg	0.00392 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	74 mg/kg	1.56	81.953 mg/kg	0.00525 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.9 mg/kg	1.353	0.865 mg/kg	0.0000865 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		29 mg/kg	1.579	32.522 mg/kg	0.00325 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		110 mg/kg	1.245	97.212 mg/kg	0.00972 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	benzene	601-020-00-8	200-753-7	71-43-2	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
29	toluene	601-021-00-3	203-625-9	108-88-3	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
30	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
31	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]	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
32	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	<		<	<		ND
Total:								0.0288 %		

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

Classification of sample: WS13

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

Sample details

Sample Name:	LoW Code:	
WS13	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.35-0.40 m		
Moisture content:		
35%		
(wet weight correction)		

Hazard properties

None identified

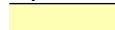



Determinands

Moisture content: 35% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				5.3 pH		5.3 pH	5.3 pH		
2	arsenic { arsenic trioxide }				17 mg/kg	1.32	14.59 mg/kg	0.00146 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.334 mg/kg	0.000026 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39 mg/kg	1.462	37.05 mg/kg	0.00371 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				51 mg/kg	1.126	37.323 mg/kg	0.00373 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	71 mg/kg	1.56	71.985 mg/kg	0.00462 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.9 mg/kg	1.353	0.792 mg/kg	0.0000792 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				25 mg/kg	1.579	25.667 mg/kg	0.00257 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				110 mg/kg	1.245	88.997 mg/kg	0.0089 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	xylene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<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]							
Total:								0.0256 %		



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

Classification of sample: CP01

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

Sample details

Sample Name: CP01	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.50 m	Entry:	
Moisture content: 26% (wet weight correction)		17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 26% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }				22	mg/kg	1.32	21.495	mg/kg	0.00215 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	1.1	mg/kg	1.285	1.046	mg/kg	0.0000814 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				1.4	mg/kg	1.923	1.992	mg/kg	0.000199 %	✓	
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				56	mg/kg	1.462	60.567	mg/kg	0.00606 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				97	mg/kg	1.126	80.816	mg/kg	0.00808 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	240	mg/kg	1.56	277.023	mg/kg	0.0178 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1	mg/kg	1.353	1.002	mg/kg	0.0001 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				39	mg/kg	1.579	45.584	mg/kg	0.00456 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				270	mg/kg	1.245	248.694	mg/kg	0.0249 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.98 mg/kg		0.725 mg/kg	0.0000725 %	✓	
17	anthracene	204-371-1	120-12-7		0.33 mg/kg		0.244 mg/kg	0.0000244 %	✓	
18	fluoranthene	205-912-4	206-44-0		4.3 mg/kg		3.182 mg/kg	0.000318 %	✓	
19	pyrene	204-927-3	129-00-0		4.7 mg/kg		3.478 mg/kg	0.000348 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	2.6 mg/kg		1.924 mg/kg	0.000192 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	2.7 mg/kg		1.998 mg/kg	0.0002 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	4 mg/kg		2.96 mg/kg	0.000296 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	2.5 mg/kg		1.85 mg/kg	0.000185 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	3.5 mg/kg		2.59 mg/kg	0.000259 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		2.5 mg/kg		1.85 mg/kg	0.000185 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.62 mg/kg		0.459 mg/kg	0.0000459 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		2.4 mg/kg		1.776 mg/kg	0.000178 %	✓	
28	TPH (C6 to C40) petroleum group		TPH		112.5 mg/kg		83.25 mg/kg	0.00833 %	✓	
29	benzene	601-020-00-8	200-753-7	71-43-2	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
30	toluene	601-021-00-3	203-625-9	108-88-3	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
31	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
32	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]	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
33	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		<		<	<		ND
Total:								0.0748 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00019%)

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00833%)



Classification of sample: BH03

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

Sample details

Sample Name:	BH03	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	23%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				15	mg/kg	1.32	15.25	mg/kg	0.00152 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.396	mg/kg	0.0000308 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42	mg/kg	1.462	47.267	mg/kg	0.00473 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				36	mg/kg	1.126	31.21	mg/kg	0.00312 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	54	mg/kg	1.56	64.857	mg/kg	0.00416 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.625	mg/kg	0.0000625 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				28	mg/kg	1.579	34.054	mg/kg	0.00341 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				96	mg/kg	1.245	92.009	mg/kg	0.0092 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	● acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	● fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	● phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
17	● anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
18	● fluoranthene				0.29 mg/kg		0.223 mg/kg	0.0000223 %	✓	
		205-912-4	206-44-0							
19	● pyrene				0.39 mg/kg		0.3 mg/kg	0.00003 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
25	● indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
27	● benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-883-8	191-24-2							
28	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
29	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
30	● ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
Total:								0.0268 %		

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



Classification of sample: TP12

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

Sample details

Sample Name:	TP12	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	27%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 27% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.4	pH		6.4	pH	6.4 pH		
2	arsenic { arsenic trioxide }				14	mg/kg	1.32	13.494	mg/kg	0.00135 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.281	mg/kg	0.0000219 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				5.5	mg/kg	1.923	7.721	mg/kg	0.000772 %	✓	
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33	mg/kg	1.462	35.209	mg/kg	0.00352 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				34	mg/kg	1.126	27.945	mg/kg	0.00279 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	47	mg/kg	1.56	53.517	mg/kg	0.00343 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				31	mg/kg	1.579	35.744	mg/kg	0.00357 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				81	mg/kg	1.245	73.6	mg/kg	0.00736 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	● acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	● fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	● phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
17	● anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
18	● fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
19	● pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
20	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
25	● indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
27	● benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-883-8	191-24-2							
28	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
29	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
30	● ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
Total:								0.0232 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00077%)



Classification of sample: WS16

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

Sample details

Sample Name:	WS16	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	27%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 27% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.6	pH		6.6	pH	6.6 pH		
2	arsenic { arsenic trioxide }				24	mg/kg	1.32	23.132	mg/kg	0.00231 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.469	mg/kg	0.0000365 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				1.3	mg/kg	1.923	1.825	mg/kg	0.000183 %	✓	
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42	mg/kg	1.462	44.811	mg/kg	0.00448 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				58	mg/kg	1.126	47.67	mg/kg	0.00477 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	110	mg/kg	1.56	125.253	mg/kg	0.00803 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				37	mg/kg	1.579	42.662	mg/kg	0.00427 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				120	mg/kg	1.245	109.037	mg/kg	0.0109 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	● acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	● fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	● phenanthrene	201-581-5	85-01-8		0.4 mg/kg		0.292 mg/kg	0.0000292 %	✓	
17	● anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	● fluoranthene	205-912-4	206-44-0		0.99 mg/kg		0.723 mg/kg	0.0000723 %	✓	
19	● pyrene	204-927-3	129-00-0		1.1 mg/kg		0.803 mg/kg	0.0000803 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.91 mg/kg		0.664 mg/kg	0.0000664 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.65 mg/kg		0.475 mg/kg	0.0000475 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1.3 mg/kg		0.949 mg/kg	0.0000949 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.39 mg/kg		0.285 mg/kg	0.0000285 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.78 mg/kg		0.569 mg/kg	0.0000569 %	✓	
25	● indeno[123-cd]pyrene	205-893-2	193-39-5		0.38 mg/kg		0.277 mg/kg	0.0000277 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	● benzo[ghi]perylene	205-883-8	191-24-2		0.39 mg/kg		0.285 mg/kg	0.0000285 %	✓	
28	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]	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
29	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		<		<	<		ND
Total:								0.0358 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."



Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00018%)



Classification of sample: WS21

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

Sample details

Sample Name:	LoW Code:	
WS21	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
26%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 26% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		20 mg/kg	1.32	19.541 mg/kg	0.00195 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.38 mg/kg	0.0000296 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		1.4 mg/kg	1.923	1.992 mg/kg	0.000199 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	37.854 mg/kg	0.00379 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		45 mg/kg	1.126	37.492 mg/kg	0.00375 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	150 mg/kg	1.56	173.139 mg/kg	0.0111 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.7 mg/kg	1.353	0.701 mg/kg	0.0000701 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	36.234 mg/kg	0.00362 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		93 mg/kg	1.245	85.661 mg/kg	0.00857 %	✓	
12	asbestos	650-013-00-6	-----		<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0333 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.


Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00019%)

Classification of sample: WS26


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

Sample details

Sample Name:	LoW Code:	
WS26	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.36 m		
Moisture content:		
23%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	19.316 mg/kg	0.00193 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.396 mg/kg	0.0000308 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		2.5 mg/kg	1.923	3.702 mg/kg	0.00037 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		38 mg/kg	1.462	42.765 mg/kg	0.00428 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		49 mg/kg	1.126	42.48 mg/kg	0.00425 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	82 mg/kg	1.56	98.487 mg/kg	0.00631 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		32 mg/kg	1.579	38.919 mg/kg	0.00389 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		100 mg/kg	1.245	95.843 mg/kg	0.00958 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.3 mg/kg		0.231 mg/kg	0.0000231 %	✓	
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.7 mg/kg		0.539 mg/kg	0.0000539 %	✓	
19	pyrene	204-927-3	129-00-0		0.73 mg/kg		0.562 mg/kg	0.0000562 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.47 mg/kg		0.362 mg/kg	0.0000362 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.45 mg/kg		0.347 mg/kg	0.0000346 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.69 mg/kg		0.531 mg/kg	0.0000531 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.21 mg/kg		0.162 mg/kg	0.0000162 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.48 mg/kg		0.37 mg/kg	0.000037 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.26 mg/kg		0.2 mg/kg	0.00002 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.3 mg/kg		0.231 mg/kg	0.0000231 %	✓	
28	benzene	601-020-00-8	200-753-7	71-43-2	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
29	toluene	601-021-00-3	203-625-9	108-88-3	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
30	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
Total:								0.0313 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00037%)

Classification of sample: WS30

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

Sample details

Sample Name:	LoW Code:	
WS30	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
29%		
(wet weight correction)		

Hazard properties

None identified

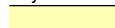



Determinands

Moisture content: 29% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		22 mg/kg	1.32	20.623 mg/kg	0.00206 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.365 mg/kg	0.0000284 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		39 mg/kg	1.462	40.47 mg/kg	0.00405 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		51 mg/kg	1.126	40.768 mg/kg	0.00408 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	97 mg/kg	1.56	107.424 mg/kg	0.00689 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		35 mg/kg	1.579	39.251 mg/kg	0.00393 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		120 mg/kg	1.245	106.05 mg/kg	0.0106 %	✓	
Total:								0.0322 %		



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

Classification of sample: WS32

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

Sample details

Sample Name:	LoW Code:	
WS32	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
29%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 29% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }				20	mg/kg	1.32	18.749	mg/kg	0.00187 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.365	mg/kg	0.0000284 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				38	mg/kg	1.462	39.433	mg/kg	0.00394 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				47	mg/kg	1.126	37.571	mg/kg	0.00376 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	100	mg/kg	1.56	110.747	mg/kg	0.0071 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.577	mg/kg	0.0000577 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				31	mg/kg	1.579	34.765	mg/kg	0.00348 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				100	mg/kg	1.245	88.375	mg/kg	0.00884 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		0.38 mg/kg		0.27 mg/kg	0.000027 %	✓	
15	fluorene	201-695-5	86-73-7		0.31 mg/kg		0.22 mg/kg	0.000022 %	✓	
16	phenanthrene	201-581-5	85-01-8		2.5 mg/kg		1.775 mg/kg	0.000177 %	✓	
17	anthracene	204-371-1	120-12-7		0.4 mg/kg		0.284 mg/kg	0.0000284 %	✓	
18	fluoranthene	205-912-4	206-44-0		3.2 mg/kg		2.272 mg/kg	0.000227 %	✓	
19	pyrene	204-927-3	129-00-0		2.5 mg/kg		1.775 mg/kg	0.000177 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	1.6 mg/kg		1.136 mg/kg	0.000114 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	1.5 mg/kg		1.065 mg/kg	0.000107 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1.7 mg/kg		1.207 mg/kg	0.000121 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.6 mg/kg		0.426 mg/kg	0.0000426 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.2 mg/kg		0.852 mg/kg	0.0000852 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.56 mg/kg		0.398 mg/kg	0.0000398 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.53 mg/kg		0.376 mg/kg	0.0000376 %	✓	
Total:								0.0308 %		

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



Classification of sample: TP23

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

Sample details

Sample Name: TP23	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	
Moisture content: 26% (wet weight correction)		17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 26% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	18.564 mg/kg	0.00186 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.38 mg/kg	0.0000296 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		36 mg/kg	1.462	38.936 mg/kg	0.00389 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		43 mg/kg	1.126	35.826 mg/kg	0.00358 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	82 mg/kg	1.56	94.65 mg/kg	0.00607 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.8 mg/kg	1.353	0.801 mg/kg	0.0000801 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		30 mg/kg	1.579	35.065 mg/kg	0.00351 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		94 mg/kg	1.245	86.582 mg/kg	0.00866 %	✓	
Total:								0.0282 %		



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



Classification of sample: TP27

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

Sample details

Sample Name: TP27	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 24% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 24% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	23 mg/kg	1.32	23.079 mg/kg	0.00231 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.5 mg/kg	1.285	0.488 mg/kg	0.000038 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	41 mg/kg	1.462	45.542 mg/kg	0.00455 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	55 mg/kg	1.126	47.062 mg/kg	0.00471 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	100 mg/kg	1.56	118.546 mg/kg	0.0076 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	36 mg/kg	1.579	43.215 mg/kg	0.00432 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	120 mg/kg	1.245	113.518 mg/kg	0.0114 %	✓	
12	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1	208-96-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.44 mg/kg		0.334 mg/kg	0.0000334 %	✓	
19	pyrene	204-927-3	129-00-0		0.44 mg/kg		0.334 mg/kg	0.0000334 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.36 mg/kg		0.274 mg/kg	0.0000274 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.25 mg/kg		0.19 mg/kg	0.000019 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.49 mg/kg		0.372 mg/kg	0.0000372 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.2 mg/kg		0.152 mg/kg	0.0000152 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.29 mg/kg		0.22 mg/kg	0.000022 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	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		<		<	<		ND
Total:								0.0356 %		

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



Classification of sample: WS19

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

Sample details

Sample Name:	LoW Code:	
WS19	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.80-1.00 m		
Moisture content:		
12%		
(wet weight correction)		

Hazard properties

None identified

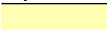



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH				7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }				9.4 mg/kg	1.32	10.922 mg/kg	0.00109 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	39.871 mg/kg	0.00399 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				20 mg/kg	1.126	19.816 mg/kg	0.00198 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	12 mg/kg	1.56	16.472 mg/kg	0.00106 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				33 mg/kg	1.579	45.869 mg/kg	0.00459 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				48 mg/kg	1.245	52.577 mg/kg	0.00526 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0185 %		



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



Classification of sample: WS24

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

Sample details

Sample Name:	LoW Code:	
WS24	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

Hazard properties

None identified

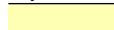



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		21 mg/kg	1.32	23.568 mg/kg	0.00236 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.437 mg/kg	0.000034 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	39.754 mg/kg	0.00398 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		41 mg/kg	1.126	39.237 mg/kg	0.00392 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	74 mg/kg	1.56	98.112 mg/kg	0.00629 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.69 mg/kg	0.000069 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	41.62 mg/kg	0.00416 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		98 mg/kg	1.245	103.685 mg/kg	0.0104 %	✓	
Total:								0.0317 %		



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



Classification of sample: WS27

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

Sample details

Sample Name:	LoW Code:	
WS27	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.40-0.60 m		
Moisture content:		
12%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.5 pH		7.5 pH	7.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		6.7 mg/kg	1.32	7.785 mg/kg	0.000778 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		40 mg/kg	1.462	51.447 mg/kg	0.00514 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		20 mg/kg	1.126	19.816 mg/kg	0.00198 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	14 mg/kg	1.56	19.217 mg/kg	0.00123 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		40 mg/kg	1.579	55.598 mg/kg	0.00556 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		52 mg/kg	1.245	56.958 mg/kg	0.0057 %	✓	
12	asbestos	650-013-00-6	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6		<		<	<		ND




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0209 %		

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

Classification of sample: WS28


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

Sample details

Sample Name:	LoW Code:	
WS28	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
12%		
(wet weight correction)		

Hazard properties

None identified

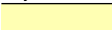



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	17.428 mg/kg	0.00174 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33 mg/kg	1.462	42.444 mg/kg	0.00424 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		39 mg/kg	1.126	38.64 mg/kg	0.00386 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	66 mg/kg	1.56	90.594 mg/kg	0.00581 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.715 mg/kg	0.0000715 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		28 mg/kg	1.579	38.919 mg/kg	0.00389 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		70 mg/kg	1.245	76.674 mg/kg	0.00767 %	✓	
Total:								0.0278 %		



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



Classification of sample: WS29

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

Sample details

Sample Name:	LoW Code:	
WS29	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.40 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	24 mg/kg	1.32	26.935 mg/kg	0.00269 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	36 mg/kg	1.462	44.724 mg/kg	0.00447 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	53 mg/kg	1.126	50.721 mg/kg	0.00507 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	85 mg/kg	1.56	112.697 mg/kg	0.00722 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.6 mg/kg	1.353	0.69 mg/kg	0.000069 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	36 mg/kg	1.579	48.333 mg/kg	0.00483 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	110 mg/kg	1.245	116.381 mg/kg	0.0116 %	✔	
Total:								0.0365 %		



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



Classification of sample: TP21

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

Sample details

Sample Name: TP21	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.7 pH		6.7 pH	6.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		7.5 mg/kg	1.32	8.219 mg/kg	0.000822 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33 mg/kg	1.462	40.032 mg/kg	0.004 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		13 mg/kg	1.126	12.148 mg/kg	0.00121 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	25 mg/kg	1.56	32.366 mg/kg	0.00208 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		23 mg/kg	1.579	30.153 mg/kg	0.00302 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		62 mg/kg	1.245	64.053 mg/kg	0.00641 %	✔	
Total:								0.0181 %		



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



Classification of sample: TP22

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

Sample details

Sample Name: TP22	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 15% (wet weight correction)		

Hazard properties

None identified

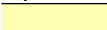



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.7 pH		5.7 pH	5.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	13 mg/kg	1.32	14.59 mg/kg	0.00146 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.3 mg/kg	1.285	0.328 mg/kg	0.0000255 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	27 mg/kg	1.462	33.543 mg/kg	0.00335 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	29 mg/kg	1.126	27.753 mg/kg	0.00278 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	57 mg/kg	1.56	75.573 mg/kg	0.00485 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.7 mg/kg	1.353	0.805 mg/kg	0.0000805 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	25 mg/kg	1.579	33.564 mg/kg	0.00336 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	75 mg/kg	1.245	79.351 mg/kg	0.00794 %	✔	
Total:								0.0243 %		



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

Classification of sample: TP25


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

Sample details

Sample Name:	LoW Code:	
TP25	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.80-1.00 m		
Moisture content:		
12%		
(wet weight correction)		

Hazard properties

None identified

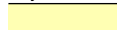



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		8 pH		8 pH	8pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		9.3 mg/kg	1.32	10.806 mg/kg	0.00108 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	45.016 mg/kg	0.0045 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		21 mg/kg	1.126	20.806 mg/kg	0.00208 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	13 mg/kg	1.56	17.844 mg/kg	0.00114 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		33 mg/kg	1.579	45.869 mg/kg	0.00459 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		49 mg/kg	1.245	53.672 mg/kg	0.00537 %	✓	
Total:								0.0193 %		



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

Classification of sample: TP26

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

Sample details

Sample Name: TP26	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.35 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 19% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.5 pH		5.5 pH	5.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	9.7 mg/kg	1.32	10.374 mg/kg	0.00104 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.2 mg/kg	1.285	0.208 mg/kg	0.0000162 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	22 mg/kg	1.462	26.045 mg/kg	0.0026 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	25 mg/kg	1.126	22.799 mg/kg	0.00228 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	46 mg/kg	1.56	58.119 mg/kg	0.00373 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.6 mg/kg	1.353	0.658 mg/kg	0.0000658 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	18 mg/kg	1.579	23.029 mg/kg	0.0023 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	57 mg/kg	1.245	57.468 mg/kg	0.00575 %	✓	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0183 %		

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



Classification of sample: TP28

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

Sample details

Sample Name:	LoW Code:	
TP28	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	17.032 mg/kg	0.0017 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.221 mg/kg	0.0000172 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30 mg/kg	1.462	37.708 mg/kg	0.00377 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				28 mg/kg	1.126	27.111 mg/kg	0.00271 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	58 mg/kg	1.56	77.804 mg/kg	0.00499 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				24 mg/kg	1.579	32.601 mg/kg	0.00326 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				64 mg/kg	1.245	68.509 mg/kg	0.00685 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0238 %		

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

Classification of sample: TP31


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

Sample details

Sample Name:	LoW Code:	
TP31	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	21.323 mg/kg	0.00213 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.5 mg/kg	1.285	0.546 mg/kg	0.0000425 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		38 mg/kg	1.462	47.208 mg/kg	0.00472 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		45 mg/kg	1.126	43.065 mg/kg	0.00431 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	87 mg/kg	1.56	115.348 mg/kg	0.0074 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.8 mg/kg	1.353	0.92 mg/kg	0.000092 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		34 mg/kg	1.579	45.648 mg/kg	0.00456 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		110 mg/kg	1.245	116.381 mg/kg	0.0116 %	✓	
12	asbestos	650-013-00-6	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6		<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0354 %		

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



Classification of sample: TP32

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

Sample details

Sample Name: TP32	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 25% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 25% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	14 mg/kg	1.32	13.863 mg/kg	0.00139 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.4 mg/kg	1.285	0.386 mg/kg	0.00003 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	31 mg/kg	1.462	33.981 mg/kg	0.0034 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	40 mg/kg	1.126	33.777 mg/kg	0.00338 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	76 mg/kg	1.56	88.909 mg/kg	0.0057 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.8 mg/kg	1.353	0.812 mg/kg	0.0000812 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	29 mg/kg	1.579	34.354 mg/kg	0.00344 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	100 mg/kg	1.245	93.354 mg/kg	0.00934 %	✔	
Total:								0.0272 %		



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



Classification of sample: TP33

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

Sample details

Sample Name: TP33	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		22 mg/kg	1.32	24.4 mg/kg	0.00244 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.5 mg/kg	1.285	0.54 mg/kg	0.000042 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	42.97 mg/kg	0.0043 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		72 mg/kg	1.126	68.094 mg/kg	0.00681 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	100 mg/kg	1.56	131.024 mg/kg	0.0084 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.7 mg/kg	1.353	0.796 mg/kg	0.0000796 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		32 mg/kg	1.579	42.457 mg/kg	0.00425 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		110 mg/kg	1.245	115.012 mg/kg	0.0115 %	✓	
Total:								0.0383 %		



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



Classification of sample: TP35

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

Sample details

Sample Name: TP35	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }				20 mg/kg	1.32	21.917 mg/kg	0.00219 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.427 mg/kg	0.0000332 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33 mg/kg	1.462	40.032 mg/kg	0.004 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				45 mg/kg	1.126	42.052 mg/kg	0.00421 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	85 mg/kg	1.56	110.045 mg/kg	0.00705 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.8 mg/kg	1.353	0.899 mg/kg	0.0000899 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				29 mg/kg	1.579	38.019 mg/kg	0.0038 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				92 mg/kg	1.245	95.046 mg/kg	0.0095 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0314 %		



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



Classification of sample: TP38

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

Sample details

Sample Name: TP38	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.3 pH		5.3 pH	5.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		17 mg/kg	1.32	19.303 mg/kg	0.00193 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33 mg/kg	1.462	41.479 mg/kg	0.00415 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		44 mg/kg	1.126	42.604 mg/kg	0.00426 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	85 mg/kg	1.56	114.022 mg/kg	0.00731 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		29 mg/kg	1.579	39.393 mg/kg	0.00394 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		99 mg/kg	1.245	105.975 mg/kg	0.0106 %	✔	
Total:								0.0327 %		



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

Classification of sample: TP39


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

Sample details

Sample Name:	LoW Code:	
TP39	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.7 pH		5.7 pH	5.7 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	16.834 mg/kg	0.00168 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.218 mg/kg	0.000017 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	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							
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	29.667 mg/kg	0.00297 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	50 mg/kg	1.56	66.292 mg/kg	0.00425 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				24 mg/kg	1.579	32.222 mg/kg	0.00322 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				57 mg/kg	1.245	60.306 mg/kg	0.00603 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0221 %		



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



Classification of sample: TP40

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

Sample details

Sample Name: TP40	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	
Moisture content: 15% (wet weight correction)		17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

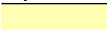



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	16.834 mg/kg	0.00168 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.328 mg/kg	0.0000255 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		30 mg/kg	1.462	37.27 mg/kg	0.00373 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		47 mg/kg	1.126	44.979 mg/kg	0.0045 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	81 mg/kg	1.56	107.393 mg/kg	0.00689 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.8 mg/kg	1.353	0.92 mg/kg	0.000092 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		28 mg/kg	1.579	37.592 mg/kg	0.00376 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		97 mg/kg	1.245	102.627 mg/kg	0.0103 %	✓	
Total:								0.0314 %		



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

Classification of sample: WS140


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

Sample details

Sample Name: WS140 Sample Depth: 0.35-1.20 m Moisture content: 14% (wet weight correction)	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
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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
	CLP index number	EC Number	CAS Number							
1	pH				6.9 pH		6.9 pH	6.9 pH		
2	arsenic { arsenic trioxide }				9.9 mg/kg	1.32	11.241 mg/kg	0.00112 %	✓	
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				43 mg/kg	1.462	54.048 mg/kg	0.0054 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				21 mg/kg	1.126	20.334 mg/kg	0.00203 %	✓	
7	lead { lead chromate }			1	18 mg/kg	1.56	24.146 mg/kg	0.00155 %	✓	
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.000406 %		<LOD
9	nickel { nickel dihydroxide }				48 mg/kg	1.579	65.202 mg/kg	0.00652 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				56 mg/kg	1.245	59.945 mg/kg	0.00599 %	✓	
Total:								0.0232 %		



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

Classification of sample: WS02

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

Sample details

Sample Name:	LoW Code:	
WS02	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.40 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	22.327 mg/kg	0.00223 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.458 mg/kg	0.0000356 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		29 mg/kg	1.462	37.723 mg/kg	0.00377 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		48 mg/kg	1.126	48.098 mg/kg	0.00481 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	82 mg/kg	1.56	113.835 mg/kg	0.0073 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.723 mg/kg	0.0000723 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		22 mg/kg	1.579	30.927 mg/kg	0.00309 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		76 mg/kg	1.245	84.192 mg/kg	0.00842 %	✓	
Total:								0.0302 %		



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



Classification of sample: WS03

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

Sample details

Sample Name:	LoW Code:	
WS03	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.30-0.65 m		
Moisture content:		
14%		
(wet weight correction)		

Hazard properties

None identified

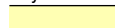



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.5 pH		7.5 pH	7.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		9.1 mg/kg	1.32	10.333 mg/kg	0.00103 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		31 mg/kg	1.462	38.965 mg/kg	0.0039 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		17 mg/kg	1.126	16.46 mg/kg	0.00165 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	13 mg/kg	1.56	17.439 mg/kg	0.00112 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		35 mg/kg	1.579	47.543 mg/kg	0.00475 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		47 mg/kg	1.245	50.311 mg/kg	0.00503 %	✔	
Total:								0.018 %		



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



Classification of sample: WS05

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

Sample details

Sample Name:	LoW Code:	
WS05	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
16%		
(wet weight correction)		

Hazard properties

None identified

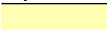



Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	16.636 mg/kg	0.00166 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.324 mg/kg	0.0000252 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		31 mg/kg	1.462	38.059 mg/kg	0.00381 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		35 mg/kg	1.126	33.101 mg/kg	0.00331 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	49 mg/kg	1.56	64.202 mg/kg	0.00412 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.682 mg/kg	0.0000682 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		24 mg/kg	1.579	31.843 mg/kg	0.00318 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		77 mg/kg	1.245	80.508 mg/kg	0.00805 %	✓	
Total:								0.0247 %		



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



Classification of sample: WS06

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

Sample details

Sample Name:	LoW Code:	
WS06	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number							
1	pH				6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }				10 mg/kg	1.32	11.751 mg/kg	0.00118 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.229 mg/kg	0.0000178 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				20 mg/kg	1.462	26.016 mg/kg	0.0026 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				27 mg/kg	1.126	27.055 mg/kg	0.00271 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	42 mg/kg	1.56	58.306 mg/kg	0.00374 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.602 mg/kg	0.0000602 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				15 mg/kg	1.579	21.086 mg/kg	0.00211 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				56 mg/kg	1.245	62.037 mg/kg	0.0062 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0191 %		



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

Classification of sample: WS07

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

Sample details

Sample Name:	LoW Code:	
WS07	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.37 m		
Moisture content:		
12%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.2 pH		6.2 pH	6.2 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	16.266 mg/kg	0.00163 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.339 mg/kg	0.0000264 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		28 mg/kg	1.462	36.013 mg/kg	0.0036 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		28 mg/kg	1.126	27.742 mg/kg	0.00277 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	44 mg/kg	1.56	60.396 mg/kg	0.00387 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.596 mg/kg	0.0000596 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		23 mg/kg	1.579	31.969 mg/kg	0.0032 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		63 mg/kg	1.245	69.007 mg/kg	0.0069 %	✔	
Total:								0.0225 %		



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

Classification of sample: WS12


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

Sample details

Sample Name:	LoW Code:	
WS12	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.40 m		
Moisture content:		
16%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	15.527 mg/kg	0.00155 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.432 mg/kg	0.0000336 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		27 mg/kg	1.462	33.148 mg/kg	0.00331 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		38 mg/kg	1.126	35.938 mg/kg	0.00359 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	62 mg/kg	1.56	81.235 mg/kg	0.00521 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.9 mg/kg	1.353	1.023 mg/kg	0.000102 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		20 mg/kg	1.579	26.536 mg/kg	0.00265 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		84 mg/kg	1.245	87.827 mg/kg	0.00878 %	✓	
Total:								0.0257 %		



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



Classification of sample: WS14

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

Sample details

Sample Name:	LoW Code:	
WS14	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.35 m		
Moisture content:		
17%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.8	pH		5.8	pH	5.8 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	18.63	mg/kg	0.00186 %	✔	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.427	mg/kg	0.0000332 %	✔	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				25	mg/kg	1.462	30.327	mg/kg	0.00303 %	✔	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				40	mg/kg	1.126	37.379	mg/kg	0.00374 %	✔	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	74	mg/kg	1.56	95.804	mg/kg	0.00614 %	✔	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.8	mg/kg	1.353	0.899	mg/kg	0.0000899 %	✔	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				20	mg/kg	1.579	26.22	mg/kg	0.00262 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				84	mg/kg	1.245	86.781	mg/kg	0.00868 %	✔	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0267 %		



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

Classification of sample: BH04


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

Sample details

Sample Name:	BH04	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	12%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	15.105 mg/kg	0.00151 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		30 mg/kg	1.462	38.585 mg/kg	0.00386 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		24 mg/kg	1.126	23.779 mg/kg	0.00238 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	55 mg/kg	1.56	75.495 mg/kg	0.00484 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		18 mg/kg	1.579	25.019 mg/kg	0.0025 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		59 mg/kg	1.245	64.626 mg/kg	0.00646 %	✓	
Total:								0.0221 %		



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



Classification of sample: TP01

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

Sample details

Sample Name:	LoW Code:	
TP01	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
18%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	15.157 mg/kg	0.00152 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.422 mg/kg	0.0000328 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	38.351 mg/kg	0.00384 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		51 mg/kg	1.126	47.085 mg/kg	0.00471 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	70 mg/kg	1.56	89.533 mg/kg	0.00574 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.8 mg/kg	1.353	0.888 mg/kg	0.0000888 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		23 mg/kg	1.579	29.789 mg/kg	0.00298 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		98 mg/kg	1.245	100.025 mg/kg	0.01 %	✔	
Total:								0.0294 %		



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

Classification of sample: TP02

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

Sample details

Sample Name: TP02	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	
Moisture content: 15% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17 mg/kg	1.32	19.079 mg/kg	0.00191 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.5 mg/kg	1.285	0.546 mg/kg	0.0000425 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	33 mg/kg	1.462	40.997 mg/kg	0.0041 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	53 mg/kg	1.126	50.721 mg/kg	0.00507 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	95 mg/kg	1.56	125.955 mg/kg	0.00808 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.7 mg/kg	1.353	0.805 mg/kg	0.0000805 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	24 mg/kg	1.579	32.222 mg/kg	0.00322 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	110 mg/kg	1.245	116.381 mg/kg	0.0116 %	✓	
Total:								0.0346 %		



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

Classification of sample: TP06


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

Sample details

Sample Name:	LoW Code:	
TP06	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
20%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		18 mg/kg	1.32	19.013 mg/kg	0.0019 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.411 mg/kg	0.000032 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		36 mg/kg	1.462	42.093 mg/kg	0.00421 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		44 mg/kg	1.126	39.631 mg/kg	0.00396 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	81 mg/kg	1.56	101.076 mg/kg	0.00648 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		25 mg/kg	1.579	31.59 mg/kg	0.00316 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		100 mg/kg	1.245	99.577 mg/kg	0.00996 %	✓	
Total:								0.0302 %		



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

Classification of sample: TP11

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

Sample details

Sample Name: TP11	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	15.276 mg/kg	0.00153 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.229 mg/kg	0.0000178 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		30 mg/kg	1.462	39.024 mg/kg	0.0039 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		27 mg/kg	1.126	27.055 mg/kg	0.00271 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	42 mg/kg	1.56	58.306 mg/kg	0.00374 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		24 mg/kg	1.579	33.738 mg/kg	0.00337 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		72 mg/kg	1.245	79.761 mg/kg	0.00798 %	✓	
Total:								0.0238 %		



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



Classification of sample: TP13

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

Sample details

Sample Name: TP13	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.80-1.00 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

Hazard properties

None identified

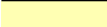



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.5 pH		6.5 pH	6.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	7.6 mg/kg	1.32	8.63 mg/kg	0.000863 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	36 mg/kg	1.462	45.25 mg/kg	0.00452 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	17 mg/kg	1.126	16.46 mg/kg	0.00165 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	12 mg/kg	1.56	16.097 mg/kg	0.00103 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	37 mg/kg	1.579	50.26 mg/kg	0.00503 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	51 mg/kg	1.245	54.593 mg/kg	0.00546 %	✔	
Total:								0.0191 %		



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



Classification of sample: TP15

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

Sample details

Sample Name: TP15	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		9.7 mg/kg	1.32	10.63 mg/kg	0.00106 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		24 mg/kg	1.462	29.114 mg/kg	0.00291 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		25 mg/kg	1.126	23.362 mg/kg	0.00234 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	25 mg/kg	1.56	32.366 mg/kg	0.00208 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		14 mg/kg	1.579	18.354 mg/kg	0.00184 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		58 mg/kg	1.245	59.921 mg/kg	0.00599 %	✔	
Total:								0.0168 %		



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

Classification of sample: TP17


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

Sample details

Sample Name:	LoW Code:	
TP17	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
20%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	15.844 mg/kg	0.00158 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.308 mg/kg	0.000024 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33 mg/kg	1.462	38.585 mg/kg	0.00386 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		31 mg/kg	1.126	27.922 mg/kg	0.00279 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	48 mg/kg	1.56	59.897 mg/kg	0.00384 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		24 mg/kg	1.579	30.326 mg/kg	0.00303 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		68 mg/kg	1.245	67.712 mg/kg	0.00677 %	✓	
Total:								0.0224 %		



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



Classification of sample: TP18

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

Sample details

Sample Name: TP18	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	
Moisture content: 19% (wet weight correction)		17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	13.903 mg/kg	0.00139 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.312 mg/kg	0.0000243 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				29 mg/kg	1.462	34.332 mg/kg	0.00343 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				28 mg/kg	1.126	25.535 mg/kg	0.00255 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	43 mg/kg	1.56	54.328 mg/kg	0.00348 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				21 mg/kg	1.579	26.867 mg/kg	0.00269 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				65 mg/kg	1.245	65.534 mg/kg	0.00655 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0207 %		



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



Classification of sample: WS127

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

Sample details

Sample Name:	LoW Code:	
WS127	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	14.761 mg/kg	0.00148 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35 mg/kg	1.462	43.993 mg/kg	0.0044 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	30.984 mg/kg	0.0031 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	50 mg/kg	1.56	67.072 mg/kg	0.0043 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				31 mg/kg	1.579	42.109 mg/kg	0.00421 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				140 mg/kg	1.245	149.864 mg/kg	0.015 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.033 %		



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



Classification of sample: TP170

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

Sample details

Sample Name: TP170	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.52 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 31% (wet weight correction)		

Hazard properties

None identified

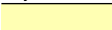



Determinands

Moisture content: 31% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		6 mg/kg	1.32	5.466 mg/kg	0.000547 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		30 mg/kg	1.462	30.254 mg/kg	0.00303 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		20 mg/kg	1.126	15.537 mg/kg	0.00155 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	13 mg/kg	1.56	13.992 mg/kg	0.000897 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		25 mg/kg	1.579	27.246 mg/kg	0.00272 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		35 mg/kg	1.245	30.06 mg/kg	0.00301 %	✓	
Total:								0.0123 %		



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



Classification of sample: TP171

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

Sample details

Sample Name:	LoW Code:	
TP171	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.60 m		
Moisture content:		
36%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 36% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.7	pH		6.7	pH	6.7 pH		
2	arsenic { arsenic trioxide }				13	mg/kg	1.32	10.985	mg/kg	0.0011 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.329	mg/kg	0.0000256 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39	mg/kg	1.462	36.48	mg/kg	0.00365 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				46	mg/kg	1.126	33.146	mg/kg	0.00331 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	33	mg/kg	1.56	32.943	mg/kg	0.00211 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				33	mg/kg	1.579	33.359	mg/kg	0.00334 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				63	mg/kg	1.245	50.187	mg/kg	0.00502 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0191 %		

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

Classification of sample: TP172


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

Sample details

Sample Name:	LoW Code:	
TP172	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.36 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.7 pH		7.7 pH	7.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	15.712 mg/kg	0.00157 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.9 mg/kg	1.285	0.983 mg/kg	0.0000765 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	39.754 mg/kg	0.00398 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		95 mg/kg	1.126	90.915 mg/kg	0.00909 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	55 mg/kg	1.56	72.921 mg/kg	0.00468 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		36 mg/kg	1.579	48.333 mg/kg	0.00483 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		130 mg/kg	1.245	137.541 mg/kg	0.0138 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		0.26 mg/kg		0.221 mg/kg	0.0000221 %	✓	




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene	201-469-6	83-32-9		0.2 mg/kg		0.17 mg/kg	0.000017 %	✓	
15	• fluorene	201-695-5	86-73-7		0.25 mg/kg		0.213 mg/kg	0.0000212 %	✓	
16	• phenanthrene	201-581-5	85-01-8		1.5 mg/kg		1.275 mg/kg	0.000127 %	✓	
17	• anthracene	204-371-1	120-12-7		0.53 mg/kg		0.451 mg/kg	0.0000451 %	✓	
18	• fluoranthene	205-912-4	206-44-0		4.6 mg/kg		3.91 mg/kg	0.000391 %	✓	
19	• pyrene	204-927-3	129-00-0		4.1 mg/kg		3.485 mg/kg	0.000349 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	2.9 mg/kg		2.465 mg/kg	0.000246 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	2.1 mg/kg		1.785 mg/kg	0.000179 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	4.3 mg/kg		3.655 mg/kg	0.000366 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.98 mg/kg		0.833 mg/kg	0.0000833 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	3.1 mg/kg		2.635 mg/kg	0.000263 %	✓	
25	• indeno[123-cd]pyrene	205-893-2	193-39-5		1.8 mg/kg		1.53 mg/kg	0.000153 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.43 mg/kg		0.366 mg/kg	0.0000366 %	✓	
27	• benzo[ghi]perylene	205-883-8	191-24-2		2.2 mg/kg		1.87 mg/kg	0.000187 %	✓	
Total:								0.041 %		

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

Classification of sample: TP173


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

Sample details

Sample Name:	LoW Code:	
TP173	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.19 m		
Moisture content:		
21%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		12 mg/kg	1.32	12.517 mg/kg	0.00125 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.406 mg/kg	0.0000316 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	36.948 mg/kg	0.00369 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		40 mg/kg	1.126	35.578 mg/kg	0.00356 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	52 mg/kg	1.56	64.077 mg/kg	0.00411 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		26 mg/kg	1.579	32.443 mg/kg	0.00324 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		120 mg/kg	1.245	117.999 mg/kg	0.0118 %	✓	
Total:								0.0282 %		



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

Classification of sample: TP174


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

Sample details

Sample Name:	LoW Code:	
TP174	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
20%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.9 pH		6.9 pH	6.9 pH		
2	arsenic { arsenic trioxide }				14 mg/kg	1.32	14.788 mg/kg	0.00148 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.411 mg/kg	0.000032 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	42.093 mg/kg	0.00421 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				59 mg/kg	1.126	53.142 mg/kg	0.00531 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	52 mg/kg	1.56	64.888 mg/kg	0.00416 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				31 mg/kg	1.579	39.172 mg/kg	0.00392 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				130 mg/kg	1.245	129.45 mg/kg	0.0129 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0326 %		



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



Classification of sample: WS35

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

Sample details

Sample Name:	LoW Code:	
WS35	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	16.834 mg/kg	0.00168 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.328 mg/kg	0.0000255 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		42 mg/kg	1.462	52.178 mg/kg	0.00522 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		46 mg/kg	1.126	44.022 mg/kg	0.0044 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	51 mg/kg	1.56	67.618 mg/kg	0.00434 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		1.1 mg/kg	1.353	1.266 mg/kg	0.000127 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		35 mg/kg	1.579	46.99 mg/kg	0.0047 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		71 mg/kg	1.245	75.118 mg/kg	0.00751 %	✓	
Total:								0.0285 %		



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



Classification of sample: WS36

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

Sample details

Sample Name:	LoW Code:	
WS36	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				20 mg/kg	1.32	22.71 mg/kg	0.00227 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				44 mg/kg	1.462	55.305 mg/kg	0.00553 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				49 mg/kg	1.126	47.445 mg/kg	0.00474 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	80 mg/kg	1.56	107.315 mg/kg	0.00688 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.698 mg/kg	0.0000698 %	✔	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				39 mg/kg	1.579	52.976 mg/kg	0.0053 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				96 mg/kg	1.245	102.764 mg/kg	0.0103 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0356 %		



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



Classification of sample: WS37

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

Sample details

Sample Name:	LoW Code:	
WS37	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.3 pH		5.3 pH	5.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	15.712 mg/kg	0.00157 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.218 mg/kg	0.000017 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		43 mg/kg	1.462	53.42 mg/kg	0.00534 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		37 mg/kg	1.126	35.409 mg/kg	0.00354 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	76 mg/kg	1.56	100.764 mg/kg	0.00646 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	41.62 mg/kg	0.00416 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		75 mg/kg	1.245	79.351 mg/kg	0.00794 %	✓	
12	asbestos	650-013-00-6	-----		<		<	<		ND




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0296 %		

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

Classification of sample: WS39


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

Sample details

Sample Name:	LoW Code:	
WS39	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
17%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.3 pH		5.3 pH	5.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		17 mg/kg	1.32	18.63 mg/kg	0.00186 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.32 mg/kg	0.0000249 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		43 mg/kg	1.462	52.163 mg/kg	0.00522 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		39 mg/kg	1.126	36.445 mg/kg	0.00364 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	66 mg/kg	1.56	85.447 mg/kg	0.00548 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		36 mg/kg	1.579	47.195 mg/kg	0.00472 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		99 mg/kg	1.245	102.278 mg/kg	0.0102 %	✓	
12	asbestos	650-013-00-6	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6		<		<	<		ND

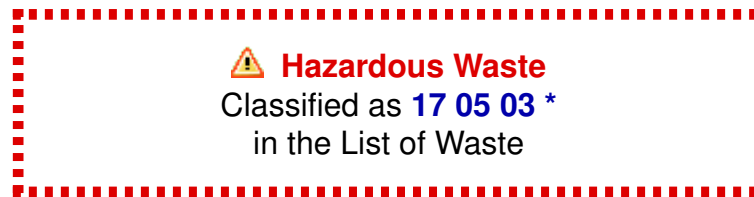


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0317 %		

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

Classification of sample: WS42



Sample details

Sample Name:	LoW Code:	
WS42	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 03 * (Soil and stones containing hazardous substances)
0.25-0.45 m		
Moisture content:		
15%		
(wet weight correction)		

Hazard properties

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00128%)

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
	CLP index number	EC Number	CAS Number							
1	pH				6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }				5.7 mg/kg	1.32	6.397 mg/kg	0.00064 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				7.8 mg/kg	1.923	12.75 mg/kg	0.00128 %	✓	
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39 mg/kg	1.462	48.451 mg/kg	0.00485 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				20 mg/kg	1.126	19.14 mg/kg	0.00191 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	15 mg/kg	1.56	19.888 mg/kg	0.00128 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				34 mg/kg	1.579	45.648 mg/kg	0.00456 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				43 mg/kg	1.245	45.494 mg/kg	0.00455 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	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								
Total:								0.0194 %		

Key

- User supplied data
- Determinand values ignored for classification, see column 'Conc. Not Used' for reason
- Hazardous result
- 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



Classification of sample: WS43

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

Sample details

Sample Name:	LoW Code:	
WS43	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
22%		
(wet weight correction)		

Hazard properties

None identified

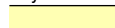



Determinands

Moisture content: 22% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.5 pH		5.5 pH	5.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	15.448 mg/kg	0.00154 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.301 mg/kg	0.0000234 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		46 mg/kg	1.462	52.441 mg/kg	0.00524 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		45 mg/kg	1.126	39.519 mg/kg	0.00395 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	76 mg/kg	1.56	92.466 mg/kg	0.00593 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		33 mg/kg	1.579	40.656 mg/kg	0.00407 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		89 mg/kg	1.245	86.408 mg/kg	0.00864 %	✔	
Total:								0.0299 %		



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

Classification of sample: WS45


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

Sample details

Sample Name: WS45 Sample Depth: 0.00-0.30 m Moisture content: 11% (wet weight correction)	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
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Hazard properties

None identified

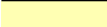



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH				5.5 pH		5.5 pH	5.5 pH		
2	arsenic { arsenic trioxide }				16 mg/kg	1.32	18.801 mg/kg	0.00188 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.343 mg/kg	0.0000267 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				44 mg/kg	1.462	57.235 mg/kg	0.00572 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	29.059 mg/kg	0.00291 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	55 mg/kg	1.56	76.353 mg/kg	0.0049 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				22 mg/kg	1.579	30.927 mg/kg	0.00309 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				68 mg/kg	1.245	75.33 mg/kg	0.00753 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0266 %		



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

Classification of sample: WS47

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

Sample details

Sample Name:	LoW Code:	
WS47	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

Hazard properties

None identified

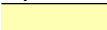



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	14 mg/kg	1.32	15.712 mg/kg	0.00157 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.2 mg/kg	1.285	0.218 mg/kg	0.000017 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	39 mg/kg	1.462	48.451 mg/kg	0.00485 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	33 mg/kg	1.126	31.581 mg/kg	0.00316 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	97 mg/kg	1.56	128.607 mg/kg	0.00825 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	24 mg/kg	1.579	32.222 mg/kg	0.00322 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	130 mg/kg	1.245	137.541 mg/kg	0.0138 %	✓	
Total:								0.0353 %		



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



Classification of sample: CP04

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

Sample details

Sample Name:	LoW Code:	
CP04	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		12 mg/kg	1.32	14.101 mg/kg	0.00141 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.229 mg/kg	0.0000178 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		30 mg/kg	1.462	39.024 mg/kg	0.0039 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		31 mg/kg	1.126	31.063 mg/kg	0.00311 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	48 mg/kg	1.56	66.635 mg/kg	0.00427 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		25 mg/kg	1.579	35.144 mg/kg	0.00351 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		68 mg/kg	1.245	75.33 mg/kg	0.00753 %	✓	
Total:								0.0243 %		



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



Classification of sample: TP41

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

Sample details

Sample Name: TP41	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 10% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		16 mg/kg	1.32	19.013 mg/kg	0.0019 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.347 mg/kg	0.000027 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		30 mg/kg	1.462	39.462 mg/kg	0.00395 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		36 mg/kg	1.126	36.479 mg/kg	0.00365 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	59 mg/kg	1.56	82.826 mg/kg	0.00531 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		24 mg/kg	1.579	34.117 mg/kg	0.00341 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		89 mg/kg	1.245	99.702 mg/kg	0.00997 %	✔	
Total:								0.0287 %		



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



Classification of sample: TP43

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

Sample details

Sample Name: TP43	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		18 mg/kg	1.32	20.439 mg/kg	0.00204 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		50 mg/kg	1.462	62.847 mg/kg	0.00628 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		40 mg/kg	1.126	38.731 mg/kg	0.00387 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	70 mg/kg	1.56	93.901 mg/kg	0.00602 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		37 mg/kg	1.579	50.26 mg/kg	0.00503 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		97 mg/kg	1.245	103.834 mg/kg	0.0104 %	✔	
Total:								0.0342 %		



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



Classification of sample: TP45

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

Sample details

Sample Name: TP45	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		18 mg/kg	1.32	19.726 mg/kg	0.00197 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.427 mg/kg	0.0000332 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		46 mg/kg	1.462	55.802 mg/kg	0.00558 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		69 mg/kg	1.126	64.48 mg/kg	0.00645 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	66 mg/kg	1.56	85.447 mg/kg	0.00548 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		34 mg/kg	1.579	44.573 mg/kg	0.00446 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		100 mg/kg	1.245	103.311 mg/kg	0.0103 %	✔	
Total:								0.0348 %		



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



Classification of sample: TP49

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

Sample details

Sample Name:	LoW Code:	
TP49	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.60-0.70 m		
Moisture content:		
15%		
(wet weight correction)		

Hazard properties

None identified

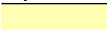



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH				7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }				4.7 mg/kg	1.32	5.275 mg/kg	0.000527 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				48 mg/kg	1.462	59.631 mg/kg	0.00596 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				84 mg/kg	1.126	80.388 mg/kg	0.00804 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	14 mg/kg	1.56	18.562 mg/kg	0.00119 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				40 mg/kg	1.579	53.703 mg/kg	0.00537 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				72 mg/kg	1.245	76.176 mg/kg	0.00762 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<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]							
Total:								0.0294 %		



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

Classification of sample: TP50


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

Sample details

Sample Name:	LoW Code:	
TP50	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				7.8	pH		7.8	pH	7.8 pH		
2	arsenic { arsenic trioxide }				6.8	mg/kg	1.32	7.721	mg/kg	0.000772 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42	mg/kg	1.462	52.791	mg/kg	0.00528 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				22	mg/kg	1.126	21.302	mg/kg	0.00213 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	12	mg/kg	1.56	16.097	mg/kg	0.00103 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				40	mg/kg	1.579	54.335	mg/kg	0.00543 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				53	mg/kg	1.245	56.734	mg/kg	0.00567 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0209 %		

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



Classification of sample: TP51

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

Sample details

Sample Name: TP51	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	● pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	10	mg/kg	1.32	11.487	mg/kg	0.00115 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.2	mg/kg	1.285	0.224	mg/kg	0.0000174 %	✓
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		2.1	mg/kg	1.923	3.514	mg/kg	0.000351 %	✓
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		42	mg/kg	1.462	53.405	mg/kg	0.00534 %	✓
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		31	mg/kg	1.126	30.365	mg/kg	0.00304 %	✓
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	26	mg/kg	1.56	35.283	mg/kg	0.00226 %	✓
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.6	mg/kg	1.353	0.707	mg/kg	0.0000707 %	✓
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		35	mg/kg	1.579	48.096	mg/kg	0.00481 %	✓
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %	<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		54	mg/kg	1.245	58.477	mg/kg	0.00585 %	✓
12	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %	<LOD
13	acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	benzene	601-020-00-8	200-753-7	71-43-2	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
29	toluene	601-021-00-3	203-625-9	108-88-3	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
30	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
Total:								0.0235 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00035%)



Classification of sample: TP52

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

Sample details

Sample Name: TP52	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	
Moisture content: 13% (wet weight correction)		

Hazard properties

None identified

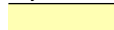



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.3 pH		5.3 pH	5.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		26 mg/kg	1.32	29.866 mg/kg	0.00299 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		47 mg/kg	1.462	59.763 mg/kg	0.00598 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		62 mg/kg	1.126	60.73 mg/kg	0.00607 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	88 mg/kg	1.56	119.419 mg/kg	0.00766 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		46 mg/kg	1.579	63.212 mg/kg	0.00632 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		100 mg/kg	1.245	108.29 mg/kg	0.0108 %	✓	
Total:								0.0404 %		



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



Classification of sample: TP53

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

Sample details

Sample Name: TP53	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	15 mg/kg	1.32	17.032 mg/kg	0.0017 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	2.2 mg/kg	1.923	3.639 mg/kg	0.000364 %	✔	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	34 mg/kg	1.462	42.736 mg/kg	0.00427 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	35 mg/kg	1.126	33.889 mg/kg	0.00339 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	22 mg/kg	1.56	29.512 mg/kg	0.00189 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	33 mg/kg	1.579	44.826 mg/kg	0.00448 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	49 mg/kg	1.245	52.452 mg/kg	0.00525 %	✔	
Total:								0.0217 %		



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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00036%)



Classification of sample: TP54

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

Sample details

Sample Name: TP54	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

Hazard properties

None identified

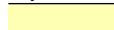



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		20 mg/kg	1.32	22.974 mg/kg	0.0023 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.224 mg/kg	0.0000174 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		45 mg/kg	1.462	57.22 mg/kg	0.00572 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		47 mg/kg	1.126	46.038 mg/kg	0.0046 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	77 mg/kg	1.56	104.492 mg/kg	0.0067 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.7 mg/kg	1.353	0.824 mg/kg	0.0000824 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		41 mg/kg	1.579	56.341 mg/kg	0.00563 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		61 mg/kg	1.245	66.057 mg/kg	0.00661 %	✓	
Total:								0.0321 %		



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



Classification of sample: TP57

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

Sample details

Sample Name: TP57	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

Hazard properties

None identified

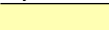



Determinands

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
	CLP index number	EC Number	CAS Number							
1	• pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		16 mg/kg	1.32	18.168 mg/kg	0.00182 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		39 mg/kg	1.462	49.021 mg/kg	0.0049 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		41 mg/kg	1.126	39.699 mg/kg	0.00397 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	72 mg/kg	1.56	96.584 mg/kg	0.00619 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		29 mg/kg	1.579	39.393 mg/kg	0.00394 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		80 mg/kg	1.245	85.636 mg/kg	0.00856 %	✓	
Total:								0.0299 %		



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

Classification of sample: TP58


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

Sample details

Sample Name:	LoW Code:	
TP58	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		8.8 mg/kg	1.32	10.108 mg/kg	0.00101 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		2.4 mg/kg	1.923	4.015 mg/kg	0.000402 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		28 mg/kg	1.462	35.603 mg/kg	0.00356 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		16 mg/kg	1.126	15.672 mg/kg	0.00157 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	27 mg/kg	1.56	36.64 mg/kg	0.00235 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		22 mg/kg	1.579	30.232 mg/kg	0.00302 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		39 mg/kg	1.245	42.233 mg/kg	0.00422 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0165 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.0004%)

Classification of sample: SA03

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

Sample details

Sample Name: SA03	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.5 pH		5.5 pH	5.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17 mg/kg	1.32	19.528 mg/kg	0.00195 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	39 mg/kg	1.462	49.591 mg/kg	0.00496 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	39 mg/kg	1.126	38.201 mg/kg	0.00382 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	63 mg/kg	1.56	85.493 mg/kg	0.00548 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	34 mg/kg	1.579	46.722 mg/kg	0.00467 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	88 mg/kg	1.245	95.295 mg/kg	0.00953 %	✓	
12	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1	208-96-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.031 %		

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

Classification of sample: SA03[2]


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

Sample details

Sample Name:	LoW Code:	
SA03[2]	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.90-1.00 m		
Moisture content:		
18%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.8	pH		6.8	pH	6.8 pH		
2	arsenic { arsenic trioxide }				5.2	mg/kg	1.32	5.63	mg/kg	0.000563 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				62	mg/kg	1.462	74.305	mg/kg	0.00743 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				30	mg/kg	1.126	27.697	mg/kg	0.00277 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	17	mg/kg	1.56	21.744	mg/kg	0.00139 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				56	mg/kg	1.579	72.531	mg/kg	0.00725 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				82	mg/kg	1.245	83.695	mg/kg	0.00837 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0284 %		

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



Classification of sample: TP61

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

Sample details

Sample Name: TP61	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.5	pH		6.5	pH	6.5 pH		
2	arsenic { arsenic trioxide }				23	mg/kg	1.32	25.509	mg/kg	0.00255 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				34	mg/kg	1.462	41.742	mg/kg	0.00417 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				66	mg/kg	1.126	62.419	mg/kg	0.00624 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	91	mg/kg	1.56	119.232	mg/kg	0.00764 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.568	mg/kg	0.0000568 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				35	mg/kg	1.579	46.437	mg/kg	0.00464 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				83	mg/kg	1.245	86.781	mg/kg	0.00868 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0345 %		

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



Classification of sample: TP63

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

Sample details

Sample Name: TP63	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.45 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 4.7% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 4.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		62 mg/kg	1.32	78.013 mg/kg	0.0078 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		34 mg/kg	1.462	47.357 mg/kg	0.00474 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		140 mg/kg	1.126	150.216 mg/kg	0.015 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	420 mg/kg	1.56	624.332 mg/kg	0.04 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		90 mg/kg	1.579	135.474 mg/kg	0.0135 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		170 mg/kg	1.245	201.656 mg/kg	0.0202 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		0.21 mg/kg		0.2 mg/kg	0.00002 %	✓	
16	phenanthrene	201-581-5	85-01-8		2 mg/kg		1.906 mg/kg	0.000191 %	✓	
17	anthracene	204-371-1	120-12-7		0.41 mg/kg		0.391 mg/kg	0.0000391 %	✓	
18	fluoranthene	205-912-4	206-44-0		2.5 mg/kg		2.383 mg/kg	0.000238 %	✓	
19	pyrene	204-927-3	129-00-0		2.2 mg/kg		2.097 mg/kg	0.00021 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	1.3 mg/kg		1.239 mg/kg	0.000124 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	1.3 mg/kg		1.239 mg/kg	0.000124 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1.3 mg/kg		1.239 mg/kg	0.000124 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.9 mg/kg		0.858 mg/kg	0.0000858 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.2 mg/kg		1.144 mg/kg	0.000114 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.79 mg/kg		0.753 mg/kg	0.0000753 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.23 mg/kg		0.219 mg/kg	0.0000219 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		0.89 mg/kg		0.848 mg/kg	0.0000848 %	✓	
Total:								0.103 %		

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



Classification of sample: TP64

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

Sample details

Sample Name:	LoW Code:	
TP64	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }				21 mg/kg	1.32	24.122 mg/kg	0.00241 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.447 mg/kg	0.0000348 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30 mg/kg	1.462	38.147 mg/kg	0.00381 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				72 mg/kg	1.126	70.526 mg/kg	0.00705 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	160 mg/kg	1.56	217.126 mg/kg	0.0139 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				1 mg/kg	1.353	1.178 mg/kg	0.000118 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				29 mg/kg	1.579	39.851 mg/kg	0.00399 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				130 mg/kg	1.245	140.777 mg/kg	0.0141 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0459 %		

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

Classification of sample: TP65

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

Sample details

Sample Name: TP65	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 11% (wet weight correction)		

Hazard properties

None identified

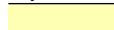



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.9 pH		6.9 pH	6.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		9.6 mg/kg	1.32	11.281 mg/kg	0.00113 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		31 mg/kg	1.462	40.324 mg/kg	0.00403 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		26 mg/kg	1.126	26.053 mg/kg	0.00261 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	46 mg/kg	1.56	63.859 mg/kg	0.00409 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.602 mg/kg	0.0000602 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		24 mg/kg	1.579	33.738 mg/kg	0.00337 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		71 mg/kg	1.245	78.653 mg/kg	0.00787 %	✓	
Total:								0.0237 %		



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



Classification of sample: TP67

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

Sample details

Sample Name: TP67	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.5 pH		6.5 pH	6.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	16 mg/kg	1.32	18.801 mg/kg	0.00188 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.3 mg/kg	1.285	0.343 mg/kg	0.0000267 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	28 mg/kg	1.462	36.422 mg/kg	0.00364 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	54 mg/kg	1.126	54.11 mg/kg	0.00541 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	100 mg/kg	1.56	138.824 mg/kg	0.0089 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.8 mg/kg	1.353	0.964 mg/kg	0.0000964 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	24 mg/kg	1.579	33.738 mg/kg	0.00337 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	110 mg/kg	1.245	121.857 mg/kg	0.0122 %	✓	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.036 %		

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



Classification of sample: TP68

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

Sample details

Sample Name: TP68	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number							
1	pH				7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }				19 mg/kg	1.32	22.327 mg/kg	0.00223 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.458 mg/kg	0.0000356 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	41.625 mg/kg	0.00416 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				73 mg/kg	1.126	73.149 mg/kg	0.00731 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	170 mg/kg	1.56	236 mg/kg	0.0151 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.7 mg/kg	1.353	0.843 mg/kg	0.0000843 %	✔	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				32 mg/kg	1.579	44.984 mg/kg	0.0045 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				170 mg/kg	1.245	188.325 mg/kg	0.0188 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0528 %		



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



Classification of sample: WS48

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

Sample details

Sample Name:	LoW Code:	
WS48	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
12%		
(wet weight correction)		

Hazard properties

None identified

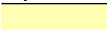



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH				5.7 pH		5.7 pH	5.7 pH		
2	arsenic { arsenic trioxide }				20 mg/kg	1.32	23.238 mg/kg	0.00232 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.452 mg/kg	0.0000352 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39 mg/kg	1.462	50.161 mg/kg	0.00502 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				67 mg/kg	1.126	66.382 mg/kg	0.00664 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	130 mg/kg	1.56	178.443 mg/kg	0.0114 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				1 mg/kg	1.353	1.191 mg/kg	0.000119 %	✔	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				29 mg/kg	1.579	40.309 mg/kg	0.00403 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				120 mg/kg	1.245	131.442 mg/kg	0.0131 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0432 %		



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

Classification of sample: WS52


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

Sample details

Sample Name:	LoW Code:	
WS52	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
9.2%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				31	mg/kg	1.32	37.165	mg/kg	0.00372 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.6	mg/kg	1.285	0.7	mg/kg	0.0000545 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				1.5	mg/kg	1.923	2.619	mg/kg	0.000262 %	✓	
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30	mg/kg	1.462	39.813	mg/kg	0.00398 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				81	mg/kg	1.126	82.807	mg/kg	0.00828 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	140	mg/kg	1.56	198.284	mg/kg	0.0127 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.8	mg/kg	1.353	0.983	mg/kg	0.0000983 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				33	mg/kg	1.579	47.328	mg/kg	0.00473 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				160	mg/kg	1.245	180.832	mg/kg	0.0181 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0522 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.


Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00026%)

Classification of sample: WS53


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

Sample details

Sample Name: WS53 Sample Depth: 0.00-0.40 m Moisture content: 13% (wet weight correction)	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
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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
	CLP index number	EC Number	CAS Number									
1	pH				6.8	pH		6.8	pH	6.8 pH		
2	arsenic { arsenic trioxide }				19	mg/kg	1.32	21.825	mg/kg	0.00218 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.559	mg/kg	0.0000435 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				34	mg/kg	1.462	43.233	mg/kg	0.00432 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				83	mg/kg	1.126	81.3	mg/kg	0.00813 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	100	mg/kg	1.56	135.704	mg/kg	0.0087 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.707	mg/kg	0.0000707 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				29	mg/kg	1.579	39.851	mg/kg	0.00399 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				160	mg/kg	1.245	173.264	mg/kg	0.0173 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		<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]									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
13	asbestos				<		<	<		ND
	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								
Total:								0.0453 %		

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

Classification of sample: WS55

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

Sample details

Sample Name:	LoW Code:	
WS55	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.10-0.45 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number							
1	pH		PH		9.1 pH		9.1 pH	9.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		6.6 mg/kg	1.32	7.756 mg/kg	0.000776 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.229 mg/kg	0.0000178 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		11 mg/kg	1.462	14.309 mg/kg	0.00143 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		25 mg/kg	1.126	25.051 mg/kg	0.00251 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	37 mg/kg	1.56	51.365 mg/kg	0.00329 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		12 mg/kg	1.579	16.869 mg/kg	0.00169 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		43 mg/kg	1.245	47.635 mg/kg	0.00476 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		2.2 mg/kg		1.958 mg/kg	0.000196 %	✓	



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		6 mg/kg		5.34 mg/kg	0.000534 %	✓	
15	fluorene	201-695-5	86-73-7		6.3 mg/kg		5.607 mg/kg	0.000561 %	✓	
16	phenanthrene	201-581-5	85-01-8		75 mg/kg		66.75 mg/kg	0.00668 %	✓	
17	anthracene	204-371-1	120-12-7		23 mg/kg		20.47 mg/kg	0.00205 %	✓	
18	fluoranthene	205-912-4	206-44-0		170 mg/kg		151.3 mg/kg	0.0151 %	✓	
19	pyrene	204-927-3	129-00-0		140 mg/kg		124.6 mg/kg	0.0125 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	74 mg/kg		65.86 mg/kg	0.00659 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	52 mg/kg		46.28 mg/kg	0.00463 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	77 mg/kg		68.53 mg/kg	0.00685 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	24 mg/kg		21.36 mg/kg	0.00214 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	56 mg/kg		49.84 mg/kg	0.00498 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		30 mg/kg		26.7 mg/kg	0.00267 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	9.3 mg/kg		8.277 mg/kg	0.000828 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		32 mg/kg		28.48 mg/kg	0.00285 %	✓	
Total:								0.0841 %		

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



Classification of sample: SA04

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

Sample details

Sample Name:	LoW Code:	
SA04	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.25-0.70 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number							
1	pH				7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	17.626 mg/kg	0.00176 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.5 mg/kg	1.285	0.572 mg/kg	0.0000445 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				29 mg/kg	1.462	37.723 mg/kg	0.00377 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				72 mg/kg	1.126	72.147 mg/kg	0.00721 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	190 mg/kg	1.56	263.765 mg/kg	0.0169 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.602 mg/kg	0.0000602 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				29 mg/kg	1.579	40.767 mg/kg	0.00408 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				250 mg/kg	1.245	276.949 mg/kg	0.0277 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.46 mg/kg		0.409 mg/kg	0.0000409 %	✓	
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		1.6 mg/kg		1.424 mg/kg	0.000142 %	✓	
19	pyrene	204-927-3	129-00-0		1.6 mg/kg		1.424 mg/kg	0.000142 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	1.1 mg/kg		0.979 mg/kg	0.0000979 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	1.1 mg/kg		0.979 mg/kg	0.0000979 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	2.6 mg/kg		2.314 mg/kg	0.000231 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.46 mg/kg		0.409 mg/kg	0.0000409 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.9 mg/kg		1.691 mg/kg	0.000169 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		1 mg/kg		0.89 mg/kg	0.000089 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	0.25 mg/kg		0.223 mg/kg	0.0000222 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		1.1 mg/kg		0.979 mg/kg	0.0000979 %	✓	
28	TPH (C6 to C40) petroleum group		TPH		96.3 mg/kg		85.707 mg/kg	0.00857 %	✓	
29	benzene	601-020-00-8	200-753-7	71-43-2	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
30	toluene	601-021-00-3	203-625-9	108-88-3	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
31	ethylbenzene	601-023-00-4	202-849-4	100-41-4	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
32	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]	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
Total:								0.0722 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this



can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00857%)



Classification of sample: TP70

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

Sample details

Sample Name:	TP70	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.2%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }				8.4 mg/kg	1.32	10.181 mg/kg	0.00102 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.236 mg/kg	0.0000184 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				25 mg/kg	1.462	33.543 mg/kg	0.00335 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				22 mg/kg	1.126	22.738 mg/kg	0.00227 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	37 mg/kg	1.56	52.981 mg/kg	0.0034 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.7 mg/kg	1.353	0.87 mg/kg	0.000087 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				21 mg/kg	1.579	30.45 mg/kg	0.00304 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				74 mg/kg	1.245	84.556 mg/kg	0.00846 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0221 %		



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



Classification of sample: TP71

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

Sample details

Sample Name: TP71	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number							
1	pH				6.2 pH		6.2 pH	6.2 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	17.626 mg/kg	0.00176 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.343 mg/kg	0.0000267 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				40 mg/kg	1.462	52.031 mg/kg	0.0052 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				42 mg/kg	1.126	42.086 mg/kg	0.00421 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	70 mg/kg	1.56	97.176 mg/kg	0.00623 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.482 mg/kg	0.0000482 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				32 mg/kg	1.579	44.984 mg/kg	0.0045 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				120 mg/kg	1.245	132.935 mg/kg	0.0133 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	TPH (C6 to C40) petroleum group				16 mg/kg		14.24 mg/kg	0.00142 %	✓	
			TPH							
13	benzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
14	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD	
	601-021-00-3	203-625-9	108-88-3								
15	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD	
	601-023-00-4	202-849-4	100-41-4								
Total:								0.0375 %			

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00142%)



Classification of sample: TP72

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

Sample details

Sample Name: TP72	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.80-1.00 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number								
1	pH				8.2 pH		8.2	pH	8.2 pH		
2	arsenic { arsenic trioxide }				7.1 mg/kg	1.32	8.156	mg/kg	0.000816 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6								
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				45 mg/kg	1.462	57.22	mg/kg	0.00572 %	✓	
		215-160-9	1308-38-9								
6	copper { dicopper oxide; copper (I) oxide }				19 mg/kg	1.126	18.611	mg/kg	0.00186 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	13 mg/kg	1.56	17.642	mg/kg	0.00113 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
9	nickel { nickel dihydroxide }				42 mg/kg	1.579	57.715	mg/kg	0.00577 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]								
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8										
11	zinc { zinc oxide }				52 mg/kg	1.245	56.311	mg/kg	0.00563 %	✓	
	030-013-00-7	215-222-5	1314-13-2								
12	asbestos				<		<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0215 %		

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



Classification of sample: TP73

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

Sample details

Sample Name: TP73	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.10 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }				18 mg/kg	1.32	20.676 mg/kg	0.00207 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.5 mg/kg	1.285	0.559 mg/kg	0.0000435 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41 mg/kg	1.462	52.134 mg/kg	0.00521 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				61 mg/kg	1.126	59.751 mg/kg	0.00598 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	90 mg/kg	1.56	122.134 mg/kg	0.00783 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.9 mg/kg	1.353	1.06 mg/kg	0.000106 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				32 mg/kg	1.579	43.973 mg/kg	0.0044 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.4 mg/kg	2.554	5.332 mg/kg	0.000533 %	✓	
	034-002-00-8									
11	zinc { zinc oxide }				150 mg/kg	1.245	162.435 mg/kg	0.0162 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<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]							
Total:								0.0427 %		



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



Classification of sample: TP74

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

Sample details

Sample Name:	TP74	LoW Code:	
Sample Depth:	0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	15%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	14.59 mg/kg	0.00146 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.328 mg/kg	0.0000255 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27 mg/kg	1.462	33.543 mg/kg	0.00335 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				31 mg/kg	1.126	29.667 mg/kg	0.00297 %	✓	
7	lead { lead chromate }			1	49 mg/kg	1.56	64.966 mg/kg	0.00416 %	✓	
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.575 mg/kg	0.0000575 %	✓	
9	nickel { nickel dihydroxide }				27 mg/kg	1.579	36.25 mg/kg	0.00362 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				69 mg/kg	1.245	73.002 mg/kg	0.0073 %	✓	
Total:								0.0234 %		



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



Classification of sample: TP76

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

Sample details

Sample Name: TP76	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 7.4% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 7.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.4	pH		6.4	pH	6.4 pH		
2	arsenic { arsenic trioxide }				18	mg/kg	1.32	22.007	mg/kg	0.0022 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.476	mg/kg	0.000037 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41	mg/kg	1.462	55.489	mg/kg	0.00555 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				53	mg/kg	1.126	55.256	mg/kg	0.00553 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	100	mg/kg	1.56	144.439	mg/kg	0.00926 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.752	mg/kg	0.0000752 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				39	mg/kg	1.579	57.042	mg/kg	0.0057 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				130	mg/kg	1.245	149.839	mg/kg	0.015 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	● acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	● fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	● phenanthrene	201-581-5	85-01-8		0.25 mg/kg		0.231 mg/kg	0.0000231 %	✓	
17	● anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	● fluoranthene	205-912-4	206-44-0		0.41 mg/kg		0.38 mg/kg	0.000038 %	✓	
19	● pyrene	204-927-3	129-00-0		0.49 mg/kg		0.454 mg/kg	0.0000454 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		0.27 mg/kg		0.25 mg/kg	0.000025 %	✓	
21	chrysene	601-048-00-0	205-923-4		0.25 mg/kg		0.231 mg/kg	0.0000231 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		0.3 mg/kg		0.278 mg/kg	0.0000278 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		0.17 mg/kg		0.157 mg/kg	0.0000157 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		0.33 mg/kg		0.306 mg/kg	0.0000306 %	✓	
25	● indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	● benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	benzene	601-020-00-8	200-753-7		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
29	toluene	601-021-00-3	203-625-9		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
30	● ethylbenzene	601-023-00-4	202-849-4		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
31	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		<		<	<		ND
Total:								0.0444 %		

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



Classification of sample: WS54

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

Sample details

Sample Name:	WS54	LoW Code:	
Sample Depth:	0.00-0.40 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	9.7%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 9.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				7.8	pH		7.8	pH	7.8 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	20.268	mg/kg	0.00203 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.6	mg/kg	1.285	0.696	mg/kg	0.0000542 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41	mg/kg	1.462	54.111	mg/kg	0.00541 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				53	mg/kg	1.126	53.884	mg/kg	0.00539 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	81	mg/kg	1.56	114.09	mg/kg	0.00731 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.8	mg/kg	1.353	0.978	mg/kg	0.0000978 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				31	mg/kg	1.579	44.215	mg/kg	0.00442 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				140	mg/kg	1.245	157.357	mg/kg	0.0157 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0409 %		



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



Classification of sample: WS56

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

Sample details

Sample Name: WS56	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.32 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 23% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.7 pH		6.7 pH	6.7 pH		
2	arsenic { arsenic trioxide }				26 mg/kg	1.32	26.433 mg/kg	0.00264 %	✓	
3	cadmium { cadmium sulfide }			1	0.8 mg/kg	1.285	0.792 mg/kg	0.0000616 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				44 mg/kg	1.462	49.518 mg/kg	0.00495 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				69 mg/kg	1.126	59.818 mg/kg	0.00598 %	✓	
7	lead { lead chromate }			1	96 mg/kg	1.56	115.302 mg/kg	0.00739 %	✓	
8	mercury { mercury dichloride }				0.9 mg/kg	1.353	0.938 mg/kg	0.0000938 %	✓	
9	nickel { nickel dihydroxide }				39 mg/kg	1.579	47.432 mg/kg	0.00474 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3.2 mg/kg	2.554	6.292 mg/kg	0.000629 %	✓	
11	zinc { zinc oxide }				160 mg/kg	1.245	153.349 mg/kg	0.0153 %	✓	
Total:								0.0421 %		



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



Classification of sample: WS58

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

Sample details

Sample Name:	WS58	LoW Code:	
Sample Depth:	0.00-0.25 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	7.6%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 7.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.7	pH		6.7	pH	6.7 pH		
2	arsenic { arsenic trioxide }				11	mg/kg	1.32	13.42	mg/kg	0.00134 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.356	mg/kg	0.0000277 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				28	mg/kg	1.462	37.813	mg/kg	0.00378 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				29	mg/kg	1.126	30.169	mg/kg	0.00302 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	40	mg/kg	1.56	57.651	mg/kg	0.0037 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.75	mg/kg	0.000075 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				25	mg/kg	1.579	36.486	mg/kg	0.00365 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				76	mg/kg	1.245	87.409	mg/kg	0.00874 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	• phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-581-5	85-01-8							
17	• anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
18	• fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-912-4	206-44-0							
19	• pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-927-3	129-00-0							
20	benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6							
21	chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4							
22	benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9							
23	benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6							
24	benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5							
25	• indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8							
27	• benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-883-8	191-24-2							
Total:								0.0249 %		

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



Classification of sample: WS62

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

Sample details

Sample Name:	WS62	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.4%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }				12 mg/kg	1.32	14.513 mg/kg	0.00145 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.471 mg/kg	0.0000366 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				34 mg/kg	1.462	45.519 mg/kg	0.00455 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	38.159 mg/kg	0.00382 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	48 mg/kg	1.56	68.582 mg/kg	0.0044 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.744 mg/kg	0.0000744 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				29 mg/kg	1.579	41.958 mg/kg	0.0042 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				92 mg/kg	1.245	104.895 mg/kg	0.0105 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				0.44 mg/kg		0.403 mg/kg	0.000403 %	✓	
		201-695-5	86-73-7							
16	• phenanthrene				1.7 mg/kg		1.557 mg/kg	0.000156 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.5 mg/kg		0.458 mg/kg	0.000458 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				2.1 mg/kg		1.924 mg/kg	0.000192 %	✓	
		205-912-4	206-44-0							
19	• pyrene				1.6 mg/kg		1.466 mg/kg	0.000147 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				1.3 mg/kg		1.191 mg/kg	0.000119 %	✓	
		601-033-00-9	200-280-6							
21	chrysene				0.86 mg/kg		0.788 mg/kg	0.0000788 %	✓	
		601-048-00-0	205-923-4							
22	benzo[b]fluoranthene				1 mg/kg		0.916 mg/kg	0.0000916 %	✓	
		601-034-00-4	205-911-9							
23	benzo[k]fluoranthene				0.4 mg/kg		0.366 mg/kg	0.0000366 %	✓	
		601-036-00-5	205-916-6							
24	benzo[a]pyrene; benzo[def]chrysene				0.71 mg/kg		0.65 mg/kg	0.000065 %	✓	
		601-032-00-3	200-028-5							
25	• indeno[123-cd]pyrene				0.37 mg/kg		0.339 mg/kg	0.0000339 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8							
27	• benzo[ghi]perylene				0.43 mg/kg		0.394 mg/kg	0.0000394 %	✓	
		205-883-8	191-24-2							
Total:								0.0306 %		

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



Classification of sample: WS63

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

Sample details

Sample Name:	WS63	LoW Code:	
Sample Depth:	0.00-0.50 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	13%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	14.933 mg/kg	0.00149 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39 mg/kg	1.462	49.591 mg/kg	0.00496 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				49 mg/kg	1.126	47.997 mg/kg	0.0048 %	✓	
7	lead { lead chromate }			1	40 mg/kg	1.56	54.282 mg/kg	0.00348 %	✓	
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.707 mg/kg	0.0000707 %	✓	
9	nickel { nickel dihydroxide }				30 mg/kg	1.579	41.225 mg/kg	0.00412 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				73 mg/kg	1.245	79.052 mg/kg	0.00791 %	✓	
12	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
Total:								0.0274 %		



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



Classification of sample: WS64

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

Sample details

Sample Name:	WS64	LoW Code:	
Sample Depth:	0.00-0.20 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	11%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(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
	CLP index number	EC Number	CAS Number									
1	pH				6.8	pH		6.8	pH	6.8 pH		
2	arsenic { arsenic trioxide }				10	mg/kg	1.32	11.751	mg/kg	0.00118 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31	mg/kg	1.462	40.324	mg/kg	0.00403 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				29	mg/kg	1.126	29.059	mg/kg	0.00291 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	41	mg/kg	1.56	56.918	mg/kg	0.00365 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.4	mg/kg	1.353	0.482	mg/kg	0.0000482 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				24	mg/kg	1.579	33.738	mg/kg	0.00337 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				75	mg/kg	1.245	83.085	mg/kg	0.00831 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	• phenanthrene				1.1 mg/kg		0.979 mg/kg	0.0000979 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.21 mg/kg		0.187 mg/kg	0.0000187 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				1.7 mg/kg		1.513 mg/kg	0.000151 %	✓	
		205-912-4	206-44-0							
19	• pyrene				1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				0.92 mg/kg		0.819 mg/kg	0.0000819 %	✓	
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				0.7 mg/kg		0.623 mg/kg	0.0000623 %	✓	
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				0.79 mg/kg		0.703 mg/kg	0.0000703 %	✓	
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				0.34 mg/kg		0.303 mg/kg	0.0000303 %	✓	
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				0.61 mg/kg		0.543 mg/kg	0.0000543 %	✓	
	601-032-00-3	200-028-5	50-32-8							
25	• indeno[123-cd]pyrene				0.35 mg/kg		0.312 mg/kg	0.0000311 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
27	• benzo[ghi]perylene				0.4 mg/kg		0.356 mg/kg	0.0000356 %	✓	
		205-883-8	191-24-2							
28	asbestos				<		<	<		ND
	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							
Total:								0.0248 %		

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



Classification of sample: WS65

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

Sample details

Sample Name:	WS65	LoW Code:	
Sample Depth:	0.00-0.20 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	12%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				7.4 pH		7.4 pH	7.4 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	15.105 mg/kg	0.00151 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.226 mg/kg	0.0000176 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	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							
6	copper { dicopper oxide; copper (I) oxide }				43 mg/kg	1.126	42.604 mg/kg	0.00426 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	59 mg/kg	1.56	80.986 mg/kg	0.00519 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				25 mg/kg	1.579	34.749 mg/kg	0.00347 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				89 mg/kg	1.245	97.486 mg/kg	0.00975 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	TPH (C6 to C40) petroleum group				60.6 mg/kg		53.328 mg/kg	0.00533 %	✓	
			TPH							
13	benzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
16	asbestos				<		<	<		ND
	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								
Total:								0.035 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00533%)



Classification of sample: WS66

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

Sample details

Sample Name:	WS66	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	9.4%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				7.3	pH		7.3	pH	7.3 pH		
2	arsenic { arsenic trioxide }				15	mg/kg	1.32	17.943	mg/kg	0.00179 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.349	mg/kg	0.0000272 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36	mg/kg	1.462	47.67	mg/kg	0.00477 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	32.642	mg/kg	0.00326 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	41	mg/kg	1.56	57.941	mg/kg	0.00371 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				33	mg/kg	1.579	47.224	mg/kg	0.00472 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				82	mg/kg	1.245	92.472	mg/kg	0.00925 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0281 %		

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



Classification of sample: WS67

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

Sample details

Sample Name:	WS67	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	7.5%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 7.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				7 pH		7 pH	7pH		
2	arsenic { arsenic trioxide }				17 mg/kg	1.32	20.762 mg/kg	0.00208 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.476 mg/kg	0.000037 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	43.262 mg/kg	0.00433 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				40 mg/kg	1.126	41.658 mg/kg	0.00417 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	55 mg/kg	1.56	79.356 mg/kg	0.00509 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.626 mg/kg	0.0000626 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				31 mg/kg	1.579	45.292 mg/kg	0.00453 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				92 mg/kg	1.245	105.925 mg/kg	0.0106 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0314 %		



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



Classification of sample: WS69

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

Sample details

Sample Name:	WS69	LoW Code:	
Sample Depth:	0.30-0.80 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	14%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				7.9 pH		7.9 pH	7.9 pH		
2	arsenic { arsenic trioxide }				5.5 mg/kg	1.32	6.245 mg/kg	0.000625 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				22 mg/kg	1.462	27.653 mg/kg	0.00277 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				12 mg/kg	1.126	11.619 mg/kg	0.00116 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	7.1 mg/kg	1.56	9.524 mg/kg	0.000611 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				20 mg/kg	1.579	27.167 mg/kg	0.00272 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				30 mg/kg	1.245	32.114 mg/kg	0.00321 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0116 %		



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



Classification of sample: SA05

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

Sample details

Sample Name:	SA05	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	17%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				7.6 pH		7.6 pH	7.6 pH		
2	arsenic { arsenic trioxide }				19 mg/kg	1.32	20.822 mg/kg	0.00208 %	✓	
3	cadmium { cadmium sulfide }			1	0.6 mg/kg	1.285	0.64 mg/kg	0.0000498 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	38.819 mg/kg	0.00388 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				36 mg/kg	1.126	33.642 mg/kg	0.00336 %	✓	
7	lead { lead chromate }			1	28 mg/kg	1.56	36.25 mg/kg	0.00232 %	✓	
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.562 mg/kg	0.0000562 %	✓	
9	nickel { nickel dihydroxide }				39 mg/kg	1.579	51.128 mg/kg	0.00511 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.5 mg/kg	2.554	5.299 mg/kg	0.00053 %	✓	
11	zinc { zinc oxide }				85 mg/kg	1.245	87.815 mg/kg	0.00878 %	✓	
Total:								0.0264 %		



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



Classification of sample: TP79

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

Sample details

Sample Name: TP79	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.30-0.90 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				7.5 pH		7.5 pH	7.5 pH		
2	arsenic { arsenic trioxide }				11 mg/kg	1.32	12.49 mg/kg	0.00125 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				47 mg/kg	1.462	59.076 mg/kg	0.00591 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				27 mg/kg	1.126	26.143 mg/kg	0.00261 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	19 mg/kg	1.56	25.487 mg/kg	0.00163 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				46 mg/kg	1.579	62.485 mg/kg	0.00625 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				72 mg/kg	1.245	77.073 mg/kg	0.00771 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0259 %		



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



Classification of sample: TP80

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

Sample details

Sample Name:	TP80	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	14%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				7.1	pH		7.1	pH	7.1 pH		
2	arsenic { arsenic trioxide }				19	mg/kg	1.32	21.574	mg/kg	0.00216 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.6	mg/kg	1.285	0.663	mg/kg	0.0000516 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42	mg/kg	1.462	52.791	mg/kg	0.00528 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				49	mg/kg	1.126	47.445	mg/kg	0.00474 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	51	mg/kg	1.56	68.413	mg/kg	0.00439 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.698	mg/kg	0.0000698 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				40	mg/kg	1.579	54.335	mg/kg	0.00543 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3.1	mg/kg	2.554	6.808	mg/kg	0.000681 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				120	mg/kg	1.245	128.454	mg/kg	0.0128 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		<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]									
Total:										0.036 %		



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



Classification of sample: TP82

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

Sample details

Sample Name:	TP82	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	13%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				7.8	pH		7.8	pH	7.8 pH		
2	arsenic { arsenic trioxide }				20	mg/kg	1.32	22.974	mg/kg	0.0023 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.559	mg/kg	0.0000435 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				38	mg/kg	1.462	48.319	mg/kg	0.00483 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				52	mg/kg	1.126	50.935	mg/kg	0.00509 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	69	mg/kg	1.56	93.636	mg/kg	0.006 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.707	mg/kg	0.0000707 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				37	mg/kg	1.579	50.844	mg/kg	0.00508 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				130	mg/kg	1.245	140.777	mg/kg	0.0141 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.038 %		



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



Classification of sample: TP84

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

Sample details

Sample Name: TP84	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 12% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				7.1	pH		7.1	pH	7.1 pH		
2	arsenic { arsenic trioxide }				12	mg/kg	1.32	13.943	mg/kg	0.00139 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.339	mg/kg	0.0000264 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				37	mg/kg	1.462	47.588	mg/kg	0.00476 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				39	mg/kg	1.126	38.64	mg/kg	0.00386 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	49	mg/kg	1.56	67.259	mg/kg	0.00431 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.596	mg/kg	0.0000596 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				30	mg/kg	1.579	41.699	mg/kg	0.00417 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				85	mg/kg	1.245	93.105	mg/kg	0.00931 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									
13	toluene				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
	601-021-00-3	203-625-9	108-88-3									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
15	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-022-00-9	202-422-2 [1]	95-47-6 [1]							
		203-396-5 [2]	106-42-3 [2]							
		203-576-3 [3]	108-38-3 [3]							
		215-535-7 [4]	1330-20-7 [4]							
Total:								0.0288 %		

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



Classification of sample: TP86

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

Sample details

Sample Name:	TP86	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.8%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

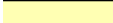



None identified

Determinands

Moisture content: 8.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				7.5 pH		7.5 pH	7.5 pH		
2	arsenic { arsenic trioxide }				7.5 mg/kg	1.32	9.031 mg/kg	0.000903 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				2.4 mg/kg	1.923	4.209 mg/kg	0.000421 %	✓	
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				26 mg/kg	1.462	34.656 mg/kg	0.00347 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				19 mg/kg	1.126	19.509 mg/kg	0.00195 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	29 mg/kg	1.56	41.254 mg/kg	0.00264 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				18 mg/kg	1.579	25.929 mg/kg	0.00259 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				57 mg/kg	1.245	64.705 mg/kg	0.00647 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0188 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00042%)



Classification of sample: TP88

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

Sample details

Sample Name: TP88	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number									
1	pH				7.7	pH		7.7	pH	7.7 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	19.977	mg/kg	0.002 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.572	mg/kg	0.0000445 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				40	mg/kg	1.462	52.031	mg/kg	0.0052 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				51	mg/kg	1.126	51.104	mg/kg	0.00511 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	63	mg/kg	1.56	87.459	mg/kg	0.00561 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.843	mg/kg	0.0000843 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				34	mg/kg	1.579	47.796	mg/kg	0.00478 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.9	mg/kg	2.554	6.591	mg/kg	0.000659 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				120	mg/kg	1.245	132.935	mg/kg	0.0133 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	TPH (C6 to C40) petroleum group				46.3	mg/kg		41.207	mg/kg	0.00412 %	✓	
			TPH									
13	benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
16	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-022-00-9	202-422-2 [1]	95-47-6 [1]							
		203-396-5 [2]	106-42-3 [2]							
		203-576-3 [3]	108-38-3 [3]							
		215-535-7 [4]	1330-20-7 [4]							
Total:								0.0415 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00412%)



Classification of sample: TP89

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

Sample details

Sample Name:	TP89	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	9.4%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 9.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				7.7 pH		7.7 pH	7.7 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	15.551 mg/kg	0.00156 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.349 mg/kg	0.0000272 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33 mg/kg	1.462	43.698 mg/kg	0.00437 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				36 mg/kg	1.126	36.722 mg/kg	0.00367 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	41 mg/kg	1.56	57.941 mg/kg	0.00371 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.491 mg/kg	0.0000491 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				32 mg/kg	1.579	45.793 mg/kg	0.00458 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				110 mg/kg	1.245	124.048 mg/kg	0.0124 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0309 %		



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



Classification of sample: TP90

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

Sample details

Sample Name:	TP90	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	13%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.9 pH		6.9 pH	6.9 pH		
2	arsenic { arsenic trioxide }				20 mg/kg	1.32	22.974 mg/kg	0.0023 %	✓	
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.447 mg/kg	0.0000348 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				38 mg/kg	1.462	48.319 mg/kg	0.00483 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				45 mg/kg	1.126	44.079 mg/kg	0.00441 %	✓	
7	lead { lead chromate }			1	68 mg/kg	1.56	92.279 mg/kg	0.00592 %	✓	
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.707 mg/kg	0.0000707 %	✓	
9	nickel { nickel dihydroxide }				34 mg/kg	1.579	46.722 mg/kg	0.00467 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				110 mg/kg	1.245	119.119 mg/kg	0.0119 %	✓	
12	TPH (C6 to C40) petroleum group				58.3 mg/kg		50.721 mg/kg	0.00507 %	✓	
13	benzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
14	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD	
	601-021-00-3	203-625-9	108-88-3								
15	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD	
	601-023-00-4	202-849-4	100-41-4								
Total:								0.04 %			

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00507%)



Classification of sample: TP91

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

Sample details

Sample Name:	TP91	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	11%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(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
	CLP index number	EC Number	CAS Number									
1	pH				7.3	pH		7.3	pH	7.3 pH		
2	arsenic { arsenic trioxide }				18	mg/kg	1.32	21.152	mg/kg	0.00212 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.458	mg/kg	0.0000356 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				37	mg/kg	1.462	48.129	mg/kg	0.00481 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				42	mg/kg	1.126	42.086	mg/kg	0.00421 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	55	mg/kg	1.56	76.353	mg/kg	0.0049 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.602	mg/kg	0.0000602 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				36	mg/kg	1.579	50.607	mg/kg	0.00506 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				100	mg/kg	1.245	110.78	mg/kg	0.0111 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0328 %		



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



Classification of sample: TP92

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

Sample details

Sample Name:	TP92	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.1%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 8.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				7.4	pH		7.4	pH	7.4 pH		
2	arsenic { arsenic trioxide }				14	mg/kg	1.32	16.987	mg/kg	0.0017 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.354	mg/kg	0.0000276 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				28	mg/kg	1.462	37.609	mg/kg	0.00376 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				40	mg/kg	1.126	41.388	mg/kg	0.00414 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	52	mg/kg	1.56	74.54	mg/kg	0.00478 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.622	mg/kg	0.0000622 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				27	mg/kg	1.579	39.192	mg/kg	0.00392 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.4	mg/kg	2.554	5.632	mg/kg	0.000563 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				86	mg/kg	1.245	98.375	mg/kg	0.00984 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		<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]									
Total:										0.0291 %		



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



Classification of sample: WS70

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

Sample details

Sample Name:	WS70	LoW Code:	
Sample Depth:	0.20-0.50 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	3.1%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 3.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				8	pH		8	pH	8pH		
2	arsenic { arsenic trioxide }				8	mg/kg	1.32	10.235	mg/kg	0.00102 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.623	mg/kg	0.0000485 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				22	mg/kg	1.462	31.157	mg/kg	0.00312 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				31	mg/kg	1.126	33.821	mg/kg	0.00338 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	40	mg/kg	1.56	60.458	mg/kg	0.00388 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				26	mg/kg	1.579	39.794	mg/kg	0.00398 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				150	mg/kg	1.245	180.919	mg/kg	0.0181 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	• phenanthrene				1.4 mg/kg		1.357 mg/kg	0.000136 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.56 mg/kg		0.543 mg/kg	0.0000543 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				3.3 mg/kg		3.198 mg/kg	0.00032 %	✓	
		205-912-4	206-44-0							
19	• pyrene				3.3 mg/kg		3.198 mg/kg	0.00032 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				2.2 mg/kg		2.132 mg/kg	0.000213 %	✓	
		601-033-00-9	200-280-6							
21	chrysene				1.7 mg/kg		1.647 mg/kg	0.000165 %	✓	
		601-048-00-0	205-923-4							
22	benzo[b]fluoranthene				2.7 mg/kg		2.616 mg/kg	0.000262 %	✓	
		601-034-00-4	205-911-9							
23	benzo[k]fluoranthene				1.4 mg/kg		1.357 mg/kg	0.000136 %	✓	
		601-036-00-5	205-916-6							
24	benzo[a]pyrene; benzo[def]chrysene				2.9 mg/kg		2.81 mg/kg	0.000281 %	✓	
		601-032-00-3	200-028-5							
25	• indeno[123-cd]pyrene				1.4 mg/kg		1.357 mg/kg	0.000136 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				0.38 mg/kg		0.368 mg/kg	0.0000368 %	✓	
		601-041-00-2	200-181-8							
27	• benzo[ghi]perylene				1.8 mg/kg		1.744 mg/kg	0.000174 %	✓	
		205-883-8	191-24-2							
Total:								0.0363 %		

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



Classification of sample: WS71

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

Sample details

Sample Name:	WS71	LoW Code:	
Sample Depth:	0.00-0.40 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	11%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(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
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	19.977	mg/kg	0.002 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.458	mg/kg	0.0000356 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				38	mg/kg	1.462	49.43	mg/kg	0.00494 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				43	mg/kg	1.126	43.088	mg/kg	0.00431 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	92	mg/kg	1.56	127.718	mg/kg	0.00819 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.723	mg/kg	0.0000723 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				38	mg/kg	1.579	53.419	mg/kg	0.00534 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				110	mg/kg	1.245	121.857	mg/kg	0.0122 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	● acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	● fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	● phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	● anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	● fluoranthene	205-912-4	206-44-0		0.36 mg/kg		0.32 mg/kg	0.000032 %	✓	
19	● pyrene	204-927-3	129-00-0		0.35 mg/kg		0.312 mg/kg	0.0000311 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		0.24 mg/kg		0.214 mg/kg	0.0000214 %	✓	
21	chrysene	601-048-00-0	205-923-4		0.18 mg/kg		0.16 mg/kg	0.000016 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	● indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	● benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	benzene	601-020-00-8	200-753-7		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
29	toluene	601-021-00-3	203-625-9		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
30	● ethylbenzene	601-023-00-4	202-849-4		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
Total:								0.038 %		

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



Classification of sample: WS72

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

Sample details

Sample Name:	WS72	LoW Code:	
Sample Depth:	0.70-0.90 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	11%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(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
	CLP index number	EC Number	CAS Number							
1	pH				6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }				5.8 mg/kg	1.32	6.816 mg/kg	0.000682 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	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							
6	copper { dicopper oxide; copper (I) oxide }				16 mg/kg	1.126	16.033 mg/kg	0.0016 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	11 mg/kg	1.56	15.271 mg/kg	0.000979 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				32 mg/kg	1.579	44.984 mg/kg	0.0045 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				45 mg/kg	1.245	49.851 mg/kg	0.00499 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0172 %		



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



Classification of sample: WS73

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

Sample details

Sample Name: WS73	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 10% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.2 pH		6.2 pH	6.2 pH		
2	arsenic { arsenic trioxide }				12 mg/kg	1.32	14.26 mg/kg	0.00143 %	✓	
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.231 mg/kg	0.000018 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	47.354 mg/kg	0.00474 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				28 mg/kg	1.126	28.372 mg/kg	0.00284 %	✓	
7	lead { lead chromate }			1	33 mg/kg	1.56	46.327 mg/kg	0.00297 %	✓	
8	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.487 mg/kg	0.0000487 %	✓	
9	nickel { nickel dihydroxide }				35 mg/kg	1.579	49.754 mg/kg	0.00498 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				70 mg/kg	1.245	78.417 mg/kg	0.00784 %	✓	
Total:								0.0253 %		



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



Classification of sample: TP97

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

Sample details

Sample Name:	TP97	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	12%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				6	pH		6	pH	6pH		
2	arsenic { arsenic trioxide }				21	mg/kg	1.32	24.4	mg/kg	0.00244 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.339	mg/kg	0.0000264 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39	mg/kg	1.462	50.161	mg/kg	0.00502 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				47	mg/kg	1.126	46.567	mg/kg	0.00466 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	79	mg/kg	1.56	108.438	mg/kg	0.00695 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.834	mg/kg	0.0000834 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				39	mg/kg	1.579	54.208	mg/kg	0.00542 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				93	mg/kg	1.245	101.867	mg/kg	0.0102 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0353 %		



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



Classification of sample: WS75

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

Sample details

Sample Name:	WS75	LoW Code:	
Sample Depth:	0.70-1.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	48%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 48% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.9	pH		6.9	pH	6.9 pH		
2	arsenic { arsenic trioxide }				8.6	mg/kg	1.32	5.904	mg/kg	0.00059 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.2	mg/kg	0.0000156 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				19	mg/kg	1.462	14.44	mg/kg	0.00144 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				24	mg/kg	1.126	14.051	mg/kg	0.00141 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	11	mg/kg	1.56	8.922	mg/kg	0.000572 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				31	mg/kg	1.579	25.462	mg/kg	0.00255 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.3	mg/kg	2.554	3.054	mg/kg	0.000305 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				32	mg/kg	1.245	20.712	mg/kg	0.00207 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	• fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	• phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	• anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	• fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	• pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	• indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	• benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	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		<		<	<		ND
Total:								0.0093 %		

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



Classification of sample: WS76

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

Sample details

Sample Name: WS76	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9.5% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	15.534 mg/kg	0.00155 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.465 mg/kg	0.0000362 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				40 mg/kg	1.462	52.908 mg/kg	0.00529 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				27 mg/kg	1.126	27.511 mg/kg	0.00275 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	53 mg/kg	1.56	74.817 mg/kg	0.0048 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.49 mg/kg	0.000049 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				35 mg/kg	1.579	50.031 mg/kg	0.005 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.7 mg/kg	2.554	6.24 mg/kg	0.000624 %	✓	
	034-002-00-8									
11	zinc { zinc oxide }				81 mg/kg	1.245	91.244 mg/kg	0.00912 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	• fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	• phenanthrene	201-581-5	85-01-8		0.81 mg/kg		0.733 mg/kg	0.0000733 %	✓	
17	• anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	• fluoranthene	205-912-4	206-44-0		0.99 mg/kg		0.896 mg/kg	0.0000896 %	✓	
19	• pyrene	204-927-3	129-00-0		1.1 mg/kg		0.996 mg/kg	0.0000996 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		0.56 mg/kg		0.507 mg/kg	0.0000507 %	✓	
21	chrysene	601-048-00-0	205-923-4		0.47 mg/kg		0.425 mg/kg	0.0000425 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		0.46 mg/kg		0.416 mg/kg	0.0000416 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		0.3 mg/kg		0.271 mg/kg	0.0000271 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		0.57 mg/kg		0.516 mg/kg	0.0000516 %	✓	
25	• indeno[123-cd]pyrene	205-893-2	193-39-5		0.22 mg/kg		0.199 mg/kg	0.0000199 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	• benzo[ghi]perylene	205-883-8	191-24-2		0.28 mg/kg		0.253 mg/kg	0.0000253 %	✓	
Total:								0.03 %		

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



Classification of sample: WS77

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

Sample details

Sample Name: WS77	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 10% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				14	mg/kg	1.32	16.636	mg/kg	0.00166 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.463	mg/kg	0.000036 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				38	mg/kg	1.462	49.985	mg/kg	0.005 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				34	mg/kg	1.126	34.452	mg/kg	0.00345 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	46	mg/kg	1.56	64.576	mg/kg	0.00414 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.4	mg/kg	1.353	0.487	mg/kg	0.0000487 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				35	mg/kg	1.579	49.754	mg/kg	0.00498 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				80	mg/kg	1.245	89.619	mg/kg	0.00896 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0288 %		

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



Classification of sample: WS78

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

Sample details

Sample Name: WS78	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				19 mg/kg	1.32	21.825 mg/kg	0.00218 %	✓	
3	cadmium { cadmium sulfide }			1	0.5 mg/kg	1.285	0.559 mg/kg	0.0000435 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42 mg/kg	1.462	53.405 mg/kg	0.00534 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	36.242 mg/kg	0.00362 %	✓	
7	lead { lead chromate }			1	71 mg/kg	1.56	96.35 mg/kg	0.00618 %	✓	
8	mercury { mercury dichloride }				0.7 mg/kg	1.353	0.824 mg/kg	0.0000824 %	✓	
9	nickel { nickel dihydroxide }				35 mg/kg	1.579	48.096 mg/kg	0.00481 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3 mg/kg	2.554	6.665 mg/kg	0.000666 %	✓	
11	zinc { zinc oxide }				97 mg/kg	1.245	105.041 mg/kg	0.0105 %	✓	
Total:								0.0337 %		



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



Classification of sample: WS79

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

Sample details

Sample Name: WS79	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 15% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				14 mg/kg	1.32	15.712 mg/kg	0.00157 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.437 mg/kg	0.000034 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				40 mg/kg	1.462	49.693 mg/kg	0.00497 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	27.753 mg/kg	0.00278 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	75 mg/kg	1.56	99.438 mg/kg	0.00638 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.7 mg/kg	1.353	0.805 mg/kg	0.0000805 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				36 mg/kg	1.579	48.333 mg/kg	0.00483 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				85 mg/kg	1.245	89.931 mg/kg	0.00899 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0301 %		

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



Classification of sample: WS80

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

Sample details

Sample Name:	WS80	LoW Code:	
Sample Depth:	0.00-0.40 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	13%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }				15	mg/kg	1.32	17.23	mg/kg	0.00172 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.447	mg/kg	0.0000348 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41	mg/kg	1.462	52.134	mg/kg	0.00521 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				30	mg/kg	1.126	29.386	mg/kg	0.00294 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	66	mg/kg	1.56	89.565	mg/kg	0.00574 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.707	mg/kg	0.0000707 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				33	mg/kg	1.579	45.347	mg/kg	0.00453 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				96	mg/kg	1.245	103.959	mg/kg	0.0104 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0311 %		



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



Classification of sample: TP98

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

Sample details

Sample Name:	TP98	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	16%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.7	pH		6.7	pH	6.7 pH		
2	arsenic { arsenic trioxide }				16	mg/kg	1.32	17.745	mg/kg	0.00177 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.432	mg/kg	0.0000336 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				37	mg/kg	1.462	45.425	mg/kg	0.00454 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	30.264	mg/kg	0.00303 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	46	mg/kg	1.56	60.271	mg/kg	0.00386 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.568	mg/kg	0.0000568 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				37	mg/kg	1.579	49.091	mg/kg	0.00491 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				84	mg/kg	1.245	87.827	mg/kg	0.00878 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0275 %		



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



Classification of sample: TP99

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

Sample details

Sample Name: TP99	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.9	pH		5.9	pH	5.9 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	18.854	mg/kg	0.00189 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.432	mg/kg	0.0000336 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36	mg/kg	1.462	44.197	mg/kg	0.00442 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				35	mg/kg	1.126	33.101	mg/kg	0.00331 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	84	mg/kg	1.56	110.061	mg/kg	0.00706 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.5	mg/kg	1.353	0.568	mg/kg	0.0000568 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				36	mg/kg	1.579	47.764	mg/kg	0.00478 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.7	mg/kg	2.554	5.792	mg/kg	0.000579 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				100	mg/kg	1.245	104.556	mg/kg	0.0105 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0328 %		

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



Classification of sample: TP101

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

Sample details

Sample Name: TP101	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.25 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }				12 mg/kg	1.32	13.784 mg/kg	0.00138 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				40 mg/kg	1.462	50.862 mg/kg	0.00509 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	28.406 mg/kg	0.00284 %	✓	
7	lead { lead chromate }			1	43 mg/kg	1.56	58.353 mg/kg	0.00374 %	✓	
8	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.471 mg/kg	0.0000471 %	✓	
9	nickel { nickel dihydroxide }				39 mg/kg	1.579	53.592 mg/kg	0.00536 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				89 mg/kg	1.245	96.378 mg/kg	0.00964 %	✓	
12	asbestos				<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0286 %		

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



Classification of sample: TP106

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

Sample details

Sample Name:	TP106	LoW Code:	
Sample Depth:	1.00-1.20 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	11%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(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
	CLP index number	EC Number	CAS Number									
1	pH				7.8	pH		7.8	pH	7.8 pH		
2	arsenic { arsenic trioxide }				12	mg/kg	1.32	14.101	mg/kg	0.00141 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				37	mg/kg	1.462	48.129	mg/kg	0.00481 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				16	mg/kg	1.126	16.033	mg/kg	0.0016 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	12	mg/kg	1.56	16.659	mg/kg	0.00107 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				36	mg/kg	1.579	50.607	mg/kg	0.00506 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				51	mg/kg	1.245	56.498	mg/kg	0.00565 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0202 %		



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



Classification of sample: TP107

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

Sample details

Sample Name: TP107	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				5.7 pH		5.7 pH	5.7 pH		
2	arsenic { arsenic trioxide }				16 mg/kg	1.32	19.224 mg/kg	0.00192 %	✓	
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.468 mg/kg	0.0000364 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	47.881 mg/kg	0.00479 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	37.909 mg/kg	0.00379 %	✓	
7	lead { lead chromate }			1	93 mg/kg	1.56	132.007 mg/kg	0.00846 %	✓	
8	mercury { mercury dichloride }				0.8 mg/kg	1.353	0.985 mg/kg	0.0000985 %	✓	
9	nickel { nickel dihydroxide }				31 mg/kg	1.579	44.558 mg/kg	0.00446 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				100 mg/kg	1.245	113.269 mg/kg	0.0113 %	✓	
Total:								0.0354 %		



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



Classification of sample: TP109

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

Sample details

Sample Name:	TP109	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.5%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 8.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.3	pH		5.3	pH	5.3 pH		
2	arsenic { arsenic trioxide }				15	mg/kg	1.32	18.121	mg/kg	0.00181 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.353	mg/kg	0.0000274 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35	mg/kg	1.462	46.806	mg/kg	0.00468 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				25	mg/kg	1.126	25.755	mg/kg	0.00258 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	57	mg/kg	1.56	81.352	mg/kg	0.00522 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.9	mg/kg	1.353	1.115	mg/kg	0.000111 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				33	mg/kg	1.579	47.693	mg/kg	0.00477 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				94	mg/kg	1.245	107.058	mg/kg	0.0107 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0304 %		



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



Classification of sample: TP113

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

Sample details

Sample Name: TP113	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9.9% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 9.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }				8.7 mg/kg	1.32	10.35 mg/kg	0.00103 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				39 mg/kg	1.462	51.358 mg/kg	0.00514 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				21 mg/kg	1.126	21.303 mg/kg	0.00213 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	42 mg/kg	1.56	59.027 mg/kg	0.00378 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.8 mg/kg	1.353	0.976 mg/kg	0.0000976 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				33 mg/kg	1.579	46.963 mg/kg	0.0047 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				68 mg/kg	1.245	76.261 mg/kg	0.00763 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.025 %		



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



Classification of sample: TP115

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

Sample details

Sample Name:	TP115	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	13%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				5.8	pH		5.8	pH	5.8 pH		
2	arsenic { arsenic trioxide }				15	mg/kg	1.32	17.23	mg/kg	0.00172 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.2	mg/kg	1.285	0.224	mg/kg	0.0000174 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				28	mg/kg	1.462	35.603	mg/kg	0.00356 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	31.345	mg/kg	0.00313 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	74	mg/kg	1.56	100.421	mg/kg	0.00644 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				2.2	mg/kg	1.353	2.591	mg/kg	0.000259 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				24	mg/kg	1.579	32.98	mg/kg	0.0033 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				74	mg/kg	1.245	80.135	mg/kg	0.00801 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0269 %		

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



Classification of sample: TP116

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

Sample details

Sample Name: TP116	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	14.761 mg/kg	0.00148 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.221 mg/kg	0.0000172 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27 mg/kg	1.462	33.937 mg/kg	0.00339 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				35 mg/kg	1.126	33.889 mg/kg	0.00339 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	64 mg/kg	1.56	85.852 mg/kg	0.0055 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				1.7 mg/kg	1.353	1.979 mg/kg	0.000198 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				24 mg/kg	1.579	32.601 mg/kg	0.00326 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2 mg/kg	2.554	4.392 mg/kg	0.000439 %	✓	
	034-002-00-8									
11	zinc { zinc oxide }				74 mg/kg	1.245	79.214 mg/kg	0.00792 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0258 %		



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



Classification of sample: TP118

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

Sample details

Sample Name:	TP118	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	15%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }				19	mg/kg	1.32	21.323	mg/kg	0.00213 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.546	mg/kg	0.0000425 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31	mg/kg	1.462	38.512	mg/kg	0.00385 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				33	mg/kg	1.126	31.581	mg/kg	0.00316 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	58	mg/kg	1.56	76.899	mg/kg	0.00493 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.805	mg/kg	0.0000805 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				32	mg/kg	1.579	42.962	mg/kg	0.0043 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3	mg/kg	2.554	6.512	mg/kg	0.000651 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				88	mg/kg	1.245	93.105	mg/kg	0.00931 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0287 %		



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



Classification of sample: TP121

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

Sample details

Sample Name: TP121	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	14.933 mg/kg	0.00149 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.224 mg/kg	0.0000174 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35 mg/kg	1.462	44.504 mg/kg	0.00445 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	22.529 mg/kg	0.00225 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	29 mg/kg	1.56	39.354 mg/kg	0.00252 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.4 mg/kg	1.353	0.471 mg/kg	0.0000471 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				34 mg/kg	1.579	46.722 mg/kg	0.00467 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				63 mg/kg	1.245	68.223 mg/kg	0.00682 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0228 %		

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



Classification of sample: TP122

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

Sample details

Sample Name: TP122	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 12% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }				16 mg/kg	1.32	18.59 mg/kg	0.00186 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.339 mg/kg	0.0000264 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	41.157 mg/kg	0.00412 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	32.696 mg/kg	0.00327 %	✓	
7	lead { lead chromate }			1	59 mg/kg	1.56	80.986 mg/kg	0.00519 %	✓	
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.715 mg/kg	0.0000715 %	✓	
9	nickel { nickel dihydroxide }				32 mg/kg	1.579	44.479 mg/kg	0.00445 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				100 mg/kg	1.245	109.535 mg/kg	0.011 %	✓	
Total:								0.0304 %		



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



Classification of sample: TP123

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

Sample details

Sample Name:	TP123	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	11%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(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
	CLP index number	EC Number	CAS Number							
1	pH				5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	17.626 mg/kg	0.00176 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.343 mg/kg	0.0000267 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	41.625 mg/kg	0.00416 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				33 mg/kg	1.126	33.067 mg/kg	0.00331 %	✓	
7	lead { lead chromate }			1	84 mg/kg	1.56	116.612 mg/kg	0.00748 %	✓	
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.602 mg/kg	0.0000602 %	✓	
9	nickel { nickel dihydroxide }				34 mg/kg	1.579	47.796 mg/kg	0.00478 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.9 mg/kg	2.554	6.591 mg/kg	0.000659 %	✓	
11	zinc { zinc oxide }				75 mg/kg	1.245	83.085 mg/kg	0.00831 %	✓	
Total:								0.0308 %		



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



Classification of sample: TP124

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

Sample details

Sample Name: TP124	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number									
1	pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }				21	mg/kg	1.32	24.677	mg/kg	0.00247 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.458	mg/kg	0.0000356 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33	mg/kg	1.462	42.926	mg/kg	0.00429 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				53	mg/kg	1.126	53.108	mg/kg	0.00531 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	90	mg/kg	1.56	124.941	mg/kg	0.00801 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1.1	mg/kg	1.353	1.325	mg/kg	0.000133 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				35	mg/kg	1.579	49.201	mg/kg	0.00492 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.3	mg/kg	2.554	5.227	mg/kg	0.000523 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				110	mg/kg	1.245	121.857	mg/kg	0.0122 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0381 %		



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



Classification of sample: TP126

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

Sample details

Sample Name:	TP126	LoW Code:	
Sample Depth:	0.00-0.30 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.8%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 8.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }				17 mg/kg	1.32	20.47 mg/kg	0.00205 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.352 mg/kg	0.0000274 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	41.321 mg/kg	0.00413 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	32.858 mg/kg	0.00329 %	✓	
7	lead { lead chromate }			1	64 mg/kg	1.56	91.043 mg/kg	0.00584 %	✓	
8	mercury { mercury dichloride }				1.1 mg/kg	1.353	1.358 mg/kg	0.000136 %	✓	
9	nickel { nickel dihydroxide }				33 mg/kg	1.579	47.537 mg/kg	0.00475 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.7 mg/kg	2.554	6.288 mg/kg	0.000629 %	✓	
11	zinc { zinc oxide }				86 mg/kg	1.245	97.625 mg/kg	0.00976 %	✓	
Total:								0.0308 %		



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



Classification of sample: TP127

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

Sample details

Sample Name: TP127	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 1.00-1.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9.8% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 9.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
1	pH				7.1 pH		7.1	pH	7.1 pH		
2	arsenic { arsenic trioxide }				7.6 mg/kg	1.32	9.051	mg/kg	0.000905 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6								
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	47.46	mg/kg	0.00475 %	✓	
		215-160-9	1308-38-9								
6	copper { dicopper oxide; copper (I) oxide }				15 mg/kg	1.126	15.233	mg/kg	0.00152 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	13 mg/kg	1.56	18.29	mg/kg	0.00117 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
9	nickel { nickel dihydroxide }				40 mg/kg	1.579	56.988	mg/kg	0.0057 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]								
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8										
11	zinc { zinc oxide }				49 mg/kg	1.245	55.014	mg/kg	0.0055 %	✓	
	030-013-00-7	215-222-5	1314-13-2								
Total:									0.0201 %		



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



Classification of sample: TP131

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

Sample details

Sample Name: TP131	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 1.00-1.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				7.7 pH		7.7 pH	7.7 pH		
2	arsenic { arsenic trioxide }				11 mg/kg	1.32	12.055 mg/kg	0.00121 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.213 mg/kg	0.0000166 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				50 mg/kg	1.462	60.655 mg/kg	0.00607 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				28 mg/kg	1.126	26.166 mg/kg	0.00262 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	22 mg/kg	1.56	28.482 mg/kg	0.00183 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				51 mg/kg	1.579	66.86 mg/kg	0.00669 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				87 mg/kg	1.245	89.881 mg/kg	0.00899 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0279 %		

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



Classification of sample: TP205

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

Sample details

Sample Name:	LoW Code:	
TP205	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50-1.00 m		
Moisture content:		
23%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.4	pH		6.4	pH	6.4 pH		
2	arsenic { arsenic trioxide }				94	mg/kg	1.32	95.565	mg/kg	0.00956 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	1.7	mg/kg	1.285	1.682	mg/kg	0.000131 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41	mg/kg	1.462	46.141	mg/kg	0.00461 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				310	mg/kg	1.126	268.75	mg/kg	0.0269 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	830	mg/kg	1.56	996.878	mg/kg	0.0639 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1.3	mg/kg	1.353	1.355	mg/kg	0.000135 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				95	mg/kg	1.579	115.54	mg/kg	0.0116 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.9	mg/kg	2.554	5.702	mg/kg	0.00057 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				650	mg/kg	1.245	622.979	mg/kg	0.0623 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				0.5	mg/kg		0.385	mg/kg	0.0000385 %	✓	
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				0.26 mg/kg		0.2 mg/kg	0.00002 %	✓	
		201-695-5	86-73-7							
16	• phenanthrene				1.5 mg/kg		1.155 mg/kg	0.000116 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.58 mg/kg		0.447 mg/kg	0.0000447 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				2.7 mg/kg		2.079 mg/kg	0.000208 %	✓	
		205-912-4	206-44-0							
19	• pyrene				2.9 mg/kg		2.233 mg/kg	0.000223 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				3.2 mg/kg		2.464 mg/kg	0.000246 %	✓	
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				3.2 mg/kg		2.464 mg/kg	0.000246 %	✓	
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				10 mg/kg		7.7 mg/kg	0.00077 %	✓	
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				3.2 mg/kg		2.464 mg/kg	0.000246 %	✓	
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				12 mg/kg		9.24 mg/kg	0.000924 %	✓	
	601-032-00-3	200-028-5	50-32-8							
25	• indeno[123-cd]pyrene				6 mg/kg		4.62 mg/kg	0.000462 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				1.7 mg/kg		1.309 mg/kg	0.000131 %	✓	
	601-041-00-2	200-181-8	53-70-3							
27	• benzo[ghi]perylene				8 mg/kg		6.16 mg/kg	0.000616 %	✓	
		205-883-8	191-24-2							
28	asbestos				<		<	<		ND
	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							
Total:								0.184 %		

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



Classification of sample: TP206

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

Sample details

Sample Name: TP206	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.40-0.80 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 35% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 35% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.5	pH		6.5	pH	6.5 pH		
2	arsenic { arsenic trioxide }				100	mg/kg	1.32	85.821	mg/kg	0.00858 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	1	mg/kg	1.285	0.835	mg/kg	0.000065 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				49	mg/kg	1.462	46.551	mg/kg	0.00466 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				300	mg/kg	1.126	219.548	mg/kg	0.022 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	410	mg/kg	1.56	415.691	mg/kg	0.0266 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				2.6	mg/kg	1.353	2.287	mg/kg	0.000229 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				130	mg/kg	1.579	133.468	mg/kg	0.0133 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				610	mg/kg	1.245	493.529	mg/kg	0.0494 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				0.6	mg/kg		0.39	mg/kg	0.000039 %	✓	
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				1.1 mg/kg		0.715 mg/kg	0.0000715 %	✓	
		201-469-6	83-32-9							
15	• fluorene				0.85 mg/kg		0.553 mg/kg	0.0000553 %	✓	
		201-695-5	86-73-7							
16	• phenanthrene				6.5 mg/kg		4.225 mg/kg	0.000423 %	✓	
		201-581-5	85-01-8							
17	• anthracene				1.2 mg/kg		0.78 mg/kg	0.000078 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				7.3 mg/kg		4.745 mg/kg	0.000475 %	✓	
		205-912-4	206-44-0							
19	• pyrene				6.4 mg/kg		4.16 mg/kg	0.000416 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				4 mg/kg		2.6 mg/kg	0.00026 %	✓	
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				3.3 mg/kg		2.145 mg/kg	0.000215 %	✓	
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				3.4 mg/kg		2.21 mg/kg	0.000221 %	✓	
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				1.9 mg/kg		1.235 mg/kg	0.000124 %	✓	
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				3.1 mg/kg		2.015 mg/kg	0.000202 %	✓	
	601-032-00-3	200-028-5	50-32-8							
25	• indeno[123-cd]pyrene				1.6 mg/kg		1.04 mg/kg	0.000104 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				0.5 mg/kg		0.325 mg/kg	0.0000325 %	✓	
	601-041-00-2	200-181-8	53-70-3							
27	• benzo[ghi]perylene				1.8 mg/kg		1.17 mg/kg	0.000117 %	✓	
		205-883-8	191-24-2							
28	asbestos				<		<	<		ND
	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							
Total:								0.128 %		

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



Classification of sample: TP207

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

Sample details

Sample Name: TP207	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.40-0.60 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 24% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 24% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.5	pH		6.5	pH	6.5 pH		
2	arsenic { arsenic trioxide }				61	mg/kg	1.32	61.21	mg/kg	0.00612 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.8	mg/kg	1.285	0.781	mg/kg	0.0000608 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				37	mg/kg	1.462	41.099	mg/kg	0.00411 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				390	mg/kg	1.126	333.713	mg/kg	0.0334 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	420	mg/kg	1.56	497.893	mg/kg	0.0319 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.72	mg/kg	0.000072 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				74	mg/kg	1.579	88.831	mg/kg	0.00888 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				440	mg/kg	1.245	416.232	mg/kg	0.0416 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				1.1	mg/kg		0.836	mg/kg	0.0000836 %	✓	
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		2 mg/kg		1.52 mg/kg	0.000152 %	✓	
15	fluorene	201-695-5	86-73-7		1.8 mg/kg		1.368 mg/kg	0.000137 %	✓	
16	phenanthrene	201-581-5	85-01-8		15 mg/kg		11.4 mg/kg	0.00114 %	✓	
17	anthracene	204-371-1	120-12-7		3.7 mg/kg		2.812 mg/kg	0.000281 %	✓	
18	fluoranthene	205-912-4	206-44-0		17 mg/kg		12.92 mg/kg	0.00129 %	✓	
19	pyrene	204-927-3	129-00-0		15 mg/kg		11.4 mg/kg	0.00114 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		10 mg/kg		7.6 mg/kg	0.00076 %	✓	
21	chrysene	601-048-00-0	205-923-4		8.3 mg/kg		6.308 mg/kg	0.000631 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		8.8 mg/kg		6.688 mg/kg	0.000669 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		6.1 mg/kg		4.636 mg/kg	0.000464 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		8.9 mg/kg		6.764 mg/kg	0.000676 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		4.8 mg/kg		3.648 mg/kg	0.000365 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		1.3 mg/kg		0.988 mg/kg	0.0000988 %	✓	
27	benzo[ghi]perylene	205-883-8	191-24-2		4.8 mg/kg		3.648 mg/kg	0.000365 %	✓	
Total:								0.135 %		

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



Classification of sample: WS82

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

Sample details

Sample Name:	WS82	LoW Code:	
Sample Depth:	0.00-0.20 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	12%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				5.9	pH		5.9	pH	5.9 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	19.752	mg/kg	0.00198 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.339	mg/kg	0.0000264 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				29	mg/kg	1.462	37.299	mg/kg	0.00373 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				28	mg/kg	1.126	27.742	mg/kg	0.00277 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	56	mg/kg	1.56	76.868	mg/kg	0.00493 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.834	mg/kg	0.0000834 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				29	mg/kg	1.579	40.309	mg/kg	0.00403 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.4	mg/kg	2.554	5.393	mg/kg	0.000539 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				77	mg/kg	1.245	84.342	mg/kg	0.00843 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0268 %		



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



Classification of sample: WS83

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

Sample details

Sample Name:	WS83	LoW Code:	
Sample Depth:	0.00-0.20 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	8.2%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }				17 mg/kg	1.32	20.605 mg/kg	0.00206 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.354 mg/kg	0.0000275 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33 mg/kg	1.462	44.276 mg/kg	0.00443 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				49 mg/kg	1.126	50.645 mg/kg	0.00506 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	73 mg/kg	1.56	104.529 mg/kg	0.0067 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.7 mg/kg	1.353	0.87 mg/kg	0.000087 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				34 mg/kg	1.579	49.299 mg/kg	0.00493 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				100 mg/kg	1.245	114.265 mg/kg	0.0114 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0352 %		



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



Classification of sample: WS84

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

Sample details

Sample Name:	WS84	LoW Code:	
Sample Depth:	0.00-0.20 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	9.4%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.8	pH		5.8	pH	5.8 pH		
2	arsenic { arsenic trioxide }				22	mg/kg	1.32	26.317	mg/kg	0.00263 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.466	mg/kg	0.0000362 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35	mg/kg	1.462	46.346	mg/kg	0.00463 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				43	mg/kg	1.126	43.862	mg/kg	0.00439 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	88	mg/kg	1.56	124.361	mg/kg	0.00797 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1.9	mg/kg	1.353	2.33	mg/kg	0.000233 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				37	mg/kg	1.579	52.948	mg/kg	0.00529 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.5	mg/kg	2.554	5.784	mg/kg	0.000578 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				100	mg/kg	1.245	112.771	mg/kg	0.0113 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0373 %		



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



Classification of sample: WS85

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

Sample details

Sample Name:	WS85	LoW Code:	
Sample Depth:	0.30-0.40 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	13%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				17 mg/kg	1.32	19.528 mg/kg	0.00195 %	✓	
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	45.776 mg/kg	0.00458 %	✓	
6	copper { dicopper oxide; copper (I) oxide }				34 mg/kg	1.126	33.304 mg/kg	0.00333 %	✓	
7	lead { lead chromate }			1	59 mg/kg	1.56	80.065 mg/kg	0.00513 %	✓	
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.707 mg/kg	0.0000707 %	✓	
9	nickel { nickel dihydroxide }				37 mg/kg	1.579	50.844 mg/kg	0.00508 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }				110 mg/kg	1.245	119.119 mg/kg	0.0119 %	✓	
12	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
Total:								0.0327 %		



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



Classification of sample: WS86

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

Sample details

Sample Name: WS86	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 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
	CLP index number	EC Number	CAS Number									
1	pH				5.3	pH		5.3	pH	5.3 pH		
2	arsenic { arsenic trioxide }				14	mg/kg	1.32	16.451	mg/kg	0.00165 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.343	mg/kg	0.0000267 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33	mg/kg	1.462	42.926	mg/kg	0.00429 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				36	mg/kg	1.126	36.073	mg/kg	0.00361 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	66	mg/kg	1.56	91.624	mg/kg	0.00587 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1.2	mg/kg	1.353	1.446	mg/kg	0.000145 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				35	mg/kg	1.579	49.201	mg/kg	0.00492 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				84	mg/kg	1.245	93.055	mg/kg	0.00931 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0303 %		



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



Classification of sample: WS87

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

Sample details

Sample Name:	LoW Code:	
WS87	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.30-1.29 m		
Moisture content:		
33%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 33% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.3	pH		6.3	pH	6.3 pH		
			PH									
2	arsenic { arsenic trioxide }				76	mg/kg	1.32	67.231	mg/kg	0.00672 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	1.8	mg/kg	1.285	1.55	mg/kg	0.000121 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				40	mg/kg	1.462	39.17	mg/kg	0.00392 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				280	mg/kg	1.126	211.217	mg/kg	0.0211 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	350	mg/kg	1.56	365.777	mg/kg	0.0235 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				2.1	mg/kg	1.353	1.904	mg/kg	0.00019 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				86	mg/kg	1.579	91.011	mg/kg	0.0091 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				3.7	mg/kg	2.554	6.33	mg/kg	0.000633 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				750	mg/kg	1.245	625.469	mg/kg	0.0625 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				0.25	mg/kg		0.168	mg/kg	0.0000168 %	✓	
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				0.2	mg/kg		0.134	mg/kg	0.0000134 %	✓	
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				0.52 mg/kg		0.348 mg/kg	0.0000348 %	✓	
		201-469-6	83-32-9							
15	• fluorene				0.41 mg/kg		0.275 mg/kg	0.0000275 %	✓	
		201-695-5	86-73-7							
16	• phenanthrene				4.2 mg/kg		2.814 mg/kg	0.000281 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.82 mg/kg		0.549 mg/kg	0.0000549 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				6.8 mg/kg		4.556 mg/kg	0.000456 %	✓	
		205-912-4	206-44-0							
19	• pyrene				6.3 mg/kg		4.221 mg/kg	0.000422 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				4.4 mg/kg		2.948 mg/kg	0.000295 %	✓	
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				3.8 mg/kg		2.546 mg/kg	0.000255 %	✓	
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				4.4 mg/kg		2.948 mg/kg	0.000295 %	✓	
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				2.5 mg/kg		1.675 mg/kg	0.000168 %	✓	
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				4 mg/kg		2.68 mg/kg	0.000268 %	✓	
	601-032-00-3	200-028-5	50-32-8							
25	• indeno[123-cd]pyrene				2.3 mg/kg		1.541 mg/kg	0.000154 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				0.64 mg/kg		0.429 mg/kg	0.0000429 %	✓	
	601-041-00-2	200-181-8	53-70-3							
27	• benzo[ghi]perylene				2.3 mg/kg		1.541 mg/kg	0.000154 %	✓	
		205-883-8	191-24-2							
28	• TPH (C6 to C40) petroleum group				74 mg/kg		49.58 mg/kg	0.00496 %	✓	
			TPH							
29	benzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
30	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
31	• ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
Total:								0.136 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.




Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00496%)

Classification of sample: WS88


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

Sample details

Sample Name:	LoW Code:	
WS88	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
18%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.4 pH		5.4 pH	5.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		18 mg/kg	1.32	19.488 mg/kg	0.00195 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.5 mg/kg	1.285	0.527 mg/kg	0.000041 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	38.351 mg/kg	0.00384 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		40 mg/kg	1.126	36.929 mg/kg	0.00369 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	82 mg/kg	1.56	104.882 mg/kg	0.00672 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.666 mg/kg	0.0000666 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		32 mg/kg	1.579	41.446 mg/kg	0.00414 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			3 mg/kg	2.554	6.282 mg/kg	0.000628 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5		100 mg/kg	1.245	102.067 mg/kg	0.0102 %	✓	
Total:								0.0315 %		



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

Classification of sample: WS89

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

Sample details

Sample Name:	LoW Code:	
WS89	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
17%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.7 pH		5.7 pH	5.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	15 mg/kg	1.32	16.438 mg/kg	0.00164 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.3 mg/kg	1.285	0.32 mg/kg	0.0000249 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	39 mg/kg	1.462	47.311 mg/kg	0.00473 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	24 mg/kg	1.126	22.428 mg/kg	0.00224 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	36 mg/kg	1.56	46.607 mg/kg	0.00299 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.5 mg/kg	1.353	0.562 mg/kg	0.0000562 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	37 mg/kg	1.579	48.506 mg/kg	0.00485 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	76 mg/kg	1.245	78.517 mg/kg	0.00785 %	✓	
Total:								0.0249 %		



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



Classification of sample: WS91

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

Sample details

Sample Name:	LoW Code:	
WS91	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }				21 mg/kg	1.32	24.122 mg/kg	0.00241 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				41 mg/kg	1.462	52.134 mg/kg	0.00521 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	28.406 mg/kg	0.00284 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	44 mg/kg	1.56	59.71 mg/kg	0.00383 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.7 mg/kg	1.353	0.824 mg/kg	0.0000824 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				38 mg/kg	1.579	52.218 mg/kg	0.00522 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				78 mg/kg	1.245	84.466 mg/kg	0.00845 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0286 %		



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

Classification of sample: WS98

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

Sample details

Sample Name:	LoW Code:	
WS98	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
22%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 22% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.7 pH		6.7 pH	6.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	19.567 mg/kg	0.00196 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.5 mg/kg	1.285	0.501 mg/kg	0.000039 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		1.3 mg/kg	1.923	1.95 mg/kg	0.000195 %	✔	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		40 mg/kg	1.462	45.601 mg/kg	0.00456 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		34 mg/kg	1.126	29.859 mg/kg	0.00299 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	41 mg/kg	1.56	49.883 mg/kg	0.0032 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.633 mg/kg	0.0000633 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		42 mg/kg	1.579	51.744 mg/kg	0.00517 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			3.5 mg/kg	2.554	6.971 mg/kg	0.000697 %	✔	
11	zinc { zinc oxide }	030-013-00-7	215-222-5		80 mg/kg	1.245	77.67 mg/kg	0.00777 %	✔	
Total:								0.0266 %		



Key

-
- User supplied data
 - 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
- CLP: Note 1 Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00019%)

Classification of sample: WS99

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

Sample details

Sample Name:	LoW Code:	
WS99	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.60 m		
Moisture content:		
9.8%		
(wet weight correction)		

Hazard properties

None identified

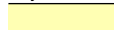



Determinands

Moisture content: 9.8% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.2 pH		6.2 pH	6.2 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		10 mg/kg	1.32	11.909 mg/kg	0.00119 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	42.186 mg/kg	0.00422 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		21 mg/kg	1.126	21.327 mg/kg	0.00213 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	39 mg/kg	1.56	54.871 mg/kg	0.00352 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.4 mg/kg	1.353	0.488 mg/kg	0.0000488 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		26 mg/kg	1.579	37.042 mg/kg	0.0037 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		70 mg/kg	1.245	78.591 mg/kg	0.00786 %	✓	
Total:								0.0232 %		



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

Classification of sample: WS100


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

Sample details

Sample Name:	LoW Code:	
WS100	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
7.1%		
(wet weight correction)		

Hazard properties

None identified

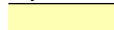



Determinands

Moisture content: 7.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		12 mg/kg	1.32	14.719 mg/kg	0.00147 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.239 mg/kg	0.0000186 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		38 mg/kg	1.462	51.596 mg/kg	0.00516 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		27 mg/kg	1.126	28.241 mg/kg	0.00282 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	42 mg/kg	1.56	60.861 mg/kg	0.0039 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.629 mg/kg	0.0000629 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	45.488 mg/kg	0.00455 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			2.1 mg/kg	2.554	4.982 mg/kg	0.000498 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5		66 mg/kg	1.245	76.318 mg/kg	0.00763 %	✓	
Total:								0.0263 %		



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



Classification of sample: TP133

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

Sample details

Sample Name: TP133	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 22% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 22% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.5 pH		6.5 pH	6.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		7.1 mg/kg	1.32	7.312 mg/kg	0.000731 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.301 mg/kg	0.0000234 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		21 mg/kg	1.462	23.94 mg/kg	0.00239 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		31 mg/kg	1.126	27.224 mg/kg	0.00272 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	51 mg/kg	1.56	62.049 mg/kg	0.00398 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.633 mg/kg	0.0000633 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		18 mg/kg	1.579	22.176 mg/kg	0.00222 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		62 mg/kg	1.245	60.194 mg/kg	0.00602 %	✓	
12	asbestos	650-013-00-6	-----		<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0186 %		

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



Classification of sample: TP136

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

Sample details

Sample Name: TP136	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		11 mg/kg	1.32	12.2 mg/kg	0.00122 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.324 mg/kg	0.0000252 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		25 mg/kg	1.462	30.693 mg/kg	0.00307 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		31 mg/kg	1.126	29.318 mg/kg	0.00293 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	53 mg/kg	1.56	69.443 mg/kg	0.00445 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.6 mg/kg	1.353	0.682 mg/kg	0.0000682 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		22 mg/kg	1.579	29.189 mg/kg	0.00292 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			2.5 mg/kg	2.554	5.363 mg/kg	0.000536 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5		75 mg/kg	1.245	78.417 mg/kg	0.00784 %	✓	
Total:								0.0233 %		



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

Classification of sample: TP137

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

Sample details

Sample Name: TP137	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				5.7	pH		5.7	pH	5.7 pH		
2	arsenic { arsenic trioxide }				15	mg/kg	1.32	16.438	mg/kg	0.00164 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32	mg/kg	1.462	38.819	mg/kg	0.00388 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				29	mg/kg	1.126	27.1	mg/kg	0.00271 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	49	mg/kg	1.56	63.438	mg/kg	0.00407 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				26	mg/kg	1.579	34.086	mg/kg	0.00341 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				62	mg/kg	1.245	64.053	mg/kg	0.00641 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0227 %		

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



Classification of sample: TP139

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

Sample details

Sample Name:	LoW Code:	
TP139	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
20%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				12	mg/kg	1.32	12.675	mg/kg	0.00127 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.308	mg/kg	0.000024 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				26	mg/kg	1.462	30.4	mg/kg	0.00304 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				34	mg/kg	1.126	30.624	mg/kg	0.00306 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	61	mg/kg	1.56	76.119	mg/kg	0.00488 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.758	mg/kg	0.0000758 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				21	mg/kg	1.579	26.536	mg/kg	0.00265 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				75	mg/kg	1.245	74.683	mg/kg	0.00747 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.023 %		



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



Classification of sample: TP141

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

Sample details

Sample Name: TP141	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.30-0.45 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.6 mg/kg	1.32	6.359 mg/kg	0.000636 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	28 mg/kg	1.462	35.194 mg/kg	0.00352 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	22 mg/kg	1.126	21.302 mg/kg	0.00213 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	19 mg/kg	1.56	25.487 mg/kg	0.00163 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	16 mg/kg	1.579	21.734 mg/kg	0.00217 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	20 mg/kg	1.245	21.409 mg/kg	0.00214 %	✓	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0128 %		

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



Classification of sample: TP142

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

Sample details

Sample Name: TP142	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 38% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 38% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		10 mg/kg	1.32	8.186 mg/kg	0.000819 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.159 mg/kg	0.0000124 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		39 mg/kg	1.462	35.34 mg/kg	0.00353 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		35 mg/kg	1.126	24.432 mg/kg	0.00244 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	24 mg/kg	1.56	23.21 mg/kg	0.00149 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		29 mg/kg	1.579	28.399 mg/kg	0.00284 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		32 mg/kg	1.245	24.695 mg/kg	0.00247 %	✓	
Total:								0.0141 %		



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



Classification of sample: TP144

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

Sample details

Sample Name: TP144	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 10% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	15.448 mg/kg	0.00154 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		26 mg/kg	1.462	34.2 mg/kg	0.00342 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		38 mg/kg	1.126	38.505 mg/kg	0.00385 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	84 mg/kg	1.56	117.922 mg/kg	0.00756 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		23 mg/kg	1.579	32.696 mg/kg	0.00327 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		75 mg/kg	1.245	84.018 mg/kg	0.0084 %	✓	
Total:								0.0286 %		



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



Classification of sample: TP145

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

Sample details

Sample Name: TP145	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.28 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 10% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				13	mg/kg	1.32	15.448	mg/kg	0.00154 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30	mg/kg	1.462	39.462	mg/kg	0.00395 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				32	mg/kg	1.126	32.426	mg/kg	0.00324 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	88	mg/kg	1.56	123.537	mg/kg	0.00792 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.4	mg/kg	1.353	0.487	mg/kg	0.0000487 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				28	mg/kg	1.579	39.803	mg/kg	0.00398 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				2.1	mg/kg	2.554	4.826	mg/kg	0.000483 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				57	mg/kg	1.245	63.854	mg/kg	0.00639 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0278 %		

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



Classification of sample: TP147

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

Sample details

Sample Name: TP147	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.32 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 13% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17 mg/kg	1.32	19.528 mg/kg	0.00195 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	32 mg/kg	1.462	40.69 mg/kg	0.00407 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	46 mg/kg	1.126	45.058 mg/kg	0.00451 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	78 mg/kg	1.56	105.849 mg/kg	0.00679 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.7 mg/kg	1.353	0.824 mg/kg	0.0000824 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	31 mg/kg	1.579	42.599 mg/kg	0.00426 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			2.4 mg/kg	2.554	5.332 mg/kg	0.000533 %	✓	
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	95 mg/kg	1.245	102.876 mg/kg	0.0103 %	✓	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0327 %		

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

Classification of sample: TP149


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

Sample details

Sample Name:	LoW Code:	
TP149	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
10%		
(wet weight correction)		

Hazard properties

None identified

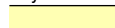



Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.5 pH		5.5 pH	5.5 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		12 mg/kg	1.32	14.26 mg/kg	0.00143 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	46.039 mg/kg	0.0046 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		31 mg/kg	1.126	31.412 mg/kg	0.00314 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	54 mg/kg	1.56	75.807 mg/kg	0.00486 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.4 mg/kg	1.353	0.487 mg/kg	0.0000487 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	44.068 mg/kg	0.00441 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		73 mg/kg	1.245	81.778 mg/kg	0.00818 %	✓	
Total:								0.0272 %		



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

Classification of sample: TP150

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

Sample details

Sample Name:	LoW Code:	
TP150	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
17%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		17 mg/kg	1.32	18.63 mg/kg	0.00186 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.32 mg/kg	0.0000249 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	42.458 mg/kg	0.00425 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		41 mg/kg	1.126	38.314 mg/kg	0.00383 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	75 mg/kg	1.56	97.098 mg/kg	0.00622 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		30 mg/kg	1.579	39.33 mg/kg	0.00393 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		94 mg/kg	1.245	97.113 mg/kg	0.00971 %	✓	
Total:								0.0304 %		



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



Classification of sample: TP151

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

Sample details

Sample Name:	LoW Code:	
TP151	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
12%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.7 pH		7.7 pH	7.7 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	14 mg/kg	1.32	16.266 mg/kg	0.00163 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.4 mg/kg	1.285	0.452 mg/kg	0.0000352 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	26 mg/kg	1.462	33.44 mg/kg	0.00334 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	33 mg/kg	1.126	32.696 mg/kg	0.00327 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	63 mg/kg	1.56	86.476 mg/kg	0.00554 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.6 mg/kg	1.353	0.715 mg/kg	0.0000715 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	23 mg/kg	1.579	31.969 mg/kg	0.0032 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	150 mg/kg	1.245	164.302 mg/kg	0.0164 %	✔	
12	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1	208-96-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.45 mg/kg		0.396 mg/kg	0.0000396 %	✓	
19	pyrene	204-927-3	129-00-0		0.41 mg/kg		0.361 mg/kg	0.0000361 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.26 mg/kg		0.229 mg/kg	0.0000229 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.26 mg/kg		0.229 mg/kg	0.0000229 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.36 mg/kg		0.317 mg/kg	0.0000317 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.26 mg/kg		0.229 mg/kg	0.0000229 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.36 mg/kg		0.317 mg/kg	0.0000317 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0343 %		

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



Classification of sample: TP152

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

Sample details

Sample Name:	LoW Code:	
TP152	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.80-1.00 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		8.2 pH		8.2 pH	8.2 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		6.2 mg/kg	1.32	7.122 mg/kg	0.000712 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		39 mg/kg	1.462	49.591 mg/kg	0.00496 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		22 mg/kg	1.126	21.55 mg/kg	0.00215 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	10 mg/kg	1.56	13.57 mg/kg	0.00087 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		42 mg/kg	1.579	57.715 mg/kg	0.00577 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		52 mg/kg	1.245	56.311 mg/kg	0.00563 %	✔	
Total:								0.0206 %		



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



Classification of sample: TP155

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

Sample details

Sample Name:	LoW Code:	
TP155	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
12%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	5.4 mg/kg	1.32	6.274 mg/kg	0.000627 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	31 mg/kg	1.462	39.871 mg/kg	0.00399 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	15 mg/kg	1.126	14.862 mg/kg	0.00149 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	15 mg/kg	1.56	20.59 mg/kg	0.00132 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	27 mg/kg	1.579	37.529 mg/kg	0.00375 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	83 mg/kg	1.245	90.914 mg/kg	0.00909 %	✔	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0208 %		

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



Classification of sample: TP156

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

Sample details

Sample Name: TP156	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	21.072 mg/kg	0.00211 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.324 mg/kg	0.0000252 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	42.97 mg/kg	0.0043 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		54 mg/kg	1.126	51.07 mg/kg	0.00511 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	120 mg/kg	1.56	157.229 mg/kg	0.0101 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.7 mg/kg	1.353	0.796 mg/kg	0.0000796 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		33 mg/kg	1.579	43.784 mg/kg	0.00438 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		90 mg/kg	1.245	94.1 mg/kg	0.00941 %	✓	
Total:								0.036 %		



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



Classification of sample: TP157

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

Sample details

Sample Name:	LoW Code:	
TP157	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
19%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7 pH		7 pH	7pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		15 mg/kg	1.32	16.042 mg/kg	0.0016 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		29 mg/kg	1.462	34.332 mg/kg	0.00343 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		39 mg/kg	1.126	35.567 mg/kg	0.00356 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	56 mg/kg	1.56	70.753 mg/kg	0.00454 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.548 mg/kg	0.0000548 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		26 mg/kg	1.579	33.264 mg/kg	0.00333 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		58 mg/kg	1.245	58.477 mg/kg	0.00585 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.0229 %		

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

Classification of sample: TP160


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

Sample details

Sample Name:	LoW Code:	
TP160	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number									
1	pH				6.5	pH		6.5	pH	6.5 pH		
2	arsenic { arsenic trioxide }				7.2	mg/kg	1.32	8.461	mg/kg	0.000846 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				1.3	mg/kg	1.923	2.225	mg/kg	0.000223 %	✓	
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				24	mg/kg	1.462	31.219	mg/kg	0.00312 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				18	mg/kg	1.126	18.037	mg/kg	0.0018 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	26	mg/kg	1.56	36.094	mg/kg	0.00231 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				22	mg/kg	1.579	30.927	mg/kg	0.00309 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				36	mg/kg	1.245	39.881	mg/kg	0.00399 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	M/C Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
19	pyrene	204-927-3	129-00-0		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	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		<		<	<		ND
Total:								0.0158 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00022%)



Classification of sample: TP161

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

Sample details

Sample Name:	LoW Code:	
TP161	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
13%		
(wet weight correction)		

Hazard properties

None identified

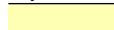



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH				6.8 pH		6.8 pH	6.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		7.4 mg/kg	1.32	8.5 mg/kg	0.00085 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		23 mg/kg	1.462	29.246 mg/kg	0.00292 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		21 mg/kg	1.126	20.57 mg/kg	0.00206 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	37 mg/kg	1.56	50.21 mg/kg	0.00322 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.3 mg/kg	1.353	0.353 mg/kg	0.0000353 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		19 mg/kg	1.579	26.109 mg/kg	0.00261 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		42 mg/kg	1.245	45.482 mg/kg	0.00455 %	✓	
Total:								0.0168 %		



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



Classification of sample: TP163

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

Sample details

Sample Name:	LoW Code:	
TP163	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				5.8	pH		5.8	pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		21	mg/kg	1.32	23.845	mg/kg	0.00238 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33	mg/kg	1.462	41.479	mg/kg	0.00415 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		54	mg/kg	1.126	52.286	mg/kg	0.00523 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	170	mg/kg	1.56	228.045	mg/kg	0.0146 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.8	mg/kg	1.353	0.931	mg/kg	0.0000931 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		29	mg/kg	1.579	39.393	mg/kg	0.00394 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		85	mg/kg	1.245	90.989	mg/kg	0.0091 %	✓	
Total:										0.04 %		



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

Classification of sample: TP165

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

Sample details

Sample Name: TP165	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	13 mg/kg	1.32	14.418 mg/kg	0.00144 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	33 mg/kg	1.462	40.514 mg/kg	0.00405 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	32 mg/kg	1.126	30.264 mg/kg	0.00303 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	54 mg/kg	1.56	70.753 mg/kg	0.00454 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	30 mg/kg	1.579	39.803 mg/kg	0.00398 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	69 mg/kg	1.245	72.144 mg/kg	0.00721 %	✔	
Total:								0.0248 %		



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



Classification of sample: TP166

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

Sample details

Sample Name: TP166	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.50 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 6.4% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 6.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.8 pH		6.8 pH	6.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		1.4 mg/kg	1.32	1.73 mg/kg	0.000173 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		12 mg/kg	1.462	16.416 mg/kg	0.00164 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		5.8 mg/kg	1.126	6.112 mg/kg	0.000611 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	4.7 mg/kg	1.56	6.862 mg/kg	0.00044 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		8.2 mg/kg	1.579	12.123 mg/kg	0.00121 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		14 mg/kg	1.245	16.311 mg/kg	0.00163 %	✔	
Total:								0.00626 %		



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

Classification of sample: TP167

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

Sample details

Sample Name:	LoW Code:	
TP167	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
19%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7 pH		7 pH	7pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	16 mg/kg	1.32	17.111 mg/kg	0.00171 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.2 mg/kg	1.285	0.208 mg/kg	0.0000162 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	40 mg/kg	1.462	47.354 mg/kg	0.00474 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	44 mg/kg	1.126	40.127 mg/kg	0.00401 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	69 mg/kg	1.56	87.178 mg/kg	0.00559 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.5 mg/kg	1.353	0.548 mg/kg	0.0000548 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	33 mg/kg	1.579	42.22 mg/kg	0.00422 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	110 mg/kg	1.245	110.904 mg/kg	0.0111 %	✓	
12	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1	208-96-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.22 mg/kg		0.178 mg/kg	0.0000178 %	✓	
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.27 mg/kg		0.219 mg/kg	0.0000219 %	✓	
19	pyrene	204-927-3	129-00-0		0.27 mg/kg		0.219 mg/kg	0.0000219 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
Total:								0.032 %		

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

Classification of sample: TP168

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

Sample details

Sample Name:	LoW Code:	
TP168	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.4 pH		7.4 pH	7.4 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	14.59 mg/kg	0.00146 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		34 mg/kg	1.462	42.239 mg/kg	0.00422 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		35 mg/kg	1.126	33.495 mg/kg	0.00335 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	57 mg/kg	1.56	75.573 mg/kg	0.00485 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.575 mg/kg	0.0000575 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	41.62 mg/kg	0.00416 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		67 mg/kg	1.245	70.886 mg/kg	0.00709 %	✓	
12	asbestos	650-013-00-6	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6		<		<	<		ND




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0257 %		

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

Classification of sample: TP169


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

Sample details

Sample Name:	LoW Code:	
TP169	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.40-1.00 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				8.3 pH		8.3 pH	8.3 pH		
2	arsenic { arsenic trioxide }				7 mg/kg	1.32	8.041 mg/kg	0.000804 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42 mg/kg	1.462	53.405 mg/kg	0.00534 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	22.529 mg/kg	0.00225 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	11 mg/kg	1.56	14.927 mg/kg	0.000957 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				41 mg/kg	1.579	56.341 mg/kg	0.00563 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				50 mg/kg	1.245	54.145 mg/kg	0.00541 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0209 %		

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

Classification of sample: TP187


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

Sample details

Sample Name:	LoW Code:	
TP187	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
17%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7 pH		7 pH	7pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		9.5 mg/kg	1.32	10.411 mg/kg	0.00104 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		2.4 mg/kg	1.923	3.831 mg/kg	0.000383 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		26 mg/kg	1.462	31.54 mg/kg	0.00315 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		22 mg/kg	1.126	20.559 mg/kg	0.00206 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	35 mg/kg	1.56	45.313 mg/kg	0.00291 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		23 mg/kg	1.579	30.153 mg/kg	0.00302 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		50 mg/kg	1.245	51.656 mg/kg	0.00517 %	✓	
12	naphthalene	601-052-00-2	202-049-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.26 mg/kg		0.216 mg/kg	0.0000216 %	✓	
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.38 mg/kg		0.315 mg/kg	0.0000315 %	✓	
19	pyrene	204-927-3	129-00-0		0.36 mg/kg		0.299 mg/kg	0.0000299 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
21	chrysene	601-048-00-0	205-923-4	218-01-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
25	indeno[123-cd]pyrene	205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
28	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		<		<	<		ND
Total:								0.0182 %		

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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"
Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00038%)



Classification of sample: SA06

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

Sample details

Sample Name:	SA06	LoW Code:	
Sample Depth:	0.00-0.40 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	10% (wet weight correction)	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

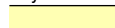



Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.3 pH		7.3 pH	7.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	16 mg/kg	1.32	19.013 mg/kg	0.0019 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.4 mg/kg	1.285	0.463 mg/kg	0.000036 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	37 mg/kg	1.462	48.67 mg/kg	0.00487 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	45 mg/kg	1.126	45.598 mg/kg	0.00456 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	64 mg/kg	1.56	89.845 mg/kg	0.00576 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	0.8 mg/kg	1.353	0.975 mg/kg	0.0000975 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	30 mg/kg	1.579	42.646 mg/kg	0.00426 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	83 mg/kg	1.245	92.98 mg/kg	0.0093 %	✔	
Total:								0.0313 %		



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



Classification of sample: SA08

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

Sample details

Sample Name: SA08	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.50 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9.9% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.9% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.6 pH		7.6 pH	7.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		4.4 mg/kg	1.32	5.234 mg/kg	0.000523 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		34 mg/kg	1.462	44.773 mg/kg	0.00448 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		14 mg/kg	1.126	14.202 mg/kg	0.00142 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	14 mg/kg	1.56	19.676 mg/kg	0.00126 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		29 mg/kg	1.579	41.271 mg/kg	0.00413 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		39 mg/kg	1.245	43.738 mg/kg	0.00437 %	✓	
Total:								0.0167 %		



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

Classification of sample: WS101


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

Sample details

Sample Name:	LoW Code:	
WS101	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.35 m		
Moisture content:		
8%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.1 pH		6.1 pH	6.1 pH		
2	arsenic { arsenic trioxide }				25 mg/kg	1.32	30.367 mg/kg	0.00304 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.355 mg/kg	0.0000276 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	41.684 mg/kg	0.00417 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				66 mg/kg	1.126	68.364 mg/kg	0.00684 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	73 mg/kg	1.56	104.757 mg/kg	0.00672 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				38 mg/kg	1.579	55.219 mg/kg	0.00552 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				96 mg/kg	1.245	109.933 mg/kg	0.011 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0378 %		



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

Classification of sample: WS102

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

Sample details

Sample Name:	LoW Code:	
WS102	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.35 m		
Moisture content:		
9.2%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }				12 mg/kg	1.32	14.386 mg/kg	0.00144 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.35 mg/kg	0.0000272 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	42.467 mg/kg	0.00425 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				32 mg/kg	1.126	32.714 mg/kg	0.00327 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	45 mg/kg	1.56	63.734 mg/kg	0.00409 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				28 mg/kg	1.579	40.157 mg/kg	0.00402 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				84 mg/kg	1.245	94.937 mg/kg	0.00949 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0271 %		



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



Classification of sample: WS104

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

Sample details

Sample Name:	LoW Code:	
WS104	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.30-1.00 m		
Moisture content:		
16%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		8 pH		8 pH	8pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		7.3 mg/kg	1.32	8.096 mg/kg	0.00081 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		44 mg/kg	1.462	54.019 mg/kg	0.0054 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		28 mg/kg	1.126	26.481 mg/kg	0.00265 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	18 mg/kg	1.56	23.584 mg/kg	0.00151 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		50 mg/kg	1.579	66.339 mg/kg	0.00663 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		66 mg/kg	1.245	69.007 mg/kg	0.0069 %	✓	
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



Classification of sample: WS106

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

Sample details

Sample Name:	LoW Code:	
WS106	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
10%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	17 mg/kg	1.32	20.201 mg/kg	0.00202 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.2 mg/kg	1.285	0.231 mg/kg	0.000018 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	35 mg/kg	1.462	46.039 mg/kg	0.0046 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	40 mg/kg	1.126	40.532 mg/kg	0.00405 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	85 mg/kg	1.56	119.326 mg/kg	0.00765 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	29 mg/kg	1.579	41.225 mg/kg	0.00412 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	76 mg/kg	1.245	85.138 mg/kg	0.00851 %	✔	
12	naphthalene	601-052-00-2	202-049-5	91-20-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	acenaphthylene		205-917-1	208-96-8	0.27 mg/kg		0.243 mg/kg	0.0000243 %	✔	



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				0.29 mg/kg		0.261 mg/kg	0.0000261 %	✓	
		201-695-5	86-73-7							
16	• phenanthrene				3.1 mg/kg		2.79 mg/kg	0.000279 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.82 mg/kg		0.738 mg/kg	0.0000738 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				3.4 mg/kg		3.06 mg/kg	0.000306 %	✓	
		205-912-4	206-44-0							
19	• pyrene				3.1 mg/kg		2.79 mg/kg	0.000279 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				1.9 mg/kg		1.71 mg/kg	0.000171 %	✓	
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				1.2 mg/kg		1.08 mg/kg	0.000108 %	✓	
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				1.8 mg/kg		1.62 mg/kg	0.000162 %	✓	
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				0.5 mg/kg		0.45 mg/kg	0.000045 %	✓	
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				1.4 mg/kg		1.26 mg/kg	0.000126 %	✓	
	601-032-00-3	200-028-5	50-32-8							
25	• indeno[123-cd]pyrene				0.69 mg/kg		0.621 mg/kg	0.0000621 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				0.24 mg/kg		0.216 mg/kg	0.0000216 %	✓	
	601-041-00-2	200-181-8	53-70-3							
27	• benzo[ghi]perylene				0.85 mg/kg		0.765 mg/kg	0.0000765 %	✓	
		205-883-8	191-24-2							
Total:								0.0333 %		

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



Classification of sample: WS107

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

Sample details

Sample Name:	LoW Code:	
WS107	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.25 m		
Moisture content:		
8.2%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }				13 mg/kg	1.32	15.757 mg/kg	0.00158 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.354 mg/kg	0.0000275 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35 mg/kg	1.462	46.96 mg/kg	0.0047 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				29 mg/kg	1.126	29.973 mg/kg	0.003 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	54 mg/kg	1.56	77.323 mg/kg	0.00496 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.621 mg/kg	0.0000621 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				25 mg/kg	1.579	36.25 mg/kg	0.00362 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				140 mg/kg	1.245	159.971 mg/kg	0.016 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0344 %		



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



Classification of sample: WS109

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

Sample details

Sample Name:	LoW Code:	
WS109	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.38 m		
Moisture content:		
10%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.7	pH		6.7	pH	6.7 pH		
2	arsenic { arsenic trioxide }				13	mg/kg	1.32	15.448	mg/kg	0.00154 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.347	mg/kg	0.000027 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31	mg/kg	1.462	40.777	mg/kg	0.00408 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				29	mg/kg	1.126	29.386	mg/kg	0.00294 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	46	mg/kg	1.56	64.576	mg/kg	0.00414 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				28	mg/kg	1.579	39.803	mg/kg	0.00398 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				69	mg/kg	1.245	77.297	mg/kg	0.00773 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.025 %		



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



Classification of sample: WS110

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

Sample details

Sample Name:	LoW Code:	
WS110	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.23 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	16 mg/kg	1.32	18.168 mg/kg	0.00182 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	29 mg/kg	1.462	36.451 mg/kg	0.00365 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	30 mg/kg	1.126	29.048 mg/kg	0.0029 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	80 mg/kg	1.56	107.315 mg/kg	0.00688 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	27 mg/kg	1.579	36.676 mg/kg	0.00367 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	91 mg/kg	1.245	97.411 mg/kg	0.00974 %	✔	
Total:								0.0292 %		



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

Classification of sample: WS112


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

Sample details

Sample Name:	LoW Code:	
WS112	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
8.2%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.2% Wet Weight Moisture Correction applied (MC)


#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1			PH		7.1 pH		7.1 pH	7.1 pH		
2	033-003-00-0	215-481-4	arsenic { arsenic trioxide } 1327-53-3		12 mg/kg	1.32	14.545 mg/kg	0.00145 %	✓	
3	048-010-00-4	215-147-8	cadmium { cadmium sulfide } 1306-23-6	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	024-001-00-0	215-607-8	chromium in chromium(VI) compounds { chromium(VI) oxide } 1333-82-0		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5		215-160-9	chromium in chromium(III) compounds { chromium(III) oxide (worst case) } 1308-38-9		34 mg/kg	1.462	45.618 mg/kg	0.00456 %	✓	
6	029-002-00-X	215-270-7	copper { dicopper oxide; copper (I) oxide } 1317-39-1		36 mg/kg	1.126	37.208 mg/kg	0.00372 %	✓	
7	082-004-00-2	231-846-0	lead { lead chromate } 7758-97-6	1	61 mg/kg	1.56	87.347 mg/kg	0.0056 %	✓	
8	080-010-00-X	231-299-8	mercury { mercury dichloride } 7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	028-008-00-X	235-008-5 [1] 234-348-1 [2]	nickel { nickel dihydroxide } 12054-48-7 [1] 11113-74-9 [2]		28 mg/kg	1.579	40.599 mg/kg	0.00406 %	✓	
10	034-002-00-8		selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	030-013-00-7	215-222-5	zinc { zinc oxide } 1314-13-2		76 mg/kg	1.245	86.841 mg/kg	0.00868 %	✓	
Total:								0.0286 %		



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

Classification of sample: WS113


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

Sample details

Sample Name: WS113 Sample Depth: 0.00-0.46 m Moisture content: 8.4% (wet weight correction)	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
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Hazard properties

None identified

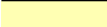



Determinands

Moisture content: 8.4% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.8	pH		6.8	pH	6.8 pH		
2	arsenic { arsenic trioxide }				23	mg/kg	1.32	27.817	mg/kg	0.00278 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.353	mg/kg	0.0000275 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				34	mg/kg	1.462	45.519	mg/kg	0.00455 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				63	mg/kg	1.126	64.973	mg/kg	0.0065 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	93	mg/kg	1.56	132.878	mg/kg	0.00852 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				30	mg/kg	1.579	43.405	mg/kg	0.00434 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				84	mg/kg	1.245	95.773	mg/kg	0.00958 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0368 %		



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

Classification of sample: WS115

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

Sample details

Sample Name:	LoW Code:	
WS115	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
9.6%		
(wet weight correction)		

Hazard properties

None identified

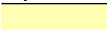



Determinands

Moisture content: 9.6% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.8 pH		5.8 pH	5.8 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	15.516 mg/kg	0.00155 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33 mg/kg	1.462	43.601 mg/kg	0.00436 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		35 mg/kg	1.126	35.623 mg/kg	0.00356 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	66 mg/kg	1.56	93.065 mg/kg	0.00597 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		27 mg/kg	1.579	38.552 mg/kg	0.00386 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		67 mg/kg	1.245	75.39 mg/kg	0.00754 %	✓	
Total:								0.0274 %		



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



Classification of sample: WS117

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

Sample details

Sample Name:	LoW Code:	
WS117	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.30-1.00 m		
Moisture content:		
10%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.9 pH		6.9 pH	6.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		2 mg/kg	1.32	2.377 mg/kg	0.000238 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		14 mg/kg	1.462	18.416 mg/kg	0.00184 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		8.4 mg/kg	1.126	8.512 mg/kg	0.000851 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	5.6 mg/kg	1.56	7.861 mg/kg	0.000504 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		23 mg/kg	1.579	32.696 mg/kg	0.00327 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		20 mg/kg	1.245	22.405 mg/kg	0.00224 %	✓	
Total:								0.00949 %		



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

Classification of sample: WS119

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

Sample details

Sample Name:	LoW Code:	
WS119	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.38 m		
Moisture content:		
8.9%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6.5 pH		6.5 pH	6.5 pH		
2	arsenic { arsenic trioxide }				16 mg/kg	1.32	19.245 mg/kg	0.00192 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.2 mg/kg	1.285	0.234 mg/kg	0.0000182 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				29 mg/kg	1.462	38.613 mg/kg	0.00386 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				48 mg/kg	1.126	49.233 mg/kg	0.00492 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	82 mg/kg	1.56	116.521 mg/kg	0.00747 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				25 mg/kg	1.579	35.973 mg/kg	0.0036 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				83 mg/kg	1.245	94.117 mg/kg	0.00941 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0317 %		



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

Classification of sample: WS121

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

Sample details

Sample Name:	LoW Code:	
WS121	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.50 m		
Moisture content:		
10%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.8	pH		6.8	pH	6.8 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	20.201	mg/kg	0.00202 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.2	mg/kg	1.285	0.231	mg/kg	0.000018 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30	mg/kg	1.462	39.462	mg/kg	0.00395 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				56	mg/kg	1.126	56.745	mg/kg	0.00567 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	72	mg/kg	1.56	101.076	mg/kg	0.00648 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				27	mg/kg	1.579	38.382	mg/kg	0.00384 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				93	mg/kg	1.245	104.183	mg/kg	0.0104 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.8 mg/kg		0.72 mg/kg	0.000072 %	✓	
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.84 mg/kg		0.756 mg/kg	0.0000756 %	✓	
19	pyrene	204-927-3	129-00-0		0.81 mg/kg		0.729 mg/kg	0.0000729 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.5 mg/kg		0.45 mg/kg	0.000045 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.46 mg/kg		0.414 mg/kg	0.0000414 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.62 mg/kg		0.558 mg/kg	0.0000558 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.19 mg/kg		0.171 mg/kg	0.0000171 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.42 mg/kg		0.378 mg/kg	0.0000378 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.25 mg/kg		0.225 mg/kg	0.0000225 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.26 mg/kg		0.234 mg/kg	0.0000234 %	✓	
Total:								0.0334 %		

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

Classification of sample: WS126

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

Sample details

Sample Name:	LoW Code:	
WS126	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.25 m		
Moisture content:		
9.8%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.8% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	● pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				9.5 mg/kg	1.32	11.314 mg/kg	0.00113 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.348 mg/kg	0.0000271 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27 mg/kg	1.462	35.595 mg/kg	0.00356 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				37 mg/kg	1.126	37.575 mg/kg	0.00376 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	48 mg/kg	1.56	67.534 mg/kg	0.00433 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				23 mg/kg	1.579	32.768 mg/kg	0.00328 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				85 mg/kg	1.245	95.432 mg/kg	0.00954 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	naphthalene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
13	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8							




#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.5 mg/kg		0.451 mg/kg	0.0000451 %	✓	
17	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
18	fluoranthene	205-912-4	206-44-0		0.54 mg/kg		0.487 mg/kg	0.0000487 %	✓	
19	pyrene	204-927-3	129-00-0		0.58 mg/kg		0.523 mg/kg	0.0000523 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.37 mg/kg		0.334 mg/kg	0.0000334 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.38 mg/kg		0.343 mg/kg	0.0000343 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	0.51 mg/kg		0.46 mg/kg	0.000046 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.18 mg/kg		0.162 mg/kg	0.0000162 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	0.38 mg/kg		0.343 mg/kg	0.0000343 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.21 mg/kg		0.189 mg/kg	0.0000189 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.27 mg/kg		0.244 mg/kg	0.0000244 %	✓	
28	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		<		<	<		ND
Total:								0.0265 %		

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

Classification of sample: WS128


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

Sample details

Sample Name:	LoW Code:	
WS128	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.25 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number									
1	pH				5.8	pH		5.8	pH	5.8 pH		
2	arsenic { arsenic trioxide }				17	mg/kg	1.32	19.977	mg/kg	0.002 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.343	mg/kg	0.0000267 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				2.5	mg/kg	1.923	4.279	mg/kg	0.000428 %	✓	
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				35	mg/kg	1.462	45.527	mg/kg	0.00455 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				57	mg/kg	1.126	57.116	mg/kg	0.00571 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	54	mg/kg	1.56	74.965	mg/kg	0.00481 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				32	mg/kg	1.579	44.984	mg/kg	0.0045 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				78	mg/kg	1.245	86.408	mg/kg	0.00864 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.031 %		



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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.


Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00042%)

Classification of sample: WS129


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

Sample details

Sample Name:	LoW Code:	
WS129	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.20 m		
Moisture content:		
8.1%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.1% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7 pH		7 pH	7pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	10 mg/kg	1.32	12.134 mg/kg	0.00121 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	0.2 mg/kg	1.285	0.236 mg/kg	0.0000184 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	25 mg/kg	1.462	33.579 mg/kg	0.00336 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	33 mg/kg	1.126	34.145 mg/kg	0.00341 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	47 mg/kg	1.56	67.373 mg/kg	0.00432 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	19 mg/kg	1.579	27.58 mg/kg	0.00276 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	75 mg/kg	1.245	85.792 mg/kg	0.00858 %	✓	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0242 %		

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



Classification of sample: WS132

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

Sample details

Sample Name:	LoW Code:	
WS132	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.25 m		
Moisture content:		
9.2%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.2% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1			PH		5.8 pH		5.8 pH	5.8 pH		
2	033-003-00-0	215-481-4	1327-53-3		18 mg/kg	1.32	21.579 mg/kg	0.00216 %	✔	
3	048-010-00-4	215-147-8	1306-23-6	1	0.3 mg/kg	1.285	0.35 mg/kg	0.0000272 %	✔	
4	024-001-00-0	215-607-8	1333-82-0		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5		215-160-9	1308-38-9		34 mg/kg	1.462	45.121 mg/kg	0.00451 %	✔	
6	029-002-00-X	215-270-7	1317-39-1		53 mg/kg	1.126	54.182 mg/kg	0.00542 %	✔	
7	082-004-00-2	231-846-0	7758-97-6	1	65 mg/kg	1.56	92.06 mg/kg	0.0059 %	✔	
8	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		30 mg/kg	1.579	43.026 mg/kg	0.0043 %	✔	
10	034-002-00-8				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	030-013-00-7	215-222-5	1314-13-2		93 mg/kg	1.245	105.109 mg/kg	0.0105 %	✔	
Total:								0.0334 %		



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



Classification of sample: TP177

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

Sample details

Sample Name: TP177	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 17% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.3 pH		6.3 pH	6.3 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	14.246 mg/kg	0.00142 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		41 mg/kg	1.462	49.737 mg/kg	0.00497 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		37 mg/kg	1.126	34.576 mg/kg	0.00346 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	46 mg/kg	1.56	59.554 mg/kg	0.00382 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.562 mg/kg	0.0000562 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		35 mg/kg	1.579	45.884 mg/kg	0.00459 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		67 mg/kg	1.245	69.219 mg/kg	0.00692 %	✓	
12	asbestos	650-013-00-6	-----		<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0257 %		

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



Classification of sample: TP179

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

Sample details

Sample Name: TP179	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 19% (wet weight correction)		

Hazard properties

None identified

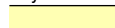



Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	14.972 mg/kg	0.0015 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.312 mg/kg	0.0000243 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		34 mg/kg	1.462	40.251 mg/kg	0.00403 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		44 mg/kg	1.126	40.127 mg/kg	0.00401 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	83 mg/kg	1.56	104.866 mg/kg	0.00672 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.548 mg/kg	0.0000548 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		27 mg/kg	1.579	34.544 mg/kg	0.00345 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		110 mg/kg	1.245	110.904 mg/kg	0.0111 %	✔	
Total:								0.0314 %		



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



Classification of sample: TP180

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

Sample details

Sample Name: TP180	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 14% (wet weight correction)		

Hazard properties

None identified

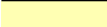



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		8.9 mg/kg	1.32	10.106 mg/kg	0.00101 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		43 mg/kg	1.462	54.048 mg/kg	0.0054 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		31 mg/kg	1.126	30.016 mg/kg	0.003 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	25 mg/kg	1.56	33.536 mg/kg	0.00215 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		39 mg/kg	1.579	52.976 mg/kg	0.0053 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		50 mg/kg	1.245	53.523 mg/kg	0.00535 %	✓	
Total:								0.0228 %		



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



Classification of sample: TP181

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

Sample details

Sample Name:	LoW Code:	
TP181	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50-0.70 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				8.1 pH		8.1 pH	8.1 pH		
2	arsenic { arsenic trioxide }				10 mg/kg	1.32	11.487 mg/kg	0.00115 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				36 mg/kg	1.462	45.776 mg/kg	0.00458 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				23 mg/kg	1.126	22.529 mg/kg	0.00225 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	12 mg/kg	1.56	16.284 mg/kg	0.00104 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				38 mg/kg	1.579	52.218 mg/kg	0.00522 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				52 mg/kg	1.245	56.311 mg/kg	0.00563 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0204 %		

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



Classification of sample: TP183

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

Sample details

Sample Name:	LoW Code:	
TP183	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
6.9%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 6.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	18.438 mg/kg	0.00184 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.4 mg/kg	1.285	0.479 mg/kg	0.0000372 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				42 mg/kg	1.462	57.15 mg/kg	0.00571 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				51 mg/kg	1.126	53.458 mg/kg	0.00535 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	79 mg/kg	1.56	114.723 mg/kg	0.00735 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.756 mg/kg	0.0000756 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				35 mg/kg	1.579	51.468 mg/kg	0.00515 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				110 mg/kg	1.245	127.471 mg/kg	0.0127 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
12	asbestos				<		<	<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6							



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0388 %		

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



Classification of sample: TP184

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

Sample details

Sample Name: TP184	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.20 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 16% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		19 mg/kg	1.32	21.072 mg/kg	0.00211 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.4 mg/kg	1.285	0.432 mg/kg	0.0000336 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		35 mg/kg	1.462	42.97 mg/kg	0.0043 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		56 mg/kg	1.126	52.962 mg/kg	0.0053 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	87 mg/kg	1.56	113.991 mg/kg	0.00731 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.7 mg/kg	1.353	0.796 mg/kg	0.0000796 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		31 mg/kg	1.579	41.13 mg/kg	0.00411 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		110 mg/kg	1.245	115.012 mg/kg	0.0115 %	✓	
Total:								0.0352 %		



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



Classification of sample: TP185

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

Sample details

Sample Name:	LoW Code:	
TP185	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
16%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	● pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	13	mg/kg	1.32	14.418	mg/kg	0.00144 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.5	mg/kg	1.285	0.54	mg/kg	0.000042 %	✓
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %	<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		37	mg/kg	1.462	45.425	mg/kg	0.00454 %	✓
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		43	mg/kg	1.126	40.667	mg/kg	0.00407 %	✓
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	70	mg/kg	1.56	91.717	mg/kg	0.00588 %	✓
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.6	mg/kg	1.353	0.682	mg/kg	0.0000682 %	✓
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		29	mg/kg	1.579	38.477	mg/kg	0.00385 %	✓
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %	<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		140	mg/kg	1.245	146.378	mg/kg	0.0146 %	✓
12	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %	<LOD
13	acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %	<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		0.61 mg/kg		0.512 mg/kg	0.0000512 %	✓	
17	anthracene	204-371-1	120-12-7		0.12 mg/kg		0.101 mg/kg	0.0000101 %	✓	
18	fluoranthene	205-912-4	206-44-0		1.6 mg/kg		1.344 mg/kg	0.000134 %	✓	
19	pyrene	204-927-3	129-00-0		1.6 mg/kg		1.344 mg/kg	0.000134 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.97 mg/kg		0.815 mg/kg	0.0000815 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	0.93 mg/kg		0.781 mg/kg	0.0000781 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1.6 mg/kg		1.344 mg/kg	0.000134 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.97 mg/kg		0.815 mg/kg	0.0000815 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.2 mg/kg		1.008 mg/kg	0.000101 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.65 mg/kg		0.546 mg/kg	0.0000546 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.71 mg/kg		0.596 mg/kg	0.0000596 %	✓	
28	TPH (C6 to C40) petroleum group		TPH		75 mg/kg		63 mg/kg	0.0063 %	✓	
29	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]	<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
Total:								0.0424 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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



Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0063%)



Classification of sample: WS136

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

Sample details

Sample Name: WS136	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 12% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number								
1	pH				6 pH		6	pH	6pH		
2	arsenic { arsenic trioxide }				11 mg/kg	1.32	12.781	mg/kg	0.00128 %	✓	
	033-003-00-0	215-481-4	1327-53-3								
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6								
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0								
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				24 mg/kg	1.462	30.868	mg/kg	0.00309 %	✓	
		215-160-9	1308-38-9								
6	copper { dicopper oxide; copper (I) oxide }				49 mg/kg	1.126	48.548	mg/kg	0.00485 %	✓	
	029-002-00-X	215-270-7	1317-39-1								
7	lead { lead chromate }			1	39 mg/kg	1.56	53.533	mg/kg	0.00343 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				0.5 mg/kg	1.353	0.596	mg/kg	0.0000596 %	✓	
	080-010-00-X	231-299-8	7487-94-7								
9	nickel { nickel dihydroxide }				20 mg/kg	1.579	27.799	mg/kg	0.00278 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]								
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8										
11	zinc { zinc oxide }				51 mg/kg	1.245	55.863	mg/kg	0.00559 %	✓	
	030-013-00-7	215-222-5	1314-13-2								
12	naphthalene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3								
13	acenaphthylene				<0.05 mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8								



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	• phenanthrene				0.27 mg/kg		0.238 mg/kg	0.0000238 %	✓	
		201-581-5	85-01-8							
17	• anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		204-371-1	120-12-7							
18	• fluoranthene				0.44 mg/kg		0.387 mg/kg	0.0000387 %	✓	
		205-912-4	206-44-0							
19	• pyrene				0.43 mg/kg		0.378 mg/kg	0.0000378 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				0.22 mg/kg		0.194 mg/kg	0.0000194 %	✓	
		601-033-00-9	200-280-6							
21	chrysene				0.21 mg/kg		0.185 mg/kg	0.0000185 %	✓	
		601-048-00-0	205-923-4							
22	benzo[b]fluoranthene				0.24 mg/kg		0.211 mg/kg	0.0000211 %	✓	
		601-034-00-4	205-911-9							
23	benzo[k]fluoranthene				0.2 mg/kg		0.176 mg/kg	0.0000176 %	✓	
		601-036-00-5	205-916-6							
24	benzo[a]pyrene; benzo[def]chrysene				0.25 mg/kg		0.22 mg/kg	0.000022 %	✓	
		601-032-00-3	200-028-5							
25	• indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8							
27	• benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		205-883-8	191-24-2							
Total:								0.0218 %		

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



Classification of sample: WS133

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

Sample details

Sample Name: WS133	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9.5% (wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				19	mg/kg	1.32	22.703	mg/kg	0.00227 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.349	mg/kg	0.0000271 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33	mg/kg	1.462	43.649	mg/kg	0.00436 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				68	mg/kg	1.126	69.287	mg/kg	0.00693 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	74	mg/kg	1.56	104.461	mg/kg	0.0067 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.7	mg/kg	1.353	0.857	mg/kg	0.0000857 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				34	mg/kg	1.579	48.601	mg/kg	0.00486 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				120	mg/kg	1.245	135.176	mg/kg	0.0135 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	TPH (C6 to C40) petroleum group				100.1	mg/kg		90.59	mg/kg	0.00906 %	✓	
			TPH									
13	benzene				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number								
14	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD	
	601-021-00-3	203-625-9	108-88-3								
15	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD	
	601-023-00-4	202-849-4	100-41-4								
Total:								0.0486 %			

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00906%)



Classification of sample: WS133[2]

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

Sample details

Sample Name: WS133[2]	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.30-0.60 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 12% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number								
1	• pH		PH		7.2 pH		7.2	pH	7.2 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	4.7 mg/kg	1.32	5.461	mg/kg	0.000546 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	44 mg/kg	1.462	56.591	mg/kg	0.00566 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	27 mg/kg	1.126	26.751	mg/kg	0.00268 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	12 mg/kg	1.56	16.472	mg/kg	0.00106 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	42 mg/kg	1.579	58.378	mg/kg	0.00584 %	✓	
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	45 mg/kg	1.245	49.291	mg/kg	0.00493 %	✓	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<		<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0212 %		

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



Classification of sample: WS135

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

Sample details

Sample Name:	WS135	LoW Code:	
Sample Depth:	0.00-0.40 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	12%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.9 pH		6.9 pH	6.9 pH		
2	arsenic { arsenic trioxide }				12 mg/kg	1.32	13.943 mg/kg	0.00139 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				1.2 mg/kg	1.923	2.031 mg/kg	0.000203 %	✓	
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				34 mg/kg	1.462	43.73 mg/kg	0.00437 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				41 mg/kg	1.126	40.622 mg/kg	0.00406 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	41 mg/kg	1.56	56.278 mg/kg	0.00361 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.715 mg/kg	0.0000715 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				28 mg/kg	1.579	38.919 mg/kg	0.00389 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				48 mg/kg	1.245	52.577 mg/kg	0.00526 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0231 %		



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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.0002%)



Classification of sample: WS153

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

Sample details

Sample Name: WS153	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.30 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 9.9% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 9.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH				6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }				14 mg/kg	1.32	16.655 mg/kg	0.00167 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.347 mg/kg	0.000027 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				31 mg/kg	1.462	40.823 mg/kg	0.00408 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				39 mg/kg	1.126	39.563 mg/kg	0.00396 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	58 mg/kg	1.56	81.513 mg/kg	0.00523 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.732 mg/kg	0.0000732 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				28 mg/kg	1.579	39.848 mg/kg	0.00398 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				84 mg/kg	1.245	94.205 mg/kg	0.00942 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0289 %		



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



Classification of sample: WS152

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

Sample details

Sample Name:	LoW Code:	
WS152	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number									
1	pH				6.2	pH		6.2	pH	6.2 pH		
2	arsenic { arsenic trioxide }				11	mg/kg	1.32	12.926	mg/kg	0.00129 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.3	mg/kg	1.285	0.343	mg/kg	0.0000267 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				28	mg/kg	1.462	36.422	mg/kg	0.00364 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				30	mg/kg	1.126	30.061	mg/kg	0.00301 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	41	mg/kg	1.56	56.918	mg/kg	0.00365 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.6	mg/kg	1.353	0.723	mg/kg	0.0000723 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				24	mg/kg	1.579	33.738	mg/kg	0.00337 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				85	mg/kg	1.245	94.163	mg/kg	0.00942 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.025 %		

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



Classification of sample: WS156

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

Sample details

Sample Name: WS156	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.40 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 12% (wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.4 pH		6.4 pH	6.4 pH		
2	arsenic { arsenic trioxide }				16 mg/kg	1.32	18.59 mg/kg	0.00186 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.5 mg/kg	1.285	0.566 mg/kg	0.000044 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30 mg/kg	1.462	38.585 mg/kg	0.00386 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				45 mg/kg	1.126	44.585 mg/kg	0.00446 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	54 mg/kg	1.56	74.122 mg/kg	0.00475 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				0.6 mg/kg	1.353	0.715 mg/kg	0.0000715 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				30 mg/kg	1.579	41.699 mg/kg	0.00417 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				220 mg/kg	1.245	240.977 mg/kg	0.0241 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0438 %		



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



Classification of sample: WS108

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

Sample details

Sample Name: WS108	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth: 0.00-0.27 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Moisture content: 26% (wet weight correction)		

Hazard properties

None identified





Determinands

Moisture content: 26% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				6.7	pH		6.7	pH	6.7 pH		
2	arsenic { arsenic trioxide }				21	mg/kg	1.32	20.518	mg/kg	0.00205 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.38	mg/kg	0.0000296 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				38	mg/kg	1.462	41.099	mg/kg	0.00411 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				50	mg/kg	1.126	41.658	mg/kg	0.00417 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	93	mg/kg	1.56	107.346	mg/kg	0.00688 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.8	mg/kg	1.353	0.801	mg/kg	0.0000801 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				34	mg/kg	1.579	39.74	mg/kg	0.00397 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				110	mg/kg	1.245	101.32	mg/kg	0.0101 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	xylene				<1	mg/kg		<1	mg/kg	<0.0001 %		<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]									
Total:										0.032 %		



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



Classification of sample: WS141

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

Sample details

Sample Name:	LoW Code:	
WS141	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.04-0.34 m		
Moisture content:		
23%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				7.2	pH		7.2	pH	7.2 pH		
			PH									
2	arsenic { arsenic trioxide }				13	mg/kg	1.32	13.216	mg/kg	0.00132 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.5	mg/kg	1.285	0.495	mg/kg	0.0000385 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				27	mg/kg	1.462	30.386	mg/kg	0.00304 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				68	mg/kg	1.126	58.952	mg/kg	0.0059 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	93	mg/kg	1.56	111.698	mg/kg	0.00716 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				1.3	mg/kg	1.353	1.355	mg/kg	0.000135 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				35	mg/kg	1.579	42.568	mg/kg	0.00426 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				170	mg/kg	1.245	162.933	mg/kg	0.0163 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	• fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	• phenanthrene	201-581-5	85-01-8		0.91 mg/kg		0.701 mg/kg	0.0000701 %	✓	
17	• anthracene	204-371-1	120-12-7		0.32 mg/kg		0.246 mg/kg	0.0000246 %	✓	
18	• fluoranthene	205-912-4	206-44-0		3.1 mg/kg		2.387 mg/kg	0.000239 %	✓	
19	• pyrene	204-927-3	129-00-0		3 mg/kg		2.31 mg/kg	0.000231 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6		1.7 mg/kg		1.309 mg/kg	0.000131 %	✓	
21	chrysene	601-048-00-0	205-923-4		1.3 mg/kg		1.001 mg/kg	0.0001 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9		1.6 mg/kg		1.232 mg/kg	0.000123 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6		0.94 mg/kg		0.724 mg/kg	0.0000724 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		1.7 mg/kg		1.309 mg/kg	0.000131 %	✓	
25	• indeno[123-cd]pyrene	205-893-2	193-39-5		1.1 mg/kg		0.847 mg/kg	0.0000847 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8		0.29 mg/kg		0.223 mg/kg	0.0000223 %	✓	
27	• benzo[ghi]perylene	205-883-8	191-24-2		1.3 mg/kg		1.001 mg/kg	0.0001 %	✓	
Total:								0.04 %		

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



Classification of sample: BH17

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

Sample details

Sample Name:	BH17	LoW Code:	
Sample Depth:	0.00-0.50 m	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	9.5%	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
	(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 9.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
1	pH				7.7	pH		7.7	pH	7.7 pH		
2	arsenic { arsenic trioxide }				25	mg/kg	1.32	29.872	mg/kg	0.00299 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	3.8	mg/kg	1.285	4.42	mg/kg	0.000344 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				34	mg/kg	1.462	44.972	mg/kg	0.0045 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				78	mg/kg	1.126	79.476	mg/kg	0.00795 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	180	mg/kg	1.56	254.094	mg/kg	0.0163 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				0.8	mg/kg	1.353	0.98	mg/kg	0.000098 %	✓	
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				47	mg/kg	1.579	67.184	mg/kg	0.00672 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				2.7	mg/kg	2.554	6.24	mg/kg	0.000624 %	✓	
	034-002-00-8											
11	zinc { zinc oxide }				240	mg/kg	1.245	270.352	mg/kg	0.027 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				0.42	mg/kg		0.38	mg/kg	0.000038 %	✓	
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	• acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-469-6	83-32-9							
15	• fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7							
16	• phenanthrene				2.4 mg/kg		2.172 mg/kg	0.000217 %	✓	
		201-581-5	85-01-8							
17	• anthracene				0.53 mg/kg		0.48 mg/kg	0.000048 %	✓	
		204-371-1	120-12-7							
18	• fluoranthene				5.8 mg/kg		5.249 mg/kg	0.000525 %	✓	
		205-912-4	206-44-0							
19	• pyrene				4.9 mg/kg		4.435 mg/kg	0.000443 %	✓	
		204-927-3	129-00-0							
20	benzo[a]anthracene				2.7 mg/kg		2.444 mg/kg	0.000244 %	✓	
	601-033-00-9	200-280-6	56-55-3							
21	chrysene				2.9 mg/kg		2.625 mg/kg	0.000262 %	✓	
	601-048-00-0	205-923-4	218-01-9							
22	benzo[b]fluoranthene				5.3 mg/kg		4.797 mg/kg	0.00048 %	✓	
	601-034-00-4	205-911-9	205-99-2							
23	benzo[k]fluoranthene				1.4 mg/kg		1.267 mg/kg	0.000127 %	✓	
	601-036-00-5	205-916-6	207-08-9							
24	benzo[a]pyrene; benzo[def]chrysene				3.1 mg/kg		2.806 mg/kg	0.000281 %	✓	
	601-032-00-3	200-028-5	50-32-8							
25	• indeno[123-cd]pyrene				3.1 mg/kg		2.806 mg/kg	0.000281 %	✓	
		205-893-2	193-39-5							
26	dibenz[a,h]anthracene				0.68 mg/kg		0.615 mg/kg	0.0000615 %	✓	
	601-041-00-2	200-181-8	53-70-3							
27	• benzo[ghi]perylene				3.7 mg/kg		3.349 mg/kg	0.000335 %	✓	
		205-883-8	191-24-2							
28	• TPH (C6 to C40) petroleum group				173.3 mg/kg		156.837 mg/kg	0.0157 %	✓	
			TPH							
29	benzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
30	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
31	• ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
32	xylene				<1 mg/kg		<1 mg/kg	<0.0001 %		<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]							
Total:								0.0862 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this



can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.


Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0157%)

Classification of sample: WS142


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

Sample details

Sample Name:	LoW Code:	
WS142	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	15.712 mg/kg	0.00157 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.218 mg/kg	0.000017 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		32 mg/kg	1.462	39.754 mg/kg	0.00398 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		30 mg/kg	1.126	28.71 mg/kg	0.00287 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	64 mg/kg	1.56	84.854 mg/kg	0.00544 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.575 mg/kg	0.0000575 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		27 mg/kg	1.579	36.25 mg/kg	0.00362 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		91 mg/kg	1.245	96.279 mg/kg	0.00963 %	✓	
Total:								0.0277 %		



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



Classification of sample: WS143

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

Sample details

Sample Name:	LoW Code:	
WS143	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
12%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.6 pH		7.6 pH	7.6 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		14 mg/kg	1.32	16.266 mg/kg	0.00163 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.5 mg/kg	1.285	0.566 mg/kg	0.000044 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		26 mg/kg	1.462	33.44 mg/kg	0.00334 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		62 mg/kg	1.126	61.428 mg/kg	0.00614 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	270 mg/kg	1.56	370.612 mg/kg	0.0238 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.596 mg/kg	0.0000596 %	✔	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		36 mg/kg	1.579	50.039 mg/kg	0.005 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		140 mg/kg	1.245	153.349 mg/kg	0.0153 %	✔	
12	TPH (C6 to C40) petroleum group		TPH		146.2 mg/kg		128.656 mg/kg	0.0129 %	✔	
13	benzene	601-020-00-8	200-753-7		<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	toluene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<1 mg/kg		<1 mg/kg	<0.0001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
16	asbestos				<		<	<		ND
	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							
Total:								0.069 %		

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 With regards to petroleum hydrocarbons, based upon carbon banding of the TPH, the findings of the investigation and the way the petroleum hydrocarbons are distributed within the soil, it is likely that the potential for the soil being hazardous on account of HP3i can be all but discounted. However, this can be confirmed only by subjecting the material flash-point testing. It would be reasonable to assume that the result would indicate that the soil would be non-hazardous as a result of the TPH content, the absence of free draining liquid and the relatively low concentrations of short-chain hydrocarbons reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0129%)



Classification of sample: TP194

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

Sample details

Sample Name:	LoW Code:	
TP194	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
20%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				7.8	pH		7.8	pH	7.8 pH		
2	arsenic { arsenic trioxide }				6.2	mg/kg	1.32	6.549	mg/kg	0.000655 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				24	mg/kg	1.462	28.062	mg/kg	0.00281 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				15	mg/kg	1.126	13.511	mg/kg	0.00135 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	25	mg/kg	1.56	31.196	mg/kg	0.002 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				18	mg/kg	1.579	22.745	mg/kg	0.00227 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				31	mg/kg	1.245	30.869	mg/kg	0.00309 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	asbestos				<			<		<		ND
	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0127 %		

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



Classification of sample: TP195

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

Sample details

Sample Name:	LoW Code:	
TP195	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
28%		
(wet weight correction)		

Hazard properties

None identified

Determinands

Moisture content: 28% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
1	pH		PH		7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	9.1 mg/kg	1.32	8.651 mg/kg	0.000865 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9	23 mg/kg	1.462	24.203 mg/kg	0.00242 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	23 mg/kg	1.126	18.645 mg/kg	0.00186 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	41 mg/kg	1.56	46.046 mg/kg	0.00295 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7	<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]	17 mg/kg	1.579	19.333 mg/kg	0.00193 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2	71 mg/kg	1.245	63.63 mg/kg	0.00636 %	✔	
12	asbestos	650-013-00-6	-----	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6	<		<	<		ND



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
			77536-67-5 12001-29-5							
Total:								0.0169 %		

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



Classification of sample: WS145

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

Sample details

Sample Name:	LoW Code:	
WS145	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				7.1 pH		7.1 pH	7.1 pH		
2	arsenic { arsenic trioxide }				18 mg/kg	1.32	20.439 mg/kg	0.00204 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.332 mg/kg	0.0000258 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33 mg/kg	1.462	41.479 mg/kg	0.00415 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				57 mg/kg	1.126	55.191 mg/kg	0.00552 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	75 mg/kg	1.56	100.608 mg/kg	0.00645 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				28 mg/kg	1.579	38.034 mg/kg	0.0038 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				75 mg/kg	1.245	80.284 mg/kg	0.00803 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0305 %		



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



Classification of sample: WS147

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

Sample details

Sample Name:	LoW Code:	
WS147	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.40 m		
Moisture content:		
14%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number									
1	pH				6.7	pH		6.7	pH	6.7 pH		
2	arsenic { arsenic trioxide }				20	mg/kg	1.32	22.71	mg/kg	0.00227 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	<0.2	mg/kg	1.285	<0.257	mg/kg	<0.00002 %		<LOD
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32	mg/kg	1.462	40.222	mg/kg	0.00402 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				50	mg/kg	1.126	48.413	mg/kg	0.00484 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	94	mg/kg	1.56	126.095	mg/kg	0.00808 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				28	mg/kg	1.579	38.034	mg/kg	0.0038 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				67	mg/kg	1.245	71.72	mg/kg	0.00717 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
Total:										0.0307 %		



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



Classification of sample: WS148

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

Sample details

Sample Name:	LoW Code:	
WS148	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50-1.00 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		5.9 pH		5.9 pH	5.9 pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		16 mg/kg	1.32	18.379 mg/kg	0.00184 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.2 mg/kg	1.285	0.224 mg/kg	0.0000174 %	✓	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		31 mg/kg	1.462	39.418 mg/kg	0.00394 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		40 mg/kg	1.126	39.181 mg/kg	0.00392 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	180 mg/kg	1.56	244.267 mg/kg	0.0157 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		0.5 mg/kg	1.353	0.589 mg/kg	0.0000589 %	✓	
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		25 mg/kg	1.579	34.354 mg/kg	0.00344 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		66 mg/kg	1.245	71.471 mg/kg	0.00715 %	✓	
Total:								0.0365 %		



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



Classification of sample: WS149

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

Sample details

Sample Name:	LoW Code:	
WS149	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.40 m		
Moisture content:		
13%		
(wet weight correction)		

Hazard properties

None identified

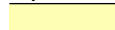



Determinands

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
	CLP index number	EC Number	CAS Number							
1	pH				5.6 pH		5.6 pH	5.6 pH		
2	arsenic { arsenic trioxide }				16 mg/kg	1.32	18.379 mg/kg	0.00184 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				32 mg/kg	1.462	40.69 mg/kg	0.00407 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				58 mg/kg	1.126	56.812 mg/kg	0.00568 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	89 mg/kg	1.56	120.776 mg/kg	0.00774 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				22 mg/kg	1.579	30.232 mg/kg	0.00302 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				90 mg/kg	1.245	97.461 mg/kg	0.00975 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0327 %		



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



Classification of sample: WS158

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

Sample details

Sample Name:	LoW Code:	
WS158	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.38 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		13 mg/kg	1.32	14.933 mg/kg	0.00149 %	✓	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		1.9 mg/kg	1.923	3.179 mg/kg	0.000318 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		33 mg/kg	1.462	41.961 mg/kg	0.0042 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		38 mg/kg	1.126	37.222 mg/kg	0.00372 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	54 mg/kg	1.56	73.28 mg/kg	0.0047 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		26 mg/kg	1.579	35.728 mg/kg	0.00357 %	✓	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		56 mg/kg	1.245	60.642 mg/kg	0.00606 %	✓	
Total:								0.0244 %		



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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00031%)



Classification of sample: WS159

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

Sample details

Sample Name:	LoW Code:	
WS159	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.40 m		
Moisture content:		
15%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH		PH		6 pH		6 pH	6pH		
2	arsenic { arsenic trioxide }	033-003-00-0	215-481-4		18 mg/kg	1.32	20.201 mg/kg	0.00202 %	✔	
3	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1	0.3 mg/kg	1.285	0.328 mg/kg	0.0000255 %	✔	
4	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8		1.4 mg/kg	1.923	2.289 mg/kg	0.000229 %	✔	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9		34 mg/kg	1.462	42.239 mg/kg	0.00422 %	✔	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7		70 mg/kg	1.126	66.99 mg/kg	0.0067 %	✔	
7	lead { lead chromate }	082-004-00-2	231-846-0	1	65 mg/kg	1.56	86.18 mg/kg	0.00553 %	✔	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]		27 mg/kg	1.579	36.25 mg/kg	0.00362 %	✔	
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }	034-002-00-8			<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
11	zinc { zinc oxide }	030-013-00-7	215-222-5		82 mg/kg	1.245	86.757 mg/kg	0.00868 %	✔	
Total:								0.0313 %		



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 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because Concentrations of hexavalent chromium is not present in concentrations high enough to equally bind to other elements to produce hazardous species. Concentrations are only marginally above detection limit and are therefore not considered adequate enough to produce oxidizing properties.

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00022%)



Classification of sample: WS161

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

Sample details

Sample Name:	LoW Code:	
WS161	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.20 m		
Moisture content:		
12%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				5.7 pH		5.7 pH	5.7 pH		
2	arsenic { arsenic trioxide }				15 mg/kg	1.32	17.428 mg/kg	0.00174 %	✔	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.339 mg/kg	0.0000264 %	✔	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				30 mg/kg	1.462	38.585 mg/kg	0.00386 %	✔	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				55 mg/kg	1.126	54.493 mg/kg	0.00545 %	✔	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	100 mg/kg	1.56	137.264 mg/kg	0.0088 %	✔	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				23 mg/kg	1.579	31.969 mg/kg	0.0032 %	✔	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				88 mg/kg	1.245	96.391 mg/kg	0.00964 %	✔	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0332 %		



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

Classification of sample: WS163


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

Sample details

Sample Name:	LoW Code:	
WS163	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.35 m		
Moisture content:		
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
	CLP index number	EC Number	CAS Number									
1	pH				6.3	pH		6.3	pH	6.3 pH		
2	arsenic { arsenic trioxide }				25	mg/kg	1.32	29.377	mg/kg	0.00294 %	✓	
	033-003-00-0	215-481-4	1327-53-3									
3	cadmium { cadmium sulfide }			1	0.4	mg/kg	1.285	0.458	mg/kg	0.0000356 %	✓	
	048-010-00-4	215-147-8	1306-23-6									
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2	mg/kg	1.923	<2.308	mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0									
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33	mg/kg	1.462	42.926	mg/kg	0.00429 %	✓	
		215-160-9	1308-38-9									
6	copper { dicopper oxide; copper (I) oxide }				71	mg/kg	1.126	71.145	mg/kg	0.00711 %	✓	
	029-002-00-X	215-270-7	1317-39-1									
7	lead { lead chromate }			1	110	mg/kg	1.56	152.706	mg/kg	0.00979 %	✓	
	082-004-00-2	231-846-0	7758-97-6									
8	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
9	nickel { nickel dihydroxide }				30	mg/kg	1.579	42.173	mg/kg	0.00422 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
	034-002-00-8											
11	zinc { zinc oxide }				130	mg/kg	1.245	144.013	mg/kg	0.0144 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
12	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
13	acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-917-1	208-96-8									



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number							
14	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	fluorene	201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	phenanthrene	201-581-5	85-01-8		1.7 mg/kg		1.513 mg/kg	0.000151 %	✓	
17	anthracene	204-371-1	120-12-7		0.34 mg/kg		0.303 mg/kg	0.0000303 %	✓	
18	fluoranthene	205-912-4	206-44-0		2.4 mg/kg		2.136 mg/kg	0.000214 %	✓	
19	pyrene	204-927-3	129-00-0		2.3 mg/kg		2.047 mg/kg	0.000205 %	✓	
20	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	1.4 mg/kg		1.246 mg/kg	0.000125 %	✓	
21	chrysene	601-048-00-0	205-923-4	218-01-9	1.1 mg/kg		0.979 mg/kg	0.0000979 %	✓	
22	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	1.1 mg/kg		0.979 mg/kg	0.0000979 %	✓	
23	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	0.76 mg/kg		0.676 mg/kg	0.0000676 %	✓	
24	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	1.2 mg/kg		1.068 mg/kg	0.000107 %	✓	
25	indeno[123-cd]pyrene	205-893-2	193-39-5		0.51 mg/kg		0.454 mg/kg	0.0000454 %	✓	
26	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
27	benzo[ghi]perylene	205-883-8	191-24-2		0.59 mg/kg		0.525 mg/kg	0.0000525 %	✓	
Total:								0.0445 %		

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



Classification of sample: SA12

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

Sample details

Sample Name:	LoW Code:	
SA12	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.00-0.30 m		
Moisture content:		
13%		
(wet weight correction)		

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
	CLP index number	EC Number	CAS Number							
1	pH				6.6 pH		6.6 pH	6.6 pH		
2	arsenic { arsenic trioxide }				18 mg/kg	1.32	20.676 mg/kg	0.00207 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
3	cadmium { cadmium sulfide }			1	0.3 mg/kg	1.285	0.335 mg/kg	0.0000261 %	✓	
	048-010-00-4	215-147-8	1306-23-6							
4	chromium in chromium(VI) compounds { chromium(VI) oxide }				<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
	024-001-00-0	215-607-8	1333-82-0							
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }				33 mg/kg	1.462	41.961 mg/kg	0.0042 %	✓	
		215-160-9	1308-38-9							
6	copper { dicopper oxide; copper (I) oxide }				81 mg/kg	1.126	79.341 mg/kg	0.00793 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
7	lead { lead chromate }			1	89 mg/kg	1.56	120.776 mg/kg	0.00774 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dihydroxide }				25 mg/kg	1.579	34.354 mg/kg	0.00344 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]							
10	selenium { selenium compounds with the exception of cadmium selenide and those specified elsewhere in this Annex }				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
	034-002-00-8									
11	zinc { zinc oxide }				110 mg/kg	1.245	119.119 mg/kg	0.0119 %	✓	
	030-013-00-7	215-222-5	1314-13-2							
Total:								0.0378 %		



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 CLP determinands

• **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

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

Conversion factor: 1.462
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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

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

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

• **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 Chronic 1 H410 , Aquatic Acute 1 H400

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

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

• **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

• **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: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

▪ **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 Chronic 1 H410 , Aquatic Acute 1 H400

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

CLP index number: 601-023-00-4
Description/Comments:
Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s):
03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on hazard statements

cadmium {cadmium sulfide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

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

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Most likely common species

lead {lead chromate}

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

zinc {zinc oxide}

The absence of chromium VI within the majority soil samples indicates that zinc chromate could not be present within the site soils. The samples were generally collected from areas which were not overlain with hardstanding suggesting that soluble zinc form will likely have leached from the site soils. Given this, the next most conservative insoluble zinc species has been selected.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2020.209.4418.8650 (27 Jul 2020)
HazWasteOnline Database: 2020.210.4420.8653 (28 Jul 2020)

This classification utilises the following guidance and legislation:

WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 Wastes 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
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010



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Analytical Report Number : 20-14096

Project / Site name:	Area 11, The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	23/06/2020
Report Issue Number:	1	Report issued on:	23/06/2020
Samples Analysed:	1 10:1 WAC Sample		

Signed:

Joanna Wawrzeczko
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

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

Iss No 20-14096-1 Area 11, The Lanes, Penwortham C4259

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The results included within the report relate only to the sample(s) submitted for testing.

Page 1 of 5



i2 Analytical

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Waste Acceptance Criteria Analytical Results

Report No:	20-14096					
				Client: BSL		
Location	Area 11, The Lanes, Penwortham					
Lab Reference (Sample Number)	1533533 / 1533534			Landfill Waste Acceptance Criteria		
Sampling Date	09/06/2020			Limits		
Sample ID	WS87			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.30-1.29					
Solid Waste Analysis						
TOC (%)**	4.3			3%	5%	6%
Loss on Ignition (%) **	15.7			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.007			1	--	--
Mineral Oil (mg/kg)	< 10			500	--	--
Total PAH (WAC-17) (mg/kg)	47			100	--	--
pH (units)**	6.9			--	>6	--
Acid Neutralisation Capacity (mol / kg)	-3.3			--	To be evaluated	To be evaluated
Eluate Analysis	10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0011		< 0.0110	0.5	2	25
Barium *	0.0516		0.338	20	100	300
Cadmium *	< 0.0001		< 0.0008	0.04	1	5
Chromium *	0.0008		0.0052	0.5	10	70
Copper *	0.016		0.11	2	50	100
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2
Molybdenum *	0.0045		0.0293	0.5	10	30
Nickel *	0.0034		0.022	0.4	10	40
Lead *	0.012		0.079	0.5	10	50
Antimony *	< 0.0017		< 0.017	0.06	0.7	5
Selenium *	< 0.0040		< 0.040	0.1	0.5	7
Zinc *	0.052		0.34	4	50	200
Chloride *	1.5		9.6	800	15000	25000
Fluoride	0.25		1.6	10	150	500
Sulphate *	17		110	1000	20000	50000
TDS*	36		240	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010		< 0.10	1	-	-
DOC	9.71		63.5	500	800	1000
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	1.1					
Dry Matter (%)	67					
Moisture (%)	33					
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited		

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.



Analytical Report Number : 20-14096

Project / Site name: Area 11, The Lanes, Penwortham

* 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 *
1533533	WS87	None Supplied	0.30-1.29	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-14096

Project / Site name: Area 11, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance"	L046-PL	W	NONE
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as received, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil"	L039-PL	W	ISO 17025
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Speciated WAC-17 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. MCERTS accredited except Coronene.	L064-PL	D	NONE
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
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil"	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025

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The results included within the report relate only to the sample(s) submitted for testing.

Page 4 of 5



Analytical Report Number : 20-14096

Project / Site name: Area 11, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS

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.



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Analytical Report Number : 20-14158

Project / Site name:	Area 9, The Lanes, Penwortham	Samples received on:	15/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	15/06/2020
Your order number:		Analysis completed by:	23/06/2020
Report Issue Number:	1	Report issued on:	23/06/2020
Samples Analysed:	10:1 WAC sample		

Signed: *A. Czerwińska*

Agnieszka Czerwińska

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.

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Waste Acceptance Criteria Analytical Results

Report No:	20-14158					
	Client: BSL					
Location	Area 9, The Lanes, Penwortham					
Lab Reference (Sample Number)	1533799 / 1533800					
Sampling Date	08/06/2020					
Sample ID	WS70					
Depth (m)	0.20-0.50					
				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Solid Waste Analysis						
TOC (%)**	3.5			3%	5%	6%
Loss on Ignition (%) **	8.2			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.007			1	--	--
Mineral Oil (mg/kg)	230			500	--	--
Total PAH (WAC-17) (mg/kg)	39.1			100	--	--
pH (units)**	8.3			--	>6	--
Acid Neutralisation Capacity (mol / kg)	14			--	To be evaluated	To be evaluated
Eluate Analysis	10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0011		< 0.0110	0.5	2	25
Barium *	0.0183		0.173	20	100	300
Cadmium *	< 0.0001		< 0.0008	0.04	1	5
Chromium *	0.0018		0.017	0.5	10	70
Copper *	0.025		0.23	2	50	100
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2
Molybdenum *	0.0014		0.0129	0.5	10	30
Nickel *	0.0021		0.020	0.4	10	40
Lead *	0.0042		0.040	0.5	10	50
Antimony *	< 0.0017		< 0.017	0.06	0.7	5
Selenium *	< 0.0040		< 0.040	0.1	0.5	7
Zinc *	0.012		0.11	4	50	200
Chloride *	0.74		7.0	800	15000	25000
Fluoride	1.3		13	10	150	500
Sulphate *	2.7		25	1000	20000	50000
TDS*	75		710	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010		< 0.10	1	-	-
DOC	14.1		133	500	800	1000
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	1.1					
Dry Matter (%)	97					
Moisture (%)	3.1					
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited		

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.



Analytical Report Number : 20-14158

Project / Site name: Area 9, The Lanes, Penwortham

* 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 *
1533799	WS70	None Supplied	0.20-0.50	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 20-14158

Project / Site name: Area 9, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance"	L046-PL	W	NONE
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as received, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Speciated WAC-17 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. MCERTS accredited except Coronene.	L064-PL	D	NONE
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
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025

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Analytical Report Number : 20-14158

Project / Site name: Area 9, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS

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.



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Analytical Report Number : 20-15148

Project / Site name:	Area 6, The Lanes, Penwortham	Samples received on:	19/06/2020
Your job number:	C4259	Sample instructed/ Analysis started on:	19/06/2020
Your order number:	1017	Analysis completed by:	29/06/2020
Report Issue Number:	1	Report issued on:	30/06/2020
Samples Analysed:	2 10:1 WAC Samples		

Signed:

Joanna Wawrzeczek
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

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

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Page 1 of 6



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Waste Acceptance Criteria Analytical Results

Report No:	20-15148					
	Client: BSL					
Location	Area 6, The Lanes, Penwortham					
Lab Reference (Sample Number)	1539356 / 1539357					
Sampling Date	15/06/2020					
Sample ID	WS55					
Depth (m)	0.00-0.40					
				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Solid Waste Analysis						
TOC (%)**	3.5			3%	5%	6%
Loss on Ignition (%) **	11.1			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.007			1	--	--
Mineral Oil (mg/kg)	300			500	--	--
Total PAH (WAC-17) (mg/kg)	867			100	--	--
pH (units)**	8.3			--	>6	--
Acid Neutralisation Capacity (mol / kg)	11			--	To be evaluated	To be evaluated
Eluate Analysis	10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0019		0.0168	0.5	2	25
Barium *	0.0358		0.313	20	100	300
Cadmium *	< 0.0001		< 0.0008	0.04	1	5
Chromium *	0.0014		0.012	0.5	10	70
Copper *	0.021		0.18	2	50	100
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2
Molybdenum *	0.0044		0.0387	0.5	10	30
Nickel *	0.0009		0.0079	0.4	10	40
Lead *	0.0068		0.060	0.5	10	50
Antimony *	< 0.0017		< 0.017	0.06	0.7	5
Selenium *	< 0.0040		< 0.040	0.1	0.5	7
Zinc *	0.018		0.16	4	50	200
Chloride *	0.58		5.0	800	15000	25000
Fluoride	0.19		1.6	10	150	500
Sulphate *	5.9		52	1000	20000	50000
TDS*	59		510	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010		< 0.10	1	-	-
DOC	9.39		82.1	500	800	1000
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	1.2					
Dry Matter (%)	89					
Moisture (%)	11					
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited		

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.



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Waste Acceptance Criteria Analytical Results

Report No:	20-15148					
	Client: BSL					
Location	Area 6, The Lanes, Penwortham					
Lab Reference (Sample Number)	1539358 / 1539359					
Sampling Date	15/06/2020					
Sample ID	SA04					
Depth (m)	0.25-0.70					
				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Solid Waste Analysis						
TOC (%)**	3.2			3%	5%	6%
Loss on Ignition (%) **	8.3			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.007			1	--	--
Mineral Oil (mg/kg)	< 10			500	--	--
Total PAH (WAC-17) (mg/kg)	20.6			100	--	--
pH (units)**	7.2			--	>6	--
Acid Neutralisation Capacity (mol / kg)	1.9			--	To be evaluated	To be evaluated
Eluate Analysis	10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0013		< 0.0110	0.5	2	25
Barium *	0.0388		0.310	20	100	300
Cadmium *	< 0.0001		< 0.0008	0.04	1	5
Chromium *	0.0030		0.024	0.5	10	70
Copper *	0.025		0.20	2	50	100
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2
Molybdenum *	0.0011		0.0088	0.5	10	30
Nickel *	0.0024		0.019	0.4	10	40
Lead *	0.017		0.14	0.5	10	50
Antimony *	< 0.0017		< 0.017	0.06	0.7	5
Selenium *	< 0.0040		< 0.040	0.1	0.5	7
Zinc *	0.018		0.14	4	50	200
Chloride *	0.44		3.5	800	15000	25000
Fluoride	0.34		2.7	10	150	500
Sulphate *	1.7		14	1000	20000	50000
TDS*	30		240	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010		< 0.10	1	-	-
DOC	11.2		89.0	500	800	1000
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	1.2					
Dry Matter (%)	88					
Moisture (%)	12					
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited		

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.



Analytical Report Number : 20-15148

Project / Site name: Area 6, The Lanes, Penwortham

* 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 *
1539356	WS55	None Supplied	0.00-0.40	Brown loam and clay with gravel.
1539358	SA04	None Supplied	0.25-0.70	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 20-15148

Project / Site name: Area 6, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance"	L046-PL	W	NONE
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as received, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Speciated WAC-17 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. MCERTS accredited except Coronene.	L064-PL	D	NONE
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
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025

Iss No 20-15148-1 Area 6, The Lanes, Penwortham C4259

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Analytical Report Number : 20-15148

Project / Site name: Area 6, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS

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.



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Waste Acceptance Criteria Analytical Results

Report No:	20-15151					
				Client: BSL		
Location	Area17, The Lanes, Penwortham					
Lab Reference (Sample Number)	1539364 / 1539365			Landfill Waste Acceptance Criteria		
Sampling Date	11/06/2020			Limits		
Sample ID	BH17			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Depth (m)	0.00-0.50					
Solid Waste Analysis						
TOC (%)**	5.0			3%	5%	6%
Loss on Ignition (%) **	14.5			--	--	10%
BTEX (µg/kg) **	< 10			6000	--	--
Sum of PCBs (mg/kg) **	< 0.007			1	--	--
Mineral Oil (mg/kg)	180			500	--	--
Total PAH (WAC-17) (mg/kg)	35.0			100	--	--
pH (units)**	7.3			--	>6	--
Acid Neutralisation Capacity (mol / kg)	5.2			--	To be evaluated	To be evaluated
Eluate Analysis	10:1		10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0039		0.0309	0.5	2	25
Barium *	0.0228		0.181	20	100	300
Cadmium *	< 0.0001		< 0.0008	0.04	1	5
Chromium *	0.0010		0.0081	0.5	10	70
Copper *	0.018		0.14	2	50	100
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2
Molybdenum *	0.0020		0.0162	0.5	10	30
Nickel *	0.0010		0.0077	0.4	10	40
Lead *	0.0041		0.032	0.5	10	50
Antimony *	< 0.0017		< 0.017	0.06	0.7	5
Selenium *	< 0.0040		< 0.040	0.1	0.5	7
Zinc *	0.0070		0.055	4	50	200
Chloride *	0.29		2.3	800	15000	25000
Fluoride	0.43		3.4	10	150	500
Sulphate *	4.4		35	1000	20000	50000
TDS*	110		830	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010		< 0.10	1	-	-
DOC	9.03		71.4	500	800	1000
Leach Test Information						
Stone Content (%)	< 0.1					
Sample Mass (kg)	1.2					
Dry Matter (%)	91					
Moisture (%)	9.5					
Results are expressed on a dry weight basis, after correction for moisture content where applicable.				* = UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation				** = MCERTS accredited		

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Analytical Report Number : 20-15151

Project / Site name: Area17, The Lanes, Penwortham

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Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1539364	BH17	None Supplied	0.00-0.50	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 20-15151

Project / Site name: Area17, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
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Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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Page 4 of 5



Analytical Report Number : 20-15151

Project / Site name: Area17, The Lanes, Penwortham

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

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