PHASE 2 REPORT ON A SITE INVESTIGATION

Site

GRAININGFOLD,
HORSHAM ROAD, FIVE OAKS,
WEST SUSSEX RH14 9AT

Client

SUSAN HART

Report Ref
24/12780/A/GO

Issued
FEBRUARY 2024

ALBURY S.I. LTD

Geotechnical and Environmental Consultants
Miltons Yard, Petworth Road,
Witley, Surrey GU8 5LH

T: 01428 684 836
info@alburysi.co.uk
www.alburysi.co.uk

DOCUMENT CONTROL			
Report Title	Phase 2 Report on a Site Investigation		
Contract	Horsham Road, Five Oaks		
Report Reference	24/12780/A/GO		
Client	Susan Hart		
Prepared by	**G C D Owens** BSc MSc FGS MIEnvSc Director		
Approved by	**K J Clark** BSc Hons Director		
Revision No.	Status	Date of Issue	Final Issue Check
0	Final	06/02/2024	

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The groundwater observations entered on exploratory records are those noted at the time of the investigation. The normal rate of progress does not usually permit the recording of any equilibrium water level for any one water strike. It should be noted that groundwater levels are prone to seasonal variation and to changes in local drainage conditions. The word 'none' indicates that groundwater was sealed off by the borehole casing or that no water was observed in the exploratory hole upon completion.

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REPORT REF: 24/12780/A/GO
CONTRACT: HORSHAM ROAD, FIVE OAKS

TABLE OF CONTENTS

1 INTRODUCTION 1
2 SITEWORKS 1
3 GROUND CONDITIONS 2
3.1 Geology 2
3.2 Stratigraphy 2
3.3 Groundwater 2
3.4 In Situ Screening 2
4 LABORATORY TESTING 2
5 GROUND CONTAMINATION 3
5.1 Human Health 3
5.2 Vegetation 4
5.3 Preliminary Waste Assessment 4
5.4 Potable Water Supply Pipes 5
REFERENCES
LIST OF ABBREVIATIONS

FIGURES

1 Site Plan
2 Proposed Layout

APPENDICES

1 Exploratory Records
2 Laboratory Test Results
3 Waste

1 INTRODUCTION

The Client proposes to undertake a change of use and conversion of the existing Dutch barn into a residential dwelling at Grainingfold, Horsham Road, Five Oaks ("the site"). A Phase 1 Desk Study issued by Your Environment in May 2022 highlighted potential sources of contamination and recommended that a site investigation be undertaken to assess the active pollutant linkages. This report should be read in conjunction with this earlier assessment.

Accordingly, an exploratory investigation into ground conditions has been made to assess the impact from potentially contaminative usage and to obtain data to inform a risk assessment. The scope of this investigation comprised the construction of six boreholes using hand-held window sampling techniques. During this work in situ screening of samples for volatile organic compounds (VOC) was performed and samples obtained for laboratory testing.

This report describes the work undertaken, presents the information obtained and discusses the ground conditions with respect to the long-term risks from land contamination. Geotechnical testing and interpretation did not form part of this investigation and lies outside the scope of this report.

2 SITEWORKS

The boreholes were constructed on 11th January 2024 at locations as shown on the site plan, drawing no. 24/12780/1, which is presented as Figure 1. The exploratory positions were located to target the footprint of the existing structure to be converted, as well as proposed gardens and provide adequate coverage. Boreholes 2 and 5 were located within the existing Dutch barn.

The depths and descriptions of the strata encountered in the boreholes are given on the records which comprise Appendix 1 to this report. These records note the depths at which samples were taken, the results of in situ screening and any groundwater observations noted at the time of the fieldworks. Photographs which give a general impression of the site at the time of the fieldworks are included below.





3 GROUND CONDITIONS

3.1 Geology

Reference has been made to the published 1:50,000 scale British Geological Survey (BGS) mapping of the area. The site is indicated as being underlain by the Weald Clay Formation of Cretaceous age.

3.2 Stratigraphy

Consideration of the borehole records indicates that made ground or probable made ground varying from brown sandy gravel of stone and flint to dark greyish brown slightly gravelly silty clay was proved to depths of between 0.30m and 0.80m.

Brown/grey silty clay with traces of root hairs in the upper margins was exposed beneath the made ground. These cohesive soils, which become very silty and friable with depth, are typical of the weathered margins of the Weald Clay Formation and the boreholes were concluded within this deposit at 2.10m.

3.3 Groundwater

No groundwater strikes were recorded and each position was observed to be dry upon completion.

3.4 In Situ Screening

During the sampling measurement of soil vapours [VOC] was carried out on the samples of the soils taken using a PhoCheck Tiger PID meter. The composite sample is placed within a sealed plastic bag with a limited air space (headspace) which allows vapours to enter following agitation of the sample bag. The headspace is then measured using the PID meter and the results recorded in ppm as an indicative total VOC. The maximum TVOC recorded during this work was 0.2ppm, which is typical of normal background concentrations. Moreover, no visual or olfactory evidence of contamination was apparent during the sampling.

4 LABORATORY TESTING

Samples at 0.10m depth in boreholes 1 and 4, 0.30m depth in borehole 2 and 0.10m and 0.50m depths in borehole 6 were submitted for geochemical testing at the UKAS accredited laboratories operated by i2 Analytical Ltd and the results are presented as Appendix 2 to this report. The testing was based upon the CSM formulated as part of the earlier Desk Study and

comprises a suite of typical inorganic and organic priority contaminants including metals, PAH, TPH CWG and an asbestos screen. Samples from boreholes 2 at 0.50m and 5 at 0.30m, located within the footprint of the existing and proposed structure, were also subjected to SVOC and VOC analysis.

5 GROUND CONTAMINATION

A Conceptual Site Model (CSM) was formulated for this site as part of the Phase 1 Desk Study, which informed the current Phase 2 intrusive investigation. The CSM produced as part of the Desk Study has been reviewed and updated and is presented in tabular form below. The site is underlain by a non-aquifer and no controlled water receptors are present.

Table 1 - Conceptual Site Model

Source(s)	Potential Pathway(s)	Receptor(s)	Risk Level
Made ground *PAH, TPH, Heavy Metals, SVOC and VOC* *Asbestos/ACM*	Dermal Contact, Ingestion, and Inhalation of dust	Site Workers, End Users	Moderate
	Leaching	Potable Water Supply Pipes	Low to Moderate
	Root uptake	Vegetation and Wildlife	Low to Moderate
Ground Gases from made ground	Soil migration	Proposed Structures	Negligible

5.1 Human Health

A generic assessment of the chronic or long-term risk to human health from soil contamination has been made using the available generic screening criteria. The screening values include the Category 4 Screening Levels [C4SLs] (DEFRA, 2014) and Suitable for Use Levels [S4ULs] (LQM/CIEH, 2014) derived using the CLEA software. It should be appreciated that these do not consider the short-term or acute risks, such as to construction workers or SI personnel.

The results obtained have been compared against the GAC for the proposed end-use category Residential (with homegrown produce) and 2.5% SOM. A summary table of exceedances is provided with the test results.

The results of the testing have recorded elevated levels of PAH at the location of borehole 6 at 0.10m depth. Specifically, benzo(a)pyrene of 94mg/kg has been detected, which exceeds the S4UL GAC of 2.7mg/kg. The sample from 0.50m has also been tested, however, the levels of PAH at this depth are acceptable. A marginal exceedance remains at this depth. Nevertheless, it is evident that the shallow soils around borehole 6 are not suitable for the proposed residential use and some localised remedial measures will be necessary in this part of the site. Further shallow sampling and testing for PAH compounds would be prudent to delineate the lateral extent of the excavation and removal of impacted soils required in the proposed garden areas. The remedial measures need not be implemented beneath areas of permanent hardstanding or proposed structures, as the pathway between source and receptor will be broken.

The site presently has little or no useable topsoil and it will be necessary to import clean soils to form a growing medium in areas of soft landscaping and private garden amenity. A minimum thickness of 150mm clean topsoil is suggested, however, this will be dependent upon any specific landscaping requirements. Any imported soils should be certified clean and from an approved source. The use of topsoil and/or subsoil from non-greenfield sources such as screened, blended or recycled sources are discouraged.

The SVOC and VOC test results were all below the limits of detection for the test undertaken. No elevated levels of VOC were recorded during the in-situ screening and there is no vapour risk posed by these levels.

5.2 Vegetation

The metals boron, copper, nickel and zinc are phytotoxic at certain levels, with their availability being dependent upon soil pH. These levels may not pose a significant long-term health risk to humans, but could be detrimental to plant growth or function. The results obtained suggest that the risks to vegetation are minimal and problems in this regard are not anticipated.

5.3 Preliminary Waste Assessment

It is likely that, if excavated soils cannot be re-used or retained on site, these surplus materials will require off site disposal. It may be possible to divert the unwanted material to a soil treatment hub where it can be recycled. Where material cannot be re-used or recycled then disposal at a licensed landfill site can be considered. It will then be necessary to classify the spoil as inert, non-hazardous or hazardous. A discussion of the current regime for the classification and treatment of waste soils is included in Appendix 3.

An initial assessment of the geochemical results obtained from this investigation has been carried out to provide a preliminary classification of the surplus materials. The HazWaste

Online tool determines whether waste soil should be classified as being non-hazardous or hazardous. The output from the HazWaste assessment is located in Appendix 3. Asbestos was not detected in any of the samples screened. Based on the output waste soil arisings from location 6 at 0.10m are deemed to be hazardous due to the concentration of TPH/PAH. The remaining locations have been tentatively identified as being non-hazardous waste.

This assessment is preliminary and based upon the information obtained from the investigation. Where made ground is excavated then these materials should be stockpiled and segregated. Further sampling, testing and characterisation to accurately classify waste soil arisings may be required.

It should be appreciated that it is the responsibility of the waste producer to sufficiently characterise their waste. Moreover, the agreement of the waste acceptor should be sought.

If hazardous material is to be disposed at a licensed waste landfill site then supplementary waste acceptance criteria [WAC] testing may also be required. Confirmation should be sought from the relevant licensed waste handler or landfill operator.

5.4 Potable Water Supply Pipes

The requirements of the water supply company should be established with regard to any incoming potable water supply pipes.

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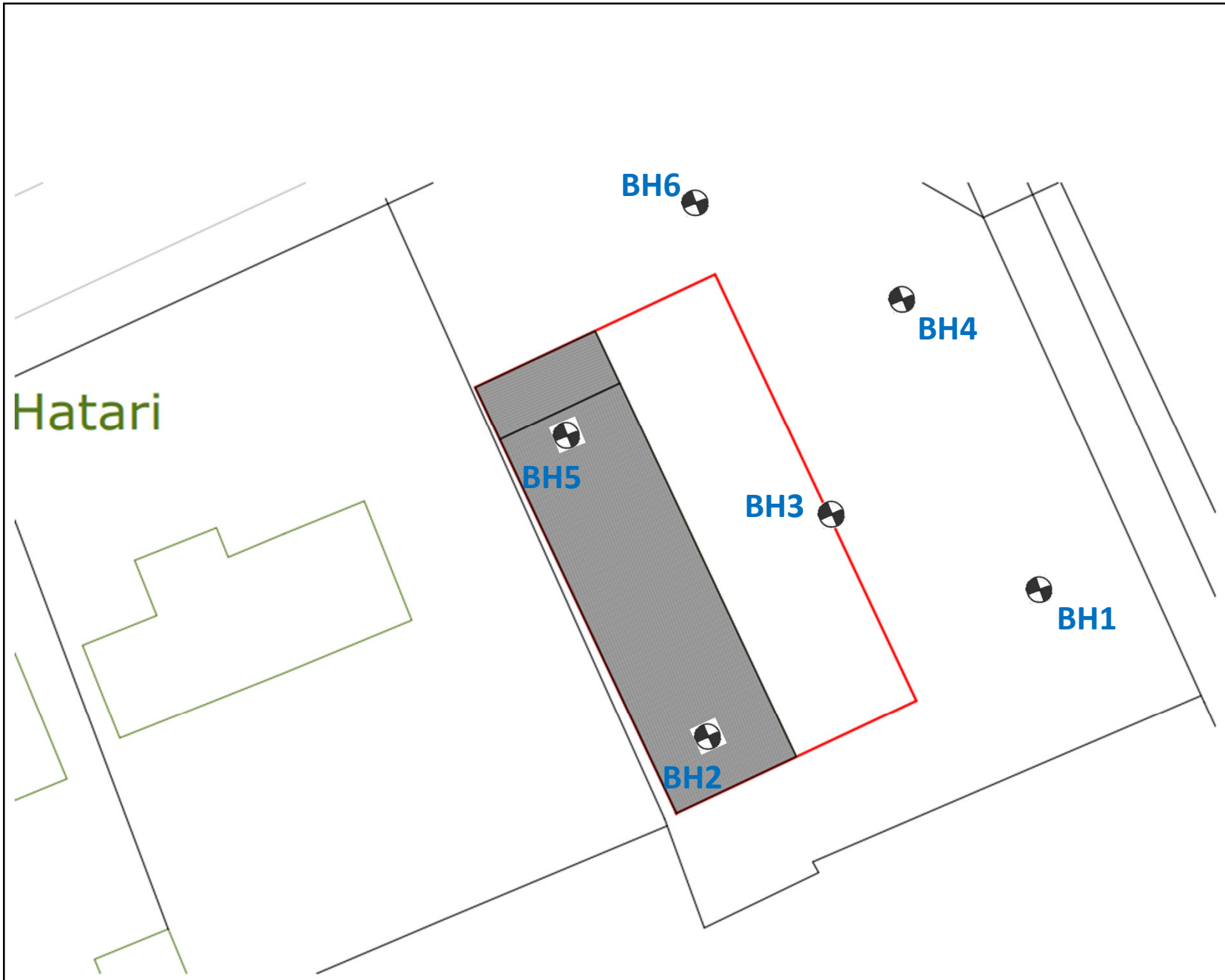
LIST OF ABBREVIATIONS

AOD	-	Above Ordnance Datum
ACM	-	Asbestos-containing Material
AST	-	Above-ground Storage Tank
BGS	-	British Geological Survey
BH	-	Borehole
BRE	-	Building Research Establishment
BSI	-	British Standards Institution
BS	-	British Standard
C4SL	-	Category Four Screening Level
CIRIA	-	Construction Industry Research and Information Association
CP	-	Cable Percussive
DPH	-	Dynamic Probing Heavy
DPSH	-	Dynamic Probing Super Heavy
EA	-	Environment Agency
GAC	-	Generic Assessment Criteria
LL	-	Liquid Limit
mAOD	-	Metres Above Ordnance Datum
mBGL	-	Metres Below Ground Level
mOD	-	Metres Ordnance Datum
OS	-	Ordnance Survey
PAH	-	Polycyclic Aromatic Hydrocarbons
PCB	-	Polychlorinated Biphenyl
PID	-	Photo Ionisation Detector
PL	-	Plastic Limit
PSD	-	Particle Size Distribution
SGV	-	Soil Guideline Value
SOM	-	Soil Organic Matter
SPT	-	Standard Penetration Test
SPZ	-	Source Protection Zone
SVOC	-	Semi-volatile Organic Compounds
TPH	-	Total Petroleum Hydrocarbon
UST	-	Underground Storage Tank
UXB	-	Unexploded Bombs
UXO	-	Unexploded Ordnance
VOC	-	Volatile Organic Compound

FIGURE 1

SITE PLAN



Legend:

- Borehole Location
- Trial Pit Location
- Site Boundary

Title:	Site Plan
Dwg No:	23/12780/A/1
Drawn by:	GO
Client:	Susan Hart
Contract:	Horsham Road, Five Oaks
Job Ref:	23/12780/GO
Scale:	NTS
Revision:	0
Issue Date:	01/02/2024

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FIGURE 2

PROPOSED LAYOUT

Ordnance Survey ©
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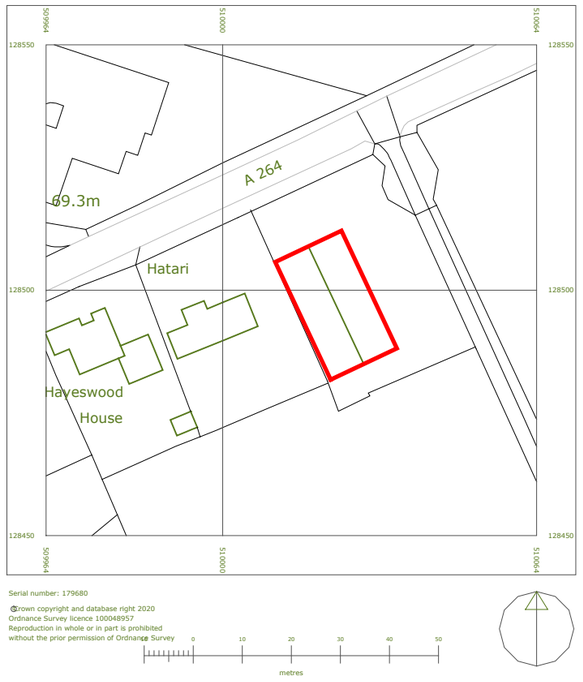

Location Plan

1:1250

Address

Grainingfold Horsham Road
Five Oaks Billingshurst
West Sussex RH14 9AT

Drawing
Site:

Location Plan

Scale @ A3
1:1250

Date
14.07.2020

Issue Date
14.07.2020

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MD	BK

Job No.
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Drawing No.
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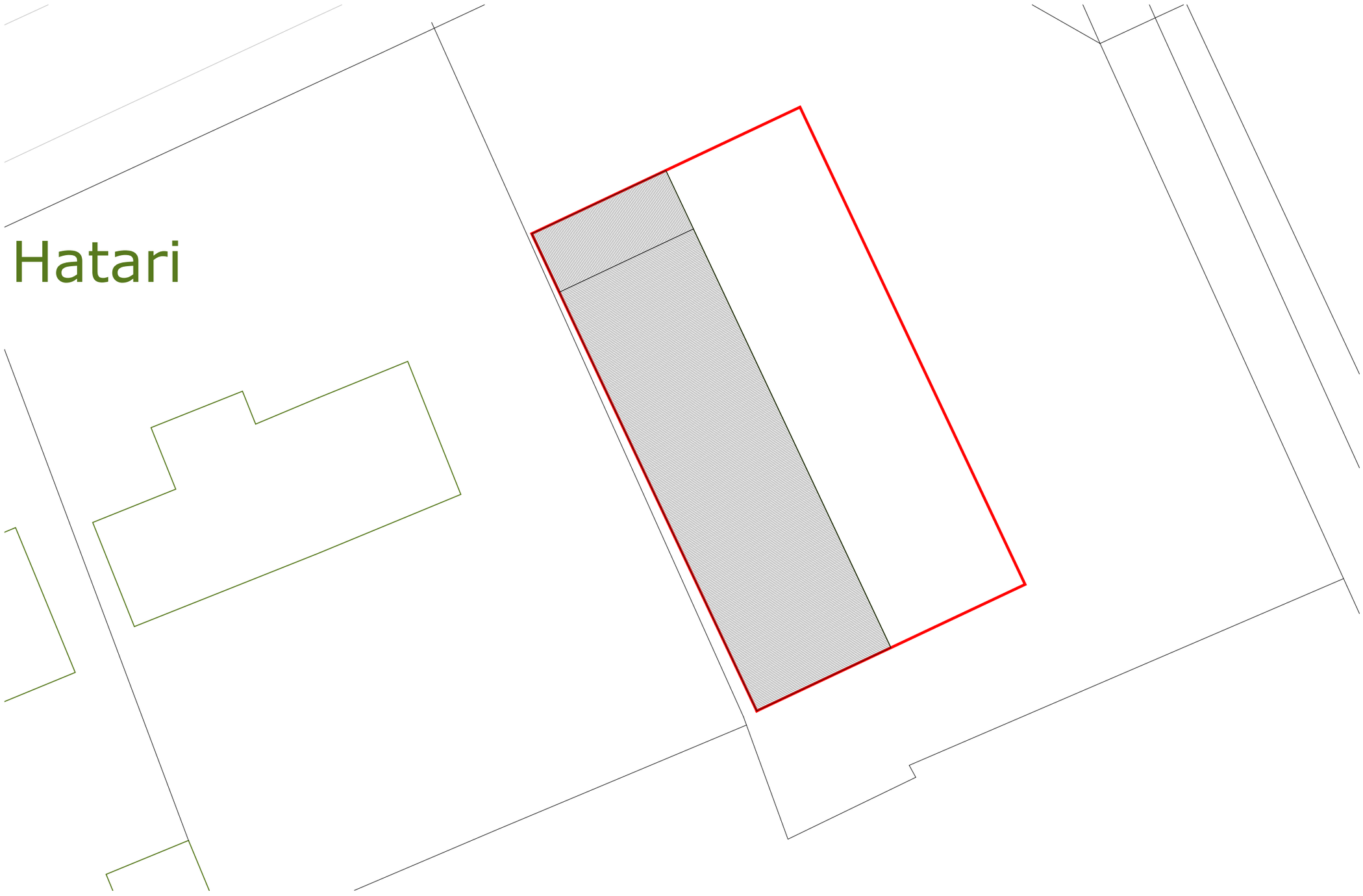

Block Plan
1:200

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Block Plan

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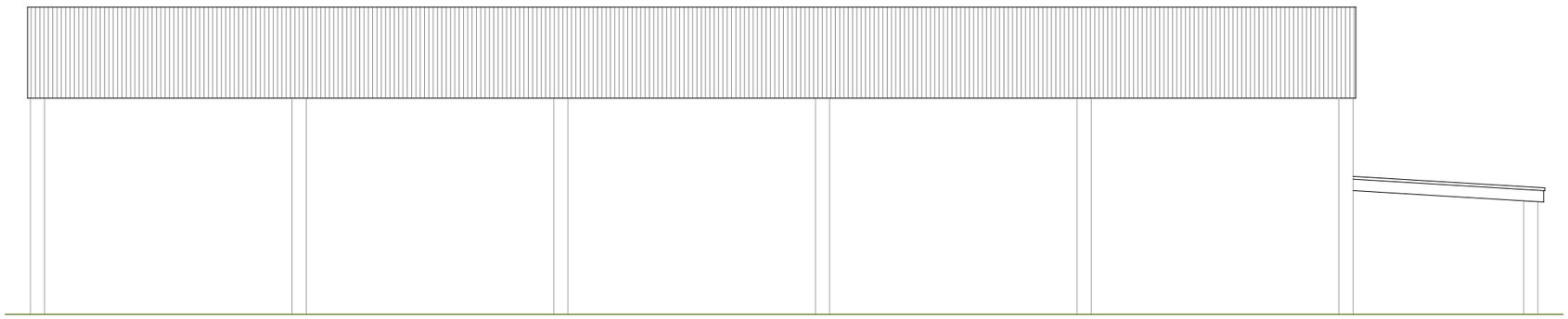

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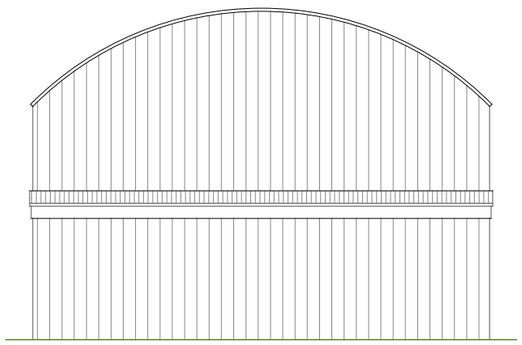

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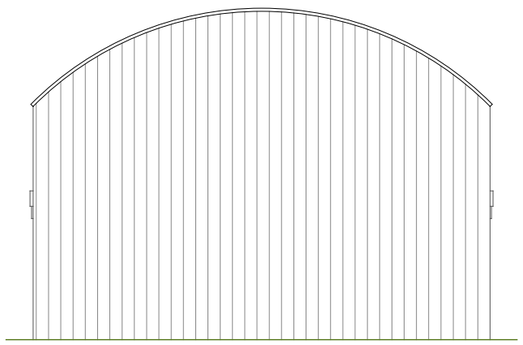

South
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Address
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Existing:

Elevations

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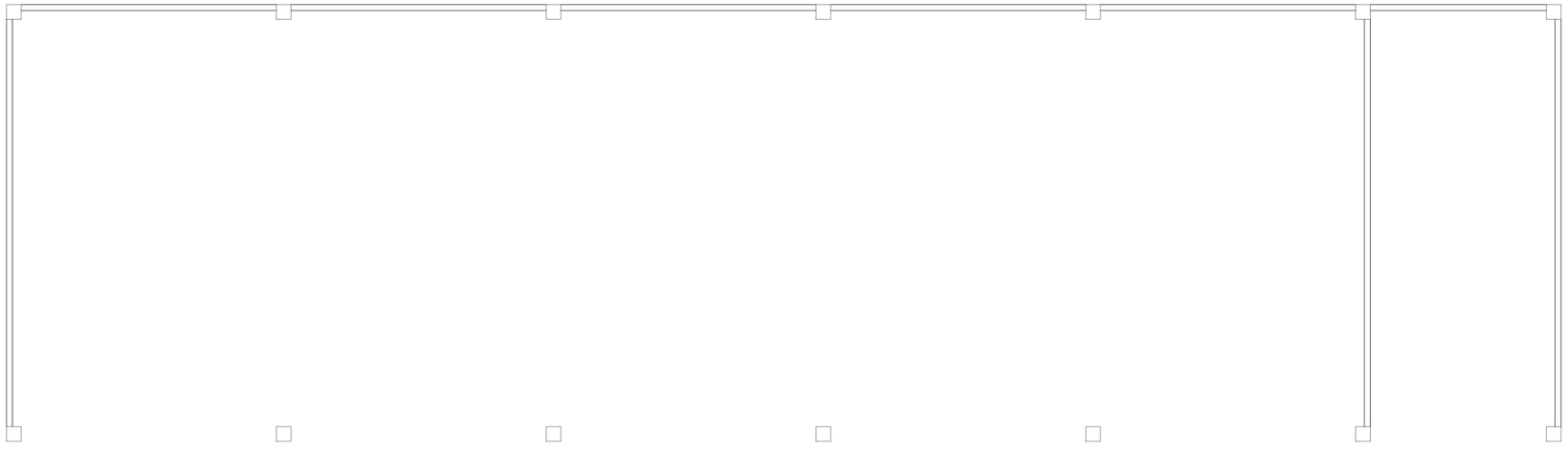

Floor Plan

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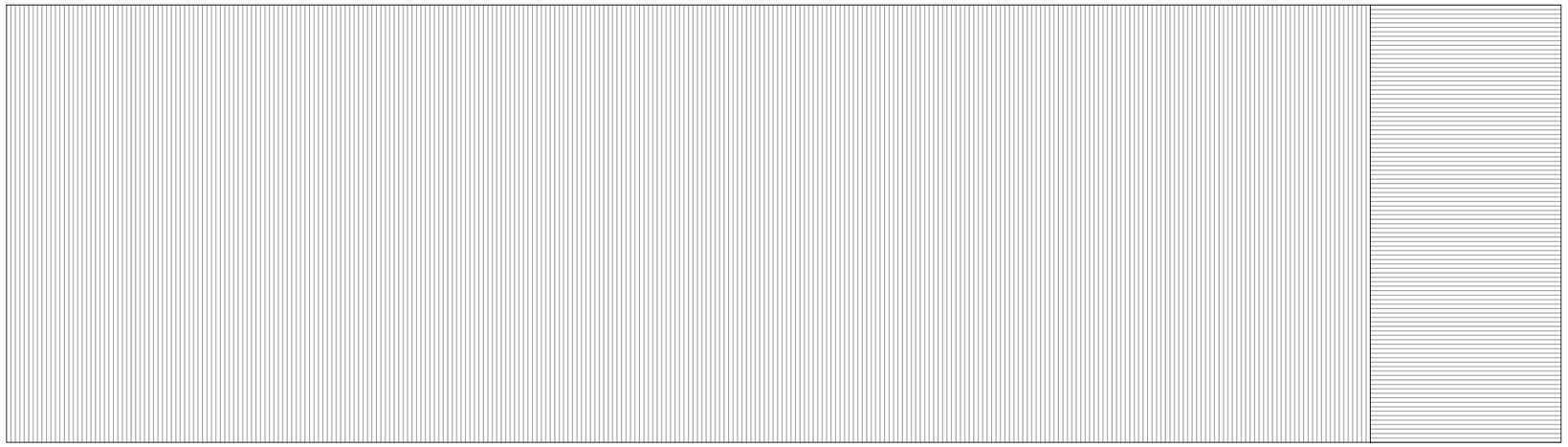

Roof Plan

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Address

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Drawing

Existing:

Floor Plan
Roof Plan

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Corrugated metal sheets to roof retained

walls clad with dark stained vertical boarding

West
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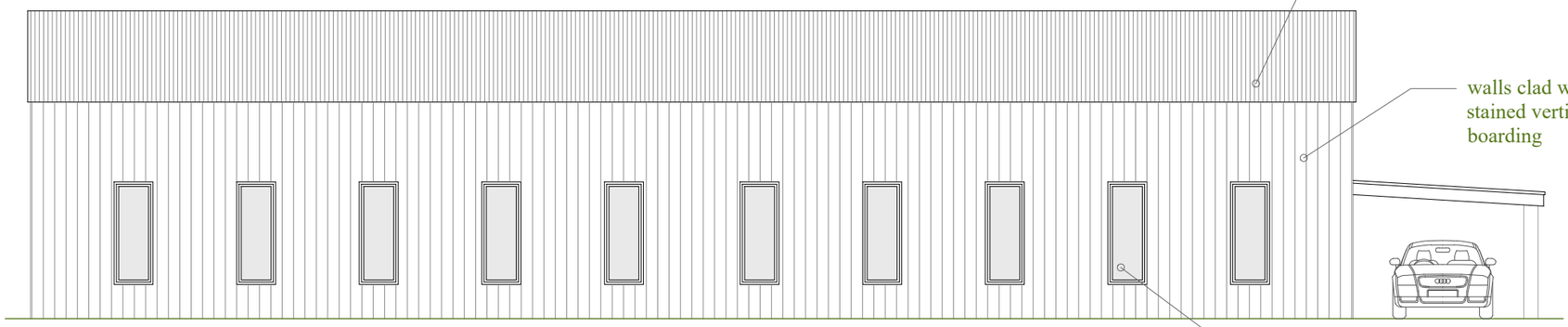

Corrugated metal sheets to roof retained

walls clad with dark stained vertical boarding

simple vertical emphasis windows to maintain utilitarian appearance

East
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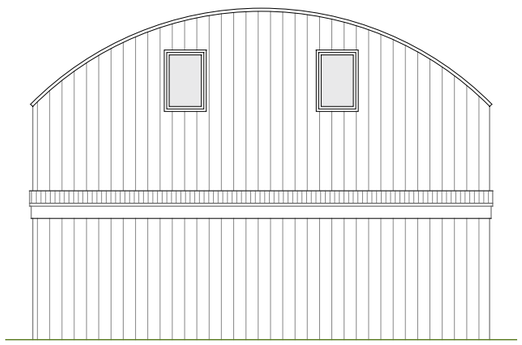

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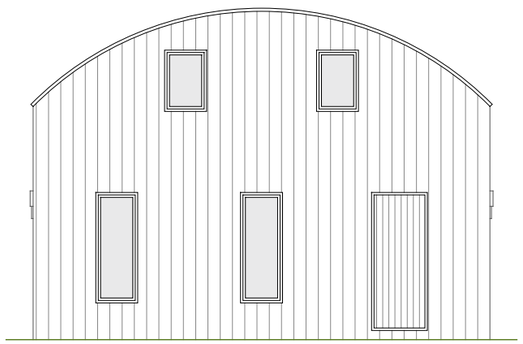

South
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Address

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Elevations

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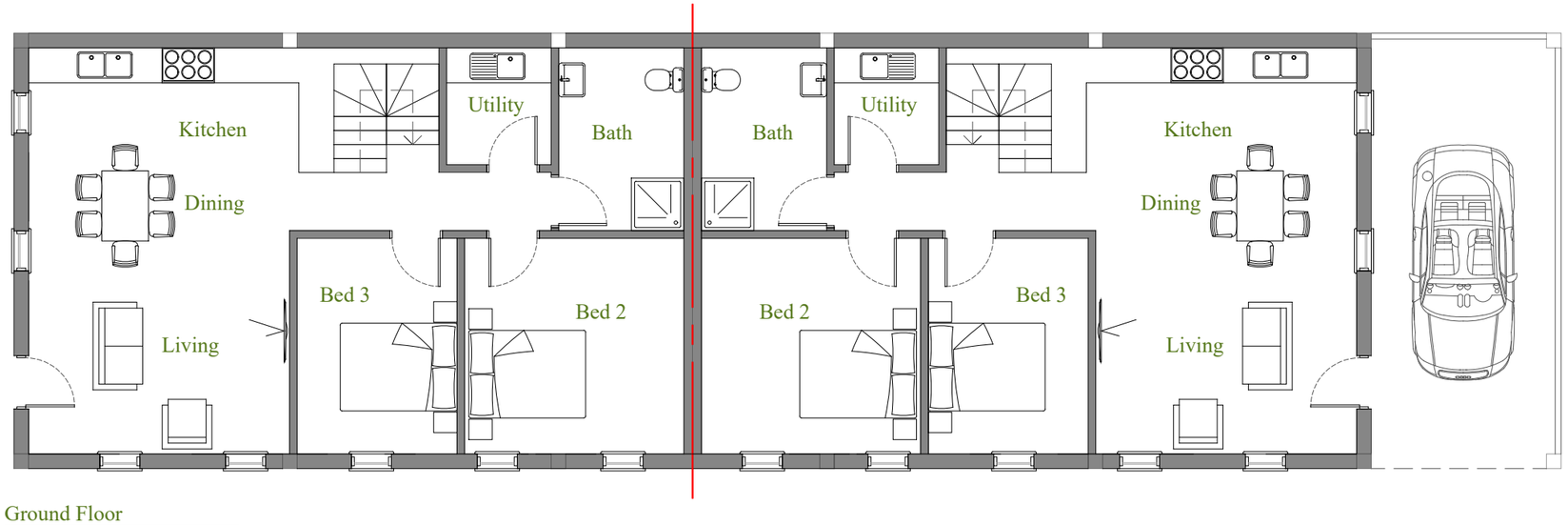

Ground Floor

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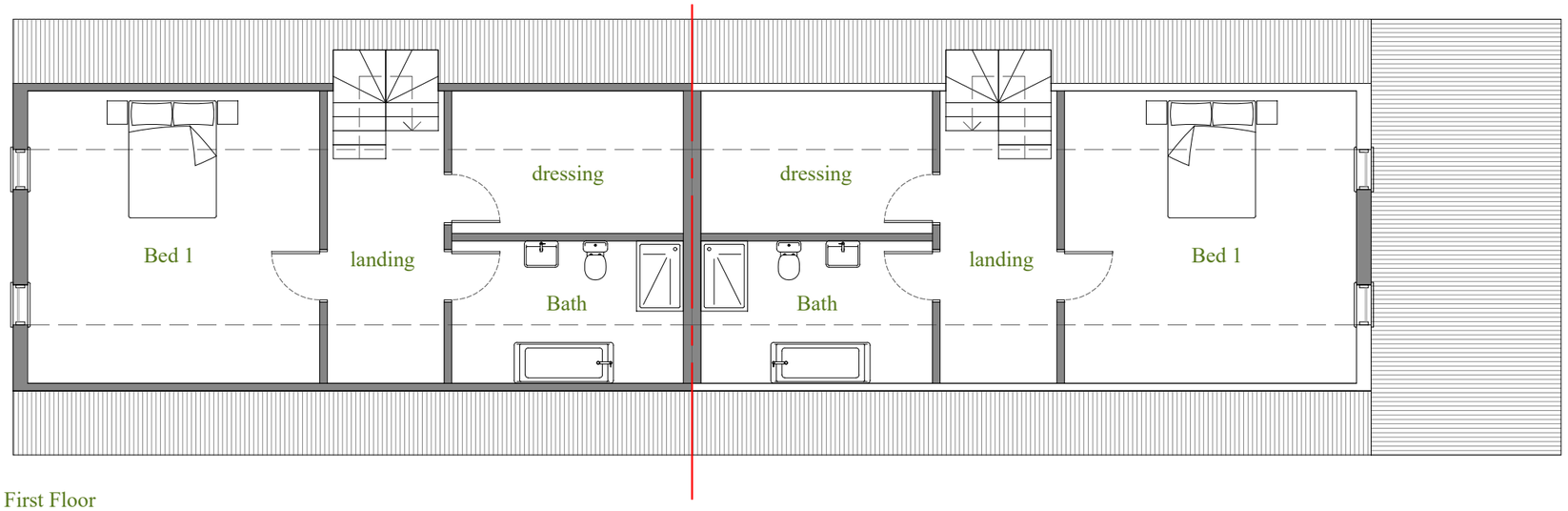

First Floor

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Scale @ A3

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APPENDIX 1

EXPLORATORY RECORDS

ALBURY S.I. LTD Miltons Yard, Petworth Road, Witley, Surrey GU8 5LH		**BOREHOLE**	1
Contract	Horsham Road, Five Oaks	**Report Ref**	24/12780/GO
Client	Susan Hart	**Date**	11/01/2024
Site Address	Grainingfold, Horsham Road, Five Oaks, West Sussex RH14 9AT	**Ground Level**	

Type of excavator	Window Sampler	**Water level after completion, m**	dry

Water strikes, m		**Dimensions, m**		**Ease of excavation, m**		
1	none	Diameter	0.06	Very easy	Difficult	1.20-2.10
2				Moderate GL-1.20	Very hard	

Remarks
No obvious visual or olfactory evidence of contamination

Samples or tests		**Shear Strength kPa**	**PID TVOC ppm**	**Depth m**	**Legend**	**Strata Description**
Type	**Depth, m**					
D	0.10		0.1			Grass over MADE GROUND (dark brown slightly gravelly clayey SAND. Gravel is of flint)
D	0.30		0.1	0.30		
D	0.50		0.1			Brown/grey silty CLAY with traces of root hairs in the upper 0.50m
D	1.00		0			
D	1.50		0.2	1.50		Brown/grey friable very silty CLAY with occasional siltstone fragments
D	2.00		0.1	2.10		END OF BOREHOLE

Sample Code: B - Large Disturbed D - Small Disturbed W - Water Sample R - Root Sample T - Tube Sample

ALBURY S.I. LTD Miltons Yard, Petworth Road, Witley, Surrey GU8 5LH		**BOREHOLE**	**2**
Contract	Horsham Road, Five Oaks	**Report Ref**	24/12780/GO
Client	Susan Hart	**Date**	11/01/2024
Site Address	Grainingfold, Horsham Road, Five Oaks, West Sussex RH14 9AT	**Ground Level**	

Type of excavator	Window Sampler	**Water level after completion, m**	dry

Water strikes, m	**Dimensions, m**	**Ease of excavation, m**
1 none	Diameter 0.06	Very easy — Difficult 1.40-2.10
2		Moderate GL-1.40 — Very hard

Remarks
No obvious visual or olfactory evidence of contamination

Samples or tests		Shear Strength kPa	PID TVOC ppm	Depth m	Legend	Strata Description
Type	**Depth, m**					
D	0.10		0.1	0.15		MADE GROUND (brown sandy GRAVEL of stone and flint)
D	0.30		0.1			Brown/grey silty CLAY with occasional partings of silt/finesand (probable disturbed or MADE GROUND - traces of brick at 0.50m)
D	0.50		0.1	0.60		
D	1.00		0.1			Stiff brown/grey silty CLAY
D	1.50		0.1	1.40		Brown/grey friable very silty CLAY with occasional siltstone fragments
D	2.00		0	2.10		END OF BOREHOLE

Sample Code: B - Large Disturbed D - Small Disturbed W - Water Sample R - Root Sample T - Tube Sample

ALBURY S.I. LTD Miltons Yard, Petworth Road, Witley, Surrey GU8 5LH		**BOREHOLE**	**3**
Contract	Horsham Road, Five Oaks	**Report Ref**	24/12780/GO
Client	Susan Hart	**Date**	11/01/2024
Site Address	Grainingfold, Horsham Road, Five Oaks, West Sussex RH14 9AT	**Ground Level**	

Type of excavator	Window Sampler	**Water level after completion, m**	dry

Water strikes, m		**Dimensions, m**		**Ease of excavation, m**			
1	none	Diameter	0.06	Very easy		Difficult	1.20-2.10
2				Moderate	GL-1.20	Very hard	

Remarks
No obvious visual or olfactory evidence of contaminaton

Samples or tests		**Shear Strength kPa**	**PID TVOC ppm**	**Depth m**	**Legend**	**Strata Description**
Type	**Depth, m**					
D	0.10		0	0.20		Grass over MADE GROUND (dark brown clayey SAND and GRAVEL of flint with occasional roots)
D	0.30		0			Brown/grey silty CLAY with root hairs and traces of fine flint and brick fragments (probable disturbed or MADE GROUND)
D	0.50		0.1	0.50		Stiff brown/grey silty CLAY with root hairs and traces of siltstone
D	1.00		0.1	1.20		Brown/grey friable very silty CLAY with some siltstone fragments and partings of silt
D	1.50		0.1			
D	2.00		0	2.10		END OF BOREHOLE

Sample Code: B - Large Disturbed D - Small Disturbed W - Water Sample R - Root Sample T - Tube Sample

ALBURY S.I. LTD Miltons Yard, Petworth Road, Witley, Surrey GU8 5LH		**BOREHOLE**	4
Contract	Horsham Road, Five Oaks	**Report Ref**	24/12780/GO
Client	Susan Hart	**Date**	11/01/2024
Site Address	Grainingfold, Horsham Road, Five Oaks, West Sussex RH14 9AT	**Ground Level**	

Type of excavator	Window Sampler	**Water level after completion, m**	dry

Water strikes, m		**Dimensions, m**		**Ease of excavation, m**			
1	none	Diameter	0.06	Very easy		Difficult	1.20-2.10
2				Moderate	GL-1.20	Very hard	

Remarks
No obvious visual or olfactory evidence of contamination

Samples or tests		**Shear Strength kPa**	**PID TVOC ppm**	**Depth m**	**Legend**	**Strata Description**
Type	**Depth, m**					
D	0.10		0			Grass over MADE GROUND (dark brown slightly gravelly clayey SAND with occasional roots. Gravel is of coarse flint)
D	0.30		0	0.30		Brown/grey silty CLAY with traces of sand and occasional root hairs at 0.50m and 1.00m
D	0.50		0			
D	1.00		0			
D	1.50		0	1.50		Brown/grey friable very silty CLAY with occasional siltstone fragments
D	2.00		0	2.10		END OF BOREHOLE

Sample Code: B - Large Disturbed D - Small Disturbed W - Water Sample R - Root Sample T - Tube Sample

ALBURY S.I. LTD Miltons Yard, Petworth Road, Witley, Surrey GU8 5LH		**BOREHOLE**	5
Contract	Horsham Road, Five Oaks	**Report Ref**	24/12780/GO
Client	Susan Hart	**Date**	11/01/2024
Site Address	Grainingfold, Horsham Road, Five Oaks, West Sussex RH14 9AT	**Ground Level**	

Type of excavator	Window Sampler	**Water level after completion, m**	dry

Water strikes, m		**Dimensions, m**		**Ease of excavation, m**			
1	none	Diameter	0.06	Very easy		Difficult	1.40-2.10
2				Moderate	GL-1.40	Very hard	

Remarks
No obvious visual or olfactory evidence of contamination

Samples or tests		**Shear Strength kPa**	**PID TVOC ppm**	**Depth m**	**Legend**	**Strata Description**
Type	**Depth, m**					
D	0.10		0	0.15		MADE GROUND (brown sandy GRAVEL of stone and flint)
D	0.30		0.1	0.40		Brown and grey mottled silty CLAY with occasional roots and rare fine flint gravel and brick particle (possible disturbed or MADE GROUND)
D	0.50		0			Brown silty CLAY
D	1.00		0			
D	1.50		0	1.40		Brownish grey friable very silty CLAY/clayey SILT with occasional siltstone fragments
D	2.00		0	2.10		END OF BOREHOLE

Sample Code: B - Large Disturbed D - Small Disturbed W - Water Sample R - Root Sample T - Tube Sample

ALBURY S.I. LTD Miltons Yard, Petworth Road, Witley, Surrey GU8 5LH		**BOREHOLE**	6
Contract	Horsham Road, Five Oaks	**Report Ref**	24/12780/GO
Client	Susan Hart	**Date**	11/01/2024
Site Address	Grainingfold, Horsham Road, Five Oaks, West Sussex RH14 9AT	**Ground Level**	

Type of excavator	Window Sampler	**Water level after completion, m**	dry

Water strikes, m		**Dimensions, m**		**Ease of excavation, m**			
1	none	Diameter	0.06	Very easy		Difficult	1.00-2.10
2				Moderate	GL-1.00	Very hard	

Remarks
No obvious visual or olfactory evidence of contamination

Samples or tests		**Shear Strength kPa**	**PID TVOC ppm**	**Depth m**	**Legend**	**Strata Description**
Type	**Depth, m**					
D	0.10		0.1			Grass over MADE GROUND (dark brown clayey gravelly SAND with rootlets. Gravel is of flint and brick fragments)
D	0.30		0.1			
				0.40		
D	0.50		0.3			MADE GROUND (dark greyish brown slightly gravelly silty CLAY. Gravel is of flint and brick fragments)
				0.80		
D	1.00		0.2			Brown/grey silty CLAY with occasional root hairs
				1.20		
D	1.50		0.2			Brownish grey/brown very silty CLAY with occasional partings of sand and traces of siltstone, becoming friable c.1.50m
D	2.00		0.8			
				2.10		END OF BOREHOLE

Sample Code: B - Large Disturbed D - Small Disturbed W - Water Sample R - Root Sample T - Tube Sample

APPENDIX 2

LABORATORY TEST RESULTS

Albury SI Ltd
Miltons Yard
Petworth Road
Witley
Surrey
GU8 5LH

e: james@alburysi.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 24-000289

Project / Site name:	Horsham Road, Five Oaks	**Samples received on:**	15/01/2024
Your job number:	24 12780 GO	**Samples instructed on/ Analysis started on:**	15/01/2024
Your order number:	15089	**Analysis completed by:**	23/01/2024
Report Issue Number:	1	**Report issued on:**	23/01/2024
Samples Analysed:	7 soil samples		

Signed:

Adam Fenwick
Technical Reviewer
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 are representative of the samples submitted for analysis.

Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102798	102799	102800	102801	102802
Sample Reference				1	2	2	4	5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.30	0.50	0.10	0.30
Date Sampled				11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
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	30	< 0.1
Moisture Content	%	0.01	NONE	24	17	18	25	17
Total mass of sample received	kg	0.1	NONE	0.6	0.6	0.6	0.3	0.3
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO	-	DSO	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	7.8	8.2	-	7.8	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Total Sulphate as SO4	mg/kg	50	MCERTS	880	710	-	600	-
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	35	81	-	31	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	17.4	40.6	-	15.7	-
Sulphide	mg/kg	1	MCERTS	< 1.0	7	-	< 1.0	-
Elemental Sulphur	mg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.8	0.9	-	4.2	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.21	0.05	< 0.05	2	-
Acenaphthylene	mg/kg	0.05	MCERTS	0.06	0.08	< 0.05	0.11	-
Acenaphthene	mg/kg	0.05	MCERTS	0.13	< 0.05	< 0.05	0.19	-
Fluorene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05	0.22	-
Phenanthrene	mg/kg	0.05	MCERTS	2.4	0.79	< 0.05	7.7	-
Anthracene	mg/kg	0.05	MCERTS	0.52	0.15	< 0.05	0.24	-
Fluoranthene	mg/kg	0.05	MCERTS	7.6	1.9	< 0.05	6.9	-
Pyrene	mg/kg	0.05	MCERTS	7.7	1.6	< 0.05	6.1	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	3.1	0.87	< 0.05	1.3	-
Chrysene	mg/kg	0.05	MCERTS	3.1	1	< 0.05	3.3	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	3	1	< 0.05	3.2	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.1	0.38	< 0.05	1.1	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.4	0.75	< 0.05	2.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.2	0.46	< 0.05	1.2	-
Dibenzo(a,h)anthracene	mg/kg	0.05	MCERTS	0.2	0.1	< 0.05	0.22	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2	0.56	< 0.05	1.3	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	33.8	9.69	-	37.2	-

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102798	102799	102800	102801	102802
Sample Reference				1	2	2	4	5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.30	0.50	0.10	0.30
Date Sampled				11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
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								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	16	-	13	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.8	1.2	-	0.76	-
Boron (water soluble)	mg/kg	0.2	MCERTS	2.2	1.7	-	1.8	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	0.6	-
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2	-	< 1.2	-
Chromium (III)	mg/kg	1	NONE	24	32	-	21	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	32	-	21	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	18	27	-	22	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	38	35	-	36	-
Manganese (aqua regia extractable)	mg/kg	1	MCERTS	1700	1300	-	750	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	36	-	20	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	37	38	-	51	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	100	-	130	-
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	-	< 0.020	-
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020	-	< 0.020	-
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050	-	< 0.050	-
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	-
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0	-
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8	MCERTS	< 8.0	< 8.0	-	36	-
TPHCWG - Aliphatic >C21 - C40 EH_CU_1D_AL_#1_#2	mg/kg	10	NONE	< 10	< 10	-	45	-
TPHCWG - Aliphatic >C35 - C44 EH_CU_1D_AL_#1_#2	mg/kg	8.4	NONE	< 8.4	< 8.4	-	8.4	-
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10	NONE	< 10	< 10	-	36	-
TPHCWG - Aliphatic >C5 - C44 EH_CU+HS_1D_AL_#1_#2	mg/kg	10	NONE	< 10	< 10	-	45	-
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	-	< 0.010	-
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010	-	< 0.010	-
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050	-	< 0.050	-
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	-
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0	-
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	MCERTS	11	< 10	-	< 10	-
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	MCERTS	28	< 10	-	21	-
TPHCWG - Aromatic >EC21 - EC40 EH_CU_1D_AR_#1_#2	mg/kg	10	NONE	29	< 10	-	22	-
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR_#1_#2	mg/kg	8.4	NONE	< 8.4	< 8.4	-	< 8.4	-
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10	NONE	39	< 10	-	21	-
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR_#1_#2	mg/kg	10	NONE	39	< 10	-	21	-
TPH Total >C6 - C40 EH_CU+HS_1D_TOTAL_#1_#2	mg/kg	10	NONE	40	< 10	-	74	-
Petroleum Range Organics (C6 - C10) HS_1D_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	-
TPH (C10 - C40) EH_CU_1D_TOTAL_#1_#2	mg/kg	10	MCERTS	40	< 10	-	74	-

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102798	102799	102800	102801	102802
Sample Reference				1	2	2	4	5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.30	0.50	0.10	0.30
Date Sampled				11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Chloroethane	µg/kg	5	NONE	-	-	-	-	< 5.0
Bromomethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Vinyl Chloride	µg/kg	5	NONE	-	-	-	-	< 5.0
Trichlorofluoromethane	µg/kg	5	NONE	-	-	-	-	< 5.0
1,1-Dichloroethene	µg/kg	5	NONE	-	-	-	-	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	-	-	< 5.0
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-	-	-	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	-	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
2,2-Dichloropropane	µg/kg	5	NONE	-	-	-	-	< 5.0
Chloroform	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	NONE	-	-	-	-	< 5.0
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Trichloroethene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Dibromomethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Bromodichloromethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Dibromochloromethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Tetrachloroethene	µg/kg	5	NONE	-	-	-	-	< 5.0
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Chlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Bromoform	µg/kg	5	NONE	-	-	-	-	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-	-	-	< 5.0
Bromobenzene	µg/kg	5	NONE	-	-	-	-	< 5.0
n-Propylbenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
2-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
4-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
tert-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
sec-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102798	102799	102800	102801	102802
Sample Reference				1	2	2	4	5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.30	0.50	0.10	0.30
Date Sampled				11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Butylbenzene	µg/kg	5	NONE	-	-	-	-	< 5.0
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0
Hexachlorobutadiene	µg/kg	5	NONE	-	-	-	-	< 5.0
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	< 5.0

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	ISO 17025	-	-	< 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	NONE	-	-	< 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	-	-
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	NONE	-	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	< 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	NONE	-	-	< 0.1	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.20	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	< 0.3	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	< 0.3	-	-

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

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102803	102804
Sample Reference				6	6
Sample Number				None Supplied	None Supplied
Depth (m)				0.10	0.50
Date Sampled				11/01/2024	11/01/2024
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	%	0.01	NONE	13	21
Total mass of sample received	kg	0.1	NONE	0.6	0.6
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	8.2	8.2
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	540	320
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	52	120
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	25.9	59.2
Sulphide	mg/kg	1	MCERTS	7	< 1.0
Elemental Sulphur	mg/kg	5	MCERTS	< 5.0	< 5.0
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	4.6	0.6
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	0.64	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	2.6	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	8.9	< 0.05
Fluorene	mg/kg	0.05	MCERTS	6.5	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	70	< 0.05
Anthracene	mg/kg	0.05	MCERTS	22	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	180	0.13
Pyrene	mg/kg	0.05	MCERTS	170	0.13
Benzo(a)anthracene	mg/kg	0.05	MCERTS	95	0.08
Chrysene	mg/kg	0.05	MCERTS	94	0.08
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	120	0.09
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	39	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	94	0.06
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	51	0.05
Dibenzo(a,h)anthracene	mg/kg	0.05	MCERTS	14	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	56	0.06
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	1020	< 0.80

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102803	102804
Sample Reference				6	6
Sample Number				None Supplied	None Supplied
Depth (m)				0.10	0.50
Date Sampled				11/01/2024	11/01/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.5	9.5
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.65	1.8
Boron (water soluble)	mg/kg	0.2	MCERTS	1.2	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2
Chromium (hexavalent) Low Level	mg/kg	1.2	NONE	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	15	40
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	43	19
Manganese (aqua regia extractable)	mg/kg	1	MCERTS	420	1400
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	37
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24	43
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	97	77
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >C5 - C6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C6 - C8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020	< 0.020
TPHCWG - Aliphatic >C8 - C10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aliphatic >C10 - C12 EH_CU_1D_AL_#1_#2	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >C12 - C16 EH_CU_1D_AL_#1_#2	mg/kg	2	MCERTS	13	< 2.0
TPHCWG - Aliphatic >C16 - C21 EH_CU_1D_AL_#1_#2	mg/kg	8	MCERTS	25	< 8.0
TPHCWG - Aliphatic >C21 - C35 EH_CU_1D_AL_#1_#2	mg/kg	8	MCERTS	140	< 8.0
TPHCWG - Aliphatic >C21 - C40 EH_CU_1D_AL_#1_#2	mg/kg	10	NONE	200	< 10
TPHCWG - Aliphatic >C35 - C44 EH_CU_1D_AL_#1_#2	mg/kg	8.4	NONE	160	< 8.4
TPHCWG - Aliphatic >C5 - C35 EH_CU+HS_1D_AL_#1_#2	mg/kg	10	NONE	170	< 10
TPHCWG - Aliphatic >C5 - C44 EH_CU+HS_1D_AL_#1_#2	mg/kg	10	NONE	340	< 10
TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050	< 0.050
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR_#1_#2	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR_#1_#2	mg/kg	2	MCERTS	23	< 2.0
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR_#1_#2	mg/kg	10	MCERTS	300	< 10
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR_#1_#2	mg/kg	10	MCERTS	820	< 10
TPHCWG - Aromatic >EC21 - EC40 EH_CU_1D_AR_#1_#2	mg/kg	10	NONE	980	< 10
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR_#1_#2	mg/kg	8.4	NONE	270	< 8.4
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR_#1_#2	mg/kg	10	NONE	1100	< 10
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR_#1_#2	mg/kg	10	NONE	1400	< 10
TPH Total >C6 - C40 EH_CU+HS_1D_TOTAL_#1_#2	mg/kg	10	NONE	1600	< 10
Petroleum Range Organics (C6 - C10) HS_1D_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0
TPH (C10 - C40) EH_CU_1D_TOTAL_#1_#2	mg/kg	10	MCERTS	1600	< 10

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102803	102804
Sample Reference				6	6
Sample Number				None Supplied	None Supplied
Depth (m)				0.10	0.50
Date Sampled				11/01/2024	11/01/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
VOCs					
Chloromethane	µg/kg	5	ISO 17025	-	-
Chloroethane	µg/kg	5	NONE	-	-
Bromomethane	µg/kg	5	ISO 17025	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-
Trans 1,2-dichloroethylene	µg/kg	5	NONE	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-
2,2-Dichloropropane	µg/kg	5	NONE	-	-
Chloroform	µg/kg	5	ISO 17025	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Carbontetrachloride	µg/kg	5	NONE	-	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	-
Trichloroethene	µg/kg	5	ISO 17025	-	-
Dibromomethane	µg/kg	5	ISO 17025	-	-
Bromodichloromethane	µg/kg	5	ISO 17025	-	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	-
Dibromochloromethane	µg/kg	5	ISO 17025	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	-
Chlorobenzene	µg/kg	5	ISO 17025	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
Styrene	µg/kg	5	ISO 17025	-	-
Bromoform	µg/kg	5	NONE	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	NONE	-	-
Bromobenzene	µg/kg	5	NONE	-	-
n-Propylbenzene	µg/kg	5	ISO 17025	-	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-

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Analytical Report Number: 24-000289
Project / Site name: Horsham Road, Five Oaks
Your Order No: 15089

Lab Sample Number				102803	102804
Sample Reference				6	6
Sample Number				None Supplied	None Supplied
Depth (m)				0.10	0.50
Date Sampled				11/01/2024	11/01/2024
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**		
Butylbenzene	µg/kg	5	NONE	-	-
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	-

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	ISO 17025	-	-
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	NONE	-	-
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	-	-
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	NONE	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-
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	NONE	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	MCERTS	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-
Azobenzene	mg/kg	0.3	NONE	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-
Hexachlorobenzene	mg/kg	0.2	MCERTS	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-

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

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Analytical Report Number : 24-000289
Project / Site name: Horsham Road, Five Oaks

* 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 *
102798	1	None Supplied	0.1	Brown clay and loam with gravel and vegetation
102799	2	None Supplied	0.3	Brown clay and sand with gravel
102800	2	None Supplied	0.5	Brown clay and sand with gravel
102801	4	None Supplied	0.1	Brown clay and loam with vegetation and stones
102802	5	None Supplied	0.3	Brown clay and sand with gravel
102803	6	None Supplied	0.1	Brown loam and clay with gravel and vegetation
102804	6	None Supplied	0.5	Brown clay with vegetation

Analytical Report Number : 24-000289
Project / Site name: Horsham Road, Five Oaks

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

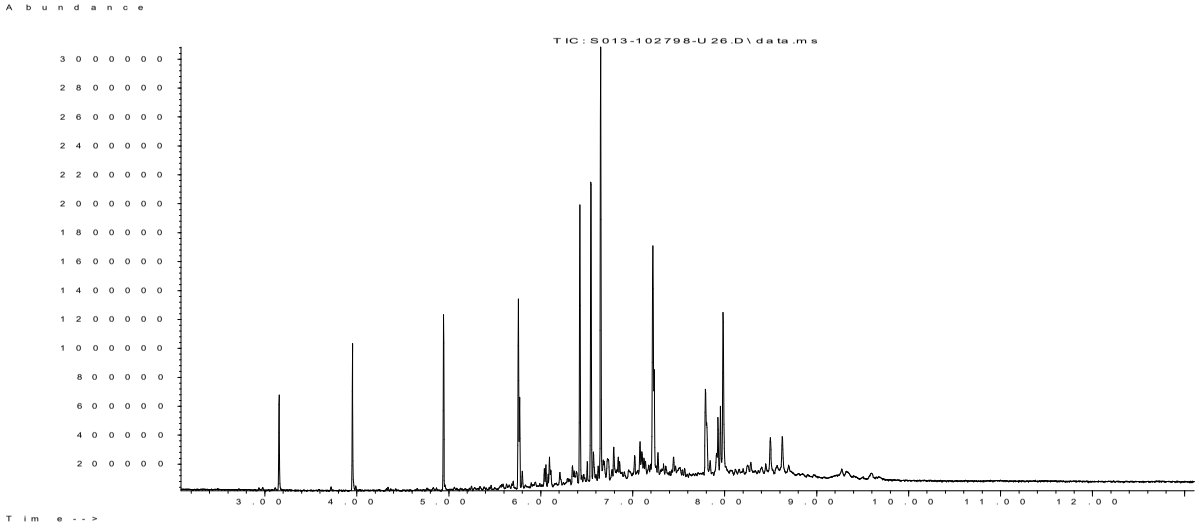
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	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.	L019B	D	NONE
Elemental sulphur in soil	Determination of elemental sulphur in soil by extraction in acetonitrile followed by HPLC	In-house method based on Secondsite Property Holdings Guidance for Assessing and Managing Potential	L021B	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	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	L064B	D	MCERTS
TPH Chromatogram in soil	TPH Chromatogram in soil	In-house method	L064B	D	NONE
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088	D/W	MCERTS
Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS	In-house method	L076B/L088	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080	W	NONE

Analytical Report Number : 24-000289
Project / Site name: Horsham Road, Five Oaks

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Hexavalent chromium in soil (low 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	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.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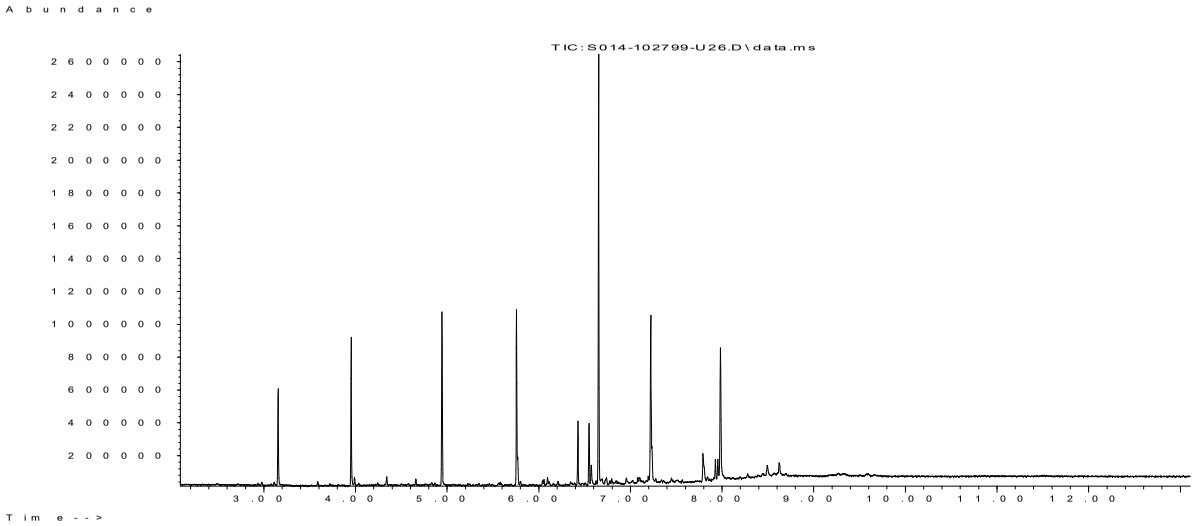
11.00
12.00
Time -->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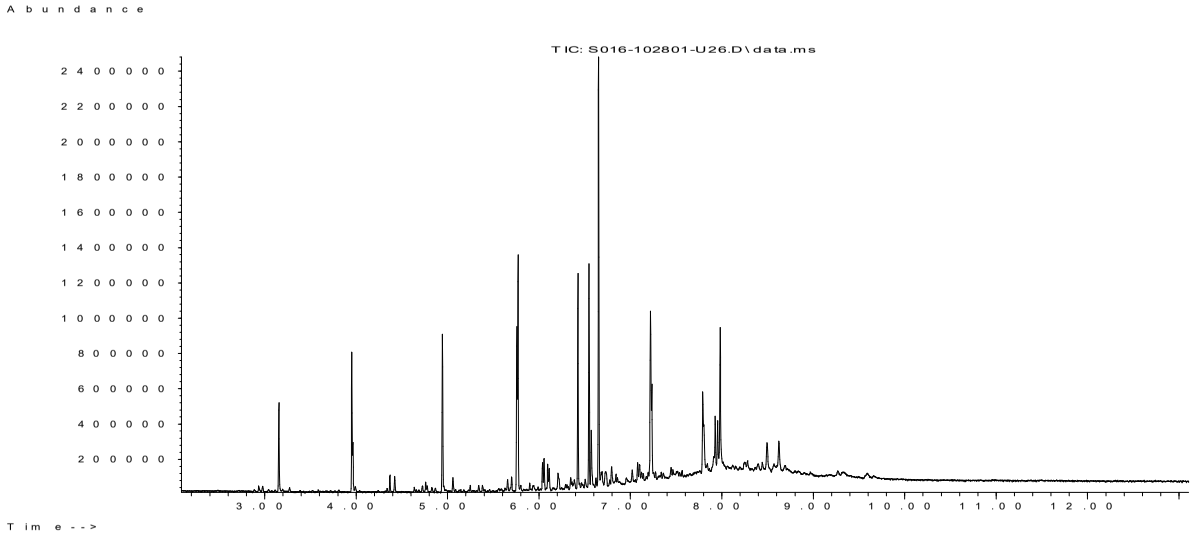
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10.00
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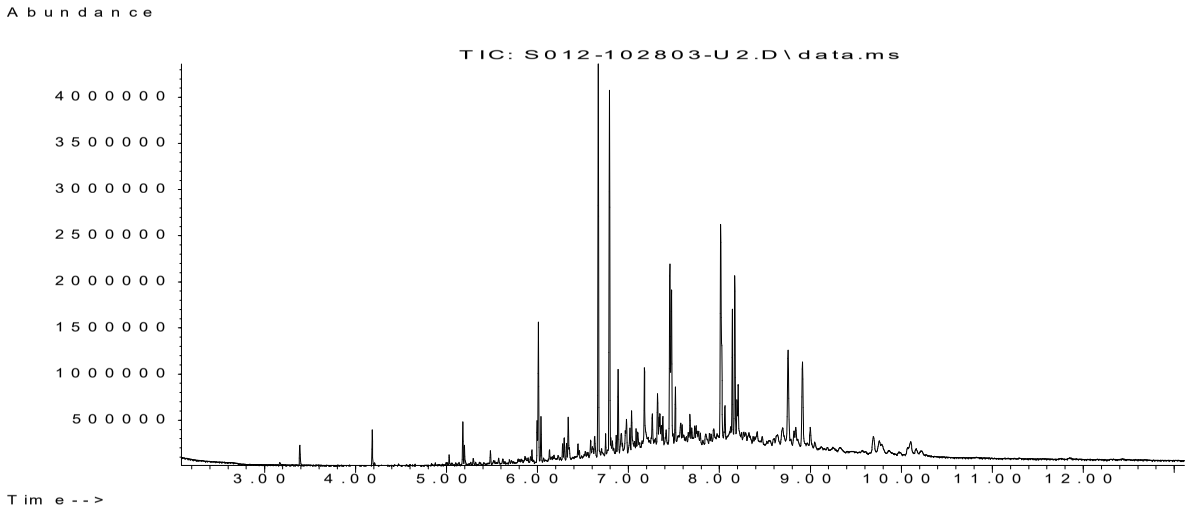
12.00
Time -->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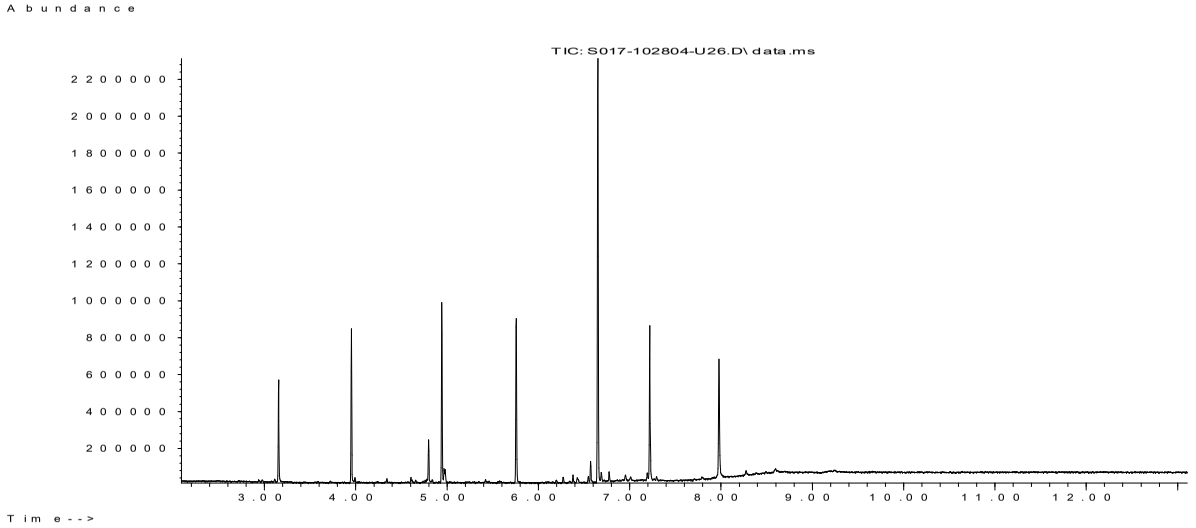
11.00
12.00
Time -->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400000
200000
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
Time-->

Job Ref: 23/12780/GO
Contract: Horsham Road, Five Oaks

SUMMARY TABLE OF EXCEEDANCES

Sample Reference			1	2	4	6	6	GAC
Depth (m)			0.10	0.30	0.10	0.10	0.50	
Date Sampled			11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024	(2.5% SOM)
Asbestos in Soil Detected/Not Detected	Type	N/A	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	
Total Organic Carbon (TOC) - Automated	%	0.1	3.8	0.9	4.2	4.6	0.6	
Naphthalene	mg/kg	0.05	0.21	0.05	2	0.64	< 0.05	5.6
Benzo(a)pyrene	mg/kg	0.05	2.4	0.75	2.1	94	0.06	2.7
Beryllium	mg/kg	0.06	0.8	1.2	0.76	0.65	1.8	1.7
TPHCWG - Aliphatic >C10 - C12	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	118
TPHCWG - Aliphatic >C12 - C16	mg/kg	2	< 2.0	< 2.0	< 2.0	13	< 2.0	2400
TPHCWG - Aliphatic >C16 - C21	mg/kg	8	< 8.0	< 8.0	< 8.0	25	< 8.0	-
TPHCWG - Aliphatic >C21 - C35	mg/kg	8	< 8.0	< 8.0	36	140	< 8.0	92000
TPHCWG - Aliphatic >C35 - C44	mg/kg	8.4	< 8.4	< 8.4	8.4	160	< 8.4	92000
TPHCWG - Aromatic >EC10 - EC12	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	180
TPHCWG - Aromatic >EC12 - EC16	mg/kg	2	< 2.0	< 2.0	< 2.0	23	< 2.0	330
TPHCWG - Aromatic >EC16 - EC21	mg/kg	10	11	< 10	< 10	300	< 10	540
TPHCWG - Aromatic >EC21 - EC35	mg/kg	10	28	< 10	21	820	< 10	1500
TPHCWG - Aromatic >EC35 - EC44	mg/kg	8.4	< 8.4	< 8.4	< 8.4	270	< 8.4	1500
TPH Total >C6 - C40	mg/kg	10	40	< 10	74	1600	< 10	-

APPENDIX 3

WASTE

WASTE CLASSIFICATION

The European Waste Framework Directive is implemented in the UK by the 2002 Landfill Regulations, together with a number of other acts and regulations. A key part of this process is to establish the hazardous properties of potential waste. The classification and definition of hazardous waste is interpreted within the Environment Agency guidance WM3 and all wastes require classifying in accordance with the European Waste Catalogue [EWC]. The EWC is a detailed list of typical industry waste types and each has a 6 digit code. Typically the appropriate EWC codes for excavated soil being disposed off site 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

If excavated soils are to be discarded or exported from site then they would be considered controlled waste and require classification. However, if soils can be re-used on site then they are not considered to be controlled waste. A Desk Study, soil descriptions, laboratory chemical analysis and risk assessment can all contribute to basic waste characterisation. Depending upon the chemical composition or levels of contaminants in the waste (e.g. metals, TPH, asbestos), soil and stones can either be hazardous or non-hazardous. Waste Acceptance Criteria [WAC] test results are used to determine the suitability of the waste intended for disposal against the acceptance criteria for a particular class of landfill site. WAC tests are not used for the classification of waste soils and are only required for inert or hazardous excavated material which is destined for landfill.

Wastes containing asbestos with a concentration of >0.10% weight/weight (w/w) are generally considered to be hazardous. While waste with <0.10% w/w of asbestos are considered non-hazardous. Where free fibres or fibrous asbestos is present at concentrations of >0.001% then these are considered to pose a risk to human health and are deemed hazardous waste. These waste materials also require a suitably licensed company to handle them.

Waste Treatment

It is a requirement of the 2002 Landfill Regulations that all wastes must undergo some form of pre-treatment prior to disposal at an appropriately licensed landfill. Treatment is defined using a 'three-point test' and can include physical, chemical, biological or thermal processes, which must change the characteristics of the waste in order to:

- reduce its volume, or
- reduce its hazardous nature, or
- facilitate its handling, or
- enhance its recovery.

The exceptions to this are:

- inert waste for which treatment is not technically feasible.
- it is waste other than inert waste and treatment would not reduce its quantity or its hazards to human health or the environment.

The waste producer should either treat their own waste or ensure that the waste will be treated by a subsequent handler. The waste producer should record the type and amount of pre-treatment undertaken prior to disposal.

Examples of treatment include mechanical segregation or sorting, compositing, soil treatment hubs and incineration. This can include physical sorting of waste soil types into separate stockpiles at the producer site, e.g. topsoil, made ground and natural clay, sand or gravels.

Waste Classification Report

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

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

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

NI8QE-RUHWH-0DL0Z

Job name

24-000289_HWOL

Description/Comments

Project

23/12780/GO

Site

Horsham Road, Five Oaks

Classified by

Name:
George Owens
Date:
31 Jan 2024 10:54 GMT
Telephone:
01428 684 836

Company:
Albury SI Ltd
Miltons Yard, Petworth Rd, Witley
Godalming
GU8 5LH

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

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Purpose of classification

2 - Material Characterisation

Address of the waste

Grainingfold, Horsham Road, Five Oaks **Post Code** RH14 9AT

SIC for the process giving rise to the waste

41202 Construction of domestic buildings

Description of industry/producer giving rise to the waste

Redevelopment of Dutch barn

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

waste created during excavation of foundation arisings and unsuitable garden soils

Description of the waste

made ground and Weald Clay

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	1--11012024-0.10		Non Hazardous		3
2	2--11012024-0.30		Non Hazardous		5
3	4--11012024-0.10		Non Hazardous		7
4	6--11012024-0.10		Non Hazardous		9
5	6--11012024-0.50		Non Hazardous		11

Related documents

#	Name	Description
1	24-000289_HWOL.hwol	i2 Analytical .hwol file used to populate the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: George Owens

Created date: 31 Jan 2024 10:54 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	13
Appendix B: Rationale for selection of metal species	14
Appendix C: Version	15

Classification of sample: 1--11012024-0.10

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

Sample details

Sample name:
1--11012024-0.10
Moisture content:
24%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 24% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14	mg/kg	1.32	14.048	mg/kg	0.0014 %	✓	
2		beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.8	mg/kg	2.775	1.687	mg/kg	0.000169 %	✓	
3		boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		2.2	mg/kg	3.22	5.384	mg/kg	0.000538 %	✓	
4		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
5		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		24	mg/kg	1.462	35.077	mg/kg	0.00351 %		
6		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.2	mg/kg	2.27	<2.724	mg/kg	<0.000272 %		<**LOD**
7		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		18	mg/kg	1.126	15.402	mg/kg	0.00154 %	✓	
8		lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	38	mg/kg	1.56	45.047	mg/kg	0.00289 %	✓	
9		manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		1700	mg/kg	2.749	3551.144	mg/kg	0.355 %	✓	
10		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**
11		nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		13	mg/kg	2.976	29.405	mg/kg	0.00294 %	✓	
12		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
13		zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		140	mg/kg	2.774	295.169	mg/kg	0.0295 %	✓	
14		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
15		pH			PH		7.8	pH		7.8	pH	7.8 pH		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		naphthalene				0.21	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-052-00-2	202-049-5	91-20-3									
17		acenaphthylene				0.06	mg/kg		0.0456	mg/kg	0.00000456 %	✓	
			205-917-1	208-96-8									
18		acenaphthene				0.13	mg/kg		0.0988	mg/kg	0.00000988 %	✓	
			201-469-6	83-32-9									
19		fluorene				0.09	mg/kg		0.0684	mg/kg	0.00000684 %	✓	
			201-695-5	86-73-7									
20		phenanthrene				2.4	mg/kg		1.824	mg/kg	0.000182 %	✓	
			201-581-5	85-01-8									
21		anthracene				0.52	mg/kg		0.395	mg/kg	0.0000395 %	✓	
			204-371-1	120-12-7									
22		fluoranthene				7.6	mg/kg		5.776	mg/kg	0.000578 %	✓	
			205-912-4	206-44-0									
23		pyrene				7.7	mg/kg		5.852	mg/kg	0.000585 %	✓	
			204-927-3	129-00-0									
24		benzo[a]anthracene				3.1	mg/kg		2.356	mg/kg	0.000236 %	✓	
		601-033-00-9	200-280-6	56-55-3									
25		chrysene				3.1	mg/kg		2.356	mg/kg	0.000236 %	✓	
		601-048-00-0	205-923-4	218-01-9									
26		benzo[b]fluoranthene				3	mg/kg		2.28	mg/kg	0.000228 %	✓	
		601-034-00-4	205-911-9	205-99-2									
27		benzo[k]fluoranthene				1.1	mg/kg		0.836	mg/kg	0.0000836 %	✓	
		601-036-00-5	205-916-6	207-08-9									
28		benzo[a]pyrene; benzo[def]chrysene				2.4	mg/kg		1.824	mg/kg	0.000182 %	✓	
		601-032-00-3	200-028-5	50-32-8									
29		indeno[123-cd]pyrene				1.2	mg/kg		0.912	mg/kg	0.0000912 %	✓	
			205-893-2	193-39-5									
30		dibenz[a,h]anthracene				0.2	mg/kg		0.152	mg/kg	0.0000152 %	✓	
		601-041-00-2	200-181-8	53-70-3									
31		benzo[ghi]perylene				1.2	mg/kg		0.912	mg/kg	0.0000912 %	✓	
			205-883-8	191-24-2									
32		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
33		vanadium { divanadium pentaoxide; vanadium pentoxide }				37	mg/kg	1.785	50.199	mg/kg	0.00502 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
34		sulfur { sulfur }				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		016-094-00-1	231-722-6	7704-34-9									
										Total:	0.407 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 2--11012024-0.30

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

Sample details

Sample name:
2--11012024-0.30
Moisture content:
17%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		16 mg/kg	1.32	17.534 mg/kg	0.00175 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.2 mg/kg	2.775	2.764 mg/kg	0.000276 %	✓	
3	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.7 mg/kg	3.22	4.543 mg/kg	0.000454 %	✓	
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		32 mg/kg	1.462	46.77 mg/kg	0.00468 %		
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.2 mg/kg	2.27	<2.724 mg/kg	<0.000272 %		<**LOD**
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		27 mg/kg	1.126	25.231 mg/kg	0.00252 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	35 mg/kg	1.56	45.313 mg/kg	0.00291 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		1300 mg/kg	2.749	2965.7 mg/kg	0.297 %	✓	
10	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**
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		36 mg/kg	2.976	88.931 mg/kg	0.00889 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		100 mg/kg	2.774	230.254 mg/kg	0.023 %	✓	
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
15	pH			PH		8.2 pH		8.2 pH	8.2 pH		

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16		naphthalene	601-052-00-2	202-049-5	91-20-3		0.05	mg/kg		0.0415	mg/kg	0.00000415 %	✓	
17		acenaphthylene		205-917-1	208-96-8		0.08	mg/kg		0.0664	mg/kg	0.00000664 %	✓	
18		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
19		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
20		phenanthrene		201-581-5	85-01-8		0.79	mg/kg		0.656	mg/kg	0.0000656 %	✓	
21		anthracene		204-371-1	120-12-7		0.15	mg/kg		0.125	mg/kg	0.0000124 %	✓	
22		fluoranthene		205-912-4	206-44-0		1.9	mg/kg		1.577	mg/kg	0.000158 %	✓	
23		pyrene		204-927-3	129-00-0		1.6	mg/kg		1.328	mg/kg	0.000133 %	✓	
24		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.87	mg/kg		0.722	mg/kg	0.0000722 %	✓	
25		chrysene	601-048-00-0	205-923-4	218-01-9		1	mg/kg		0.83	mg/kg	0.000083 %	✓	
26		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1	mg/kg		0.83	mg/kg	0.000083 %	✓	
27		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.38	mg/kg		0.315	mg/kg	0.0000315 %	✓	
28		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.75	mg/kg		0.623	mg/kg	0.0000623 %	✓	
29		indeno[123-cd]pyrene		205-893-2	193-39-5		0.46	mg/kg		0.382	mg/kg	0.0000382 %	✓	
30		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.1	mg/kg		0.083	mg/kg	0.0000083 %	✓	
31		benzo[ghi]perylene		205-883-8	191-24-2		0.56	mg/kg		0.465	mg/kg	0.0000465 %	✓	
32		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
33		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		38	mg/kg	1.785	56.305	mg/kg	0.00563 %	✓	
34		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
											Total:	0.349 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 4--11012024-0.10

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

Sample details

Sample name:
4--11012024-0.10
Moisture content:
25%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 25% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		13 mg/kg	1.32	12.873 mg/kg	0.00129 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.76 mg/kg	2.775	1.582 mg/kg	0.000158 %	✓	
3	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.8 mg/kg	3.22	4.347 mg/kg	0.000435 %	✓	
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.514 mg/kg	0.0000514 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		21 mg/kg	1.462	30.693 mg/kg	0.00307 %		
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.2 mg/kg	2.27	<2.724 mg/kg	<0.000272 %		<**LOD**
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		22 mg/kg	1.126	18.577 mg/kg	0.00186 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	36 mg/kg	1.56	42.115 mg/kg	0.0027 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		750 mg/kg	2.749	1546.067 mg/kg	0.155 %	✓	
10	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**
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		20 mg/kg	2.976	44.644 mg/kg	0.00446 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		130 mg/kg	2.774	270.479 mg/kg	0.027 %	✓	
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
15	pH			PH		7.8 pH		7.8 pH	7.8 pH		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		naphthalene				2	mg/kg		1.5	mg/kg	0.00015 %	✓	
		601-052-00-2	202-049-5	91-20-3									
17		acenaphthylene				0.11	mg/kg		0.0825	mg/kg	0.00000825 %	✓	
			205-917-1	208-96-8									
18		acenaphthene				0.19	mg/kg		0.143	mg/kg	0.0000143 %	✓	
			201-469-6	83-32-9									
19		fluorene				0.22	mg/kg		0.165	mg/kg	0.0000165 %	✓	
			201-695-5	86-73-7									
20		phenanthrene				7.7	mg/kg		5.775	mg/kg	0.000578 %	✓	
			201-581-5	85-01-8									
21		anthracene				0.24	mg/kg		0.18	mg/kg	0.000018 %	✓	
			204-371-1	120-12-7									
22		fluoranthene				6.9	mg/kg		5.175	mg/kg	0.000518 %	✓	
			205-912-4	206-44-0									
23		pyrene				6.1	mg/kg		4.575	mg/kg	0.000458 %	✓	
			204-927-3	129-00-0									
24		benzo[a]anthracene				1.3	mg/kg		0.975	mg/kg	0.0000975 %	✓	
		601-033-00-9	200-280-6	56-55-3									
25		chrysene				3.3	mg/kg		2.475	mg/kg	0.000248 %	✓	
		601-048-00-0	205-923-4	218-01-9									
26		benzo[b]fluoranthene				3.2	mg/kg		2.4	mg/kg	0.00024 %	✓	
		601-034-00-4	205-911-9	205-99-2									
27		benzo[k]fluoranthene				1.1	mg/kg		0.825	mg/kg	0.0000825 %	✓	
		601-036-00-5	205-916-6	207-08-9									
28		benzo[a]pyrene; benzo[def]chrysene				2.1	mg/kg		1.575	mg/kg	0.000158 %	✓	
		601-032-00-3	200-028-5	50-32-8									
29		indeno[123-cd]pyrene				1.2	mg/kg		0.9	mg/kg	0.00009 %	✓	
			205-893-2	193-39-5									
30		dibenz[a,h]anthracene				0.22	mg/kg		0.165	mg/kg	0.0000165 %	✓	
		601-041-00-2	200-181-8	53-70-3									
31		benzo[ghi]perylene				1.3	mg/kg		0.975	mg/kg	0.0000975 %	✓	
			205-883-8	191-24-2									
32		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
33		vanadium { divanadium pentaoxide; vanadium pentoxide }				51	mg/kg	1.785	68.283	mg/kg	0.00683 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
34		sulfur { sulfur }				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		016-094-00-1	231-722-6	7704-34-9									
										Total:	0.207 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 6--11012024-0.10

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

Sample details

Sample name:
6--11012024-0.10
Moisture content:
13%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

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

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.5 mg/kg	1.32	9.764 mg/kg	0.000976 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		0.65 mg/kg	2.775	1.569 mg/kg	0.000157 %	✓	
3	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		1.2 mg/kg	3.22	3.362 mg/kg	0.000336 %	✓	
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		0.6 mg/kg	1.142	0.596 mg/kg	0.0000596 %	✓	
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %		
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.2 mg/kg	2.27	<2.724 mg/kg	<0.000272 %		<**LOD**
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	14.693 mg/kg	0.00147 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	43 mg/kg	1.56	58.353 mg/kg	0.00374 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		420 mg/kg	2.749	1004.325 mg/kg	0.1 %	✓	
10	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**
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		12 mg/kg	2.976	31.072 mg/kg	0.00311 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		97 mg/kg	2.774	234.11 mg/kg	0.0234 %	✓	
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
15	pH			PH		8.2 pH		8.2 pH	8.2 pH		

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
16		naphthalene				0.64	mg/kg		0.557	mg/kg	0.0000557 %	✓	
		601-052-00-2	202-049-5	91-20-3									
17		acenaphthylene				2.6	mg/kg		2.262	mg/kg	0.000226 %	✓	
			205-917-1	208-96-8									
18		acenaphthene				8.9	mg/kg		7.743	mg/kg	0.000774 %	✓	
			201-469-6	83-32-9									
19		fluorene				6.5	mg/kg		5.655	mg/kg	0.000566 %	✓	
			201-695-5	86-73-7									
20		phenanthrene				70	mg/kg		60.9	mg/kg	0.00609 %	✓	
			201-581-5	85-01-8									
21		anthracene				22	mg/kg		19.14	mg/kg	0.00191 %	✓	
			204-371-1	120-12-7									
22		fluoranthene				180	mg/kg		156.6	mg/kg	0.0157 %	✓	
			205-912-4	206-44-0									
23		pyrene				170	mg/kg		147.9	mg/kg	0.0148 %	✓	
			204-927-3	129-00-0									
24		benzo[a]anthracene				95	mg/kg		82.65	mg/kg	0.00827 %	✓	
		601-033-00-9	200-280-6	56-55-3									
25		chrysene				94	mg/kg		81.78	mg/kg	0.00818 %	✓	
		601-048-00-0	205-923-4	218-01-9									
26		benzo[b]fluoranthene				120	mg/kg		104.4	mg/kg	0.0104 %	✓	
		601-034-00-4	205-911-9	205-99-2									
27		benzo[k]fluoranthene				39	mg/kg		33.93	mg/kg	0.00339 %	✓	
		601-036-00-5	205-916-6	207-08-9									
28		benzo[a]pyrene; benzo[def]chrysene				94	mg/kg		81.78	mg/kg	0.00818 %	✓	
		601-032-00-3	200-028-5	50-32-8									
29		indeno[123-cd]pyrene				51	mg/kg		44.37	mg/kg	0.00444 %	✓	
			205-893-2	193-39-5									
30		dibenz[a,h]anthracene				14	mg/kg		12.18	mg/kg	0.00122 %	✓	
		601-041-00-2	200-181-8	53-70-3									
31		benzo[ghi]perylene				56	mg/kg		48.72	mg/kg	0.00487 %	✓	
			205-883-8	191-24-2									
32		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
33		vanadium { divanadium pentaoxide; vanadium pentoxide }				24	mg/kg	1.785	37.275	mg/kg	0.00373 %	✓	
		023-001-00-8	215-239-8	1314-62-1									
34		sulfur { sulfur }				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		016-094-00-1	231-722-6	7704-34-9									
										Total:	0.23 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 6--11012024-0.50

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

Sample details

Sample name:
6--11012024-0.50
Moisture content:
21%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 21% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.5 mg/kg	1.32	9.909 mg/kg	0.000991 %	✓	
2	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9		1.8 mg/kg	2.775	3.947 mg/kg	0.000395 %	✓	
3	boron { diboron trioxide }	005-008-00-8	215-125-8	1303-86-2		0.5 mg/kg	3.22	1.272 mg/kg	0.000127 %	✓	
4	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
5	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		40 mg/kg	1.462	58.462 mg/kg	0.00585 %		
6	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.2 mg/kg	2.27	<2.724 mg/kg	<0.000272 %		<**LOD**
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	20.457 mg/kg	0.00205 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	19 mg/kg	1.56	23.413 mg/kg	0.0015 %	✓	
9	manganese { manganese sulphate }	025-003-00-4	232-089-9	7785-87-7		1400 mg/kg	2.749	3039.912 mg/kg	0.304 %	✓	
10	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**
11	nickel { nickel chromate }	028-035-00-7	238-766-5	14721-18-7		37 mg/kg	2.976	86.996 mg/kg	0.0087 %	✓	
12	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		77 mg/kg	2.774	168.751 mg/kg	0.0169 %	✓	
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
15	pH			PH		8.2 pH		8.2 pH	8.2 pH		

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
17		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
18		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
19		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
20		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
21		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
22		fluoranthene		205-912-4	206-44-0		0.13	mg/kg		0.103	mg/kg	0.0000103 %	✓	
23		pyrene		204-927-3	129-00-0		0.13	mg/kg		0.103	mg/kg	0.0000103 %	✓	
24		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.08	mg/kg		0.0632	mg/kg	0.00000632 %	✓	
25		chrysene	601-048-00-0	205-923-4	218-01-9		0.08	mg/kg		0.0632	mg/kg	0.00000632 %	✓	
26		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.09	mg/kg		0.0711	mg/kg	0.00000711 %	✓	
27		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.06	mg/kg		0.0474	mg/kg	0.00000474 %	✓	
29		indeno[123-cd]pyrene		205-893-2	193-39-5		0.05	mg/kg		0.0395	mg/kg	0.00000395 %	✓	
30		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
31		benzo[ghi]perylene		205-883-8	191-24-2		0.06	mg/kg		0.0474	mg/kg	0.00000474 %	✓	
32		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
33		vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		43	mg/kg	1.785	60.643	mg/kg	0.00606 %	✓	
34		sulfur { sulfur }	016-094-00-1	231-722-6	7704-34-9		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
											Total:	0.348 %		

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 Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

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

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **pH** (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

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

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: CLP combined data
Data source date: 26 Mar 2019
Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 <= conc. < 3 % , Eye Irrit. 2; H319 1 <= conc. < 3 % , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

beryllium {beryllium oxide}

Reasonable case CLP species based on hazard statements/molecular weight. Industrial sources include: most common (non alloy) form, used in ceramics (edit as required)

boron {diboron trioxide}

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

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

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

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

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {dicopper oxide; copper (I) oxide}

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

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

manganese {manganese sulphate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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

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

vanadium {divanadium pentaoxide; vanadium pentoxide}

worst case

sulfur {sulfur}

worst case

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2024.30.5942.10989 (30 Jan 2024)
HazWasteOnline Database: 2024.26.5938.10982 (26 Jan 2024)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021
GB MCL List v2.0 - version 2.0 of 20th October 2023