



Solutions to Your Contaminated Land Issues

PHASE II A

CONTAMINATED LAND INVESTIGATION

UNITS 7-10, CHURCH FARM, BATH ROAD, SHAW

Prepared for Andy Hillier

March 2026

Project No. 001ARDEP2

Prepared by:

Wesson Environmental Ltd
Bankspace
145-147 East Street
Bristol
BS3 4EJ



INTRUSIVE SITE INVESTIGATION

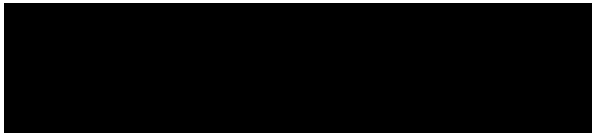
UNITS 7-10, CHURCH FARM, BATH ROAD, SHAW

FOR

ANDY HILLIER

The material and data in this report were prepared under the supervision and direction of the undersigned.

Wesson Environmental



Prepared by: Dr. Richard Wesson
Environmental Consultant

Date: 09 April 2026

CONTENTS

1	INTRODUCTION.....	4
1.1	GENERAL.....	4
1.2	The Site.....	4
2	INTRUSIVE INVESTIGATIONS.....	5
2.1	Objectives	5
2.2	GROUND CONDITIONS.....	5
2.2.1	General.....	5
2.2.2	MADE GROUND	6
2.2.3	SAND	6
2.2.4	GRAVEL.....	6
2.2.5	CLAY	6
2.3	LABORATORY ANALYSIS	6
2.3.1	Chemical Analysis:	6
3	CONTAMINATION ASSESSMENT AND RISK ASSESSMENT	7
3.1	Observations and analytical results.....	7
3.1.1	Site Observations	7
3.1.2	Results of Chemical Analysis on Soils.....	7
3.2	Risk Assessment	7
3.2.1	<i>Site Receptors and Site Use</i>	7
3.2.2	<i>Exposure Pathways and Variation in Risk</i>	8
3.2.3	<i>Comparison of Potential Contaminants to Guideline Levels</i>	9
3.2.4	Exceedances of guideline value and data distribution.....	12
3.2.5	Water Supply Pipes	15
4	Conclusions and recommendations	17
4.1	STATEMENT OF LIMITATIONS	18
5	REFERENCES.....	19

TABLES

Table 3-1: Exposure Rankings according to Pathway/ Receptor	9
Table 3-2. Summary of analysis of metals (units mg/kg).	10
Table 3-3. Summary of PAH analysis (units mg/kg).....	10
Table 3-4. Summary of TPH analysis.	12
Table 3-5: Classification of severity of risk after CIRIA 552	13
Table 3-6: Classification of likelihood of risk after CIRIA 552.....	13
Table 3-7: Comparison of consequence with likelihood of risk occurring, after CIRIA 552.	13
Table 3-8: Description of the classified risks and likely action required after CIRIA 552.	14
Table 3-9. Tabular conceptual site model.	16

APPENDICES

Appendix A	- Figures
Appendix B	- Exploratory Hole Logs
Appendix C	- Chemical Analysis Results

1 INTRODUCTION

1.1 GENERAL

Wesson Environmental Ltd were commissioned to carry out an intrusive investigation at the site located at Church farm, Shaw. A phase 1 desktop study was carried out by ourselves in February 2026. This identified a potential risk from contaminants in shallow soils due to previous site usage. This was considered likely to impact site users with no linkage to controlled waters identified. Potential risks to water pipes were considered to be contingent on the presence of short chain length hydrocarbons.

1.2 The Site

The site is located in a rural area with farmland to the south west and south east. A farm (Church Farm) borders the site to the northwest and a road to the north east. The site itself is a business park with businesses comprising light commercial usage. The site will be developed for residential use.

2 INTRUSIVE INVESTIGATIONS

Intrusive investigations were carried out the on 17th March 2026. The scope of works was to advance trial pits on the site in to investigate contaminant concentrations and distribution across the whole of the planned development area.

6 no. trial pits were using a mechanical posthole auger supplied and operated by the client. Trial pits were advanced to a maximum of 1.0m below ground level.

Features, structures, or certain ground conditions may be present between exploratory hole locations, which are different to that encountered during the investigation and which developers should take into account during construction. Locations of all exploratory holes are presented in Appendix A.

All exploratory holes were logged by a Geo-environmental Engineer in accordance with BS 5930:1999.

Sample locations are shown on figure 2.

Sample types and depths are recorded on exploratory hole records.

The exploratory logs are presented in Appendix B

2.1 Objectives

The objectives of the investigation were to:

1. Determine whether a risk to future site users and the wider environment was present as a result of previous land uses and assess whether the near surface soil is suitable for retention in soft landscaped areas.
2. If a risk is determined to be present, define what future actions are required to mitigate risks from contaminants in site soils.

2.2 GROUND CONDITIONS

2.2.1 General

The ground conditions encountered in the borehole varied by location. Generally, a thin layer of MADE GROUND was present overlying SAND, GRAVEL or CLAY.

2.2.2 *MADE GROUND*

This generally comprised a layer of natural materials such as clay and gravel which had been imported with anthropogenic materials incorporated such as concrete and masonry.

2.2.3 *SAND*

This was encountered in TP2 and TP4 and was observed to be a brown clayey gravelly material. It comprised a sandy coarse angular or sub angular material when present.

2.2.4 *GRAVEL*

This underlay clays in TP1 and was present underlying made ground in TP5.

2.2.5 *CLAY*

This was encountered in TP1, TP3 and TP6 and comprised a soft brown gravelly material with a sand element in TP3 below 0.5m. In TP1 it was initially silty and became slightly gravelly below 0.3m.

2.3 **LABORATORY ANALYSIS**

2.3.1 *Chemical Analysis:*

Laboratory testing was undertaken by i2 analytical at their UKAS and MCERTS accredited laboratory. Soil samples were analysed for:

- Heavy metals
- Polycyclic aromatic hydrocarbon (PAH) compounds
- Petroleum Hydrocarbon (TPH) compounds speciated by chain length and aliphatic/aromatic characteristics (selected samples)
- BTEX and MTBE (selected samples)
- Asbestos screen and ID
- Soil Organic Matter

3 CONTAMINATION ASSESSMENT AND RISK ASSESSMENT

3.1 Observations and analytical results

3.1.1 Site Observations

During the site investigation works carried out by Wesson Environmental, the generalised sequence was of MADE GROUND which overlay SAND, GRAVEL or CLAY.

The only contaminant observations were of anthropogenic materials such as masonry and concrete in some locations. In TP6 the made ground comprised black gravels, but no odour was present.

3.1.2 Results of Chemical Analysis on Soils

The full chemical results are given at Appendix C.

Mercury was not present above limits of detection (LOD) in any sample. Cadmium was not present above LOD in the deeper samples from TP2, TP3, TP4, TP5 and TP6. Selenium was not present above LOD in the shallow sample from TP1 and TP5 and was not present above this concentration in the deeper samples from TP3, TP5 and TP6.

Analysis of soil for PAH compounds show that in the shallow sample from TP5 that only benzo(b)fluoranthene and fluoranthene are present above LOD with the latter only present above LOD in the deeper sample. A number of PAH compounds are not present above LOD in the two samples from TP2. Acenaphthylene is not present above LOD in the majority of samples. Where PAH compounds are present above LOD, they demonstrate a decline in concentration with depth.

4 samples were submitted for analysis of TPH and were only present above LOD in the sample from TP6 at 0.1-0.2m. The speciation shows that no aliphatic species with a chain length below EC12 are present above LOD and aromatic species with a chain length below C10 are not present above LOD.

Asbestos, BTEX and MTBE were not detected in any sample.

3.2 Risk Assessment

3.2.1 Site Receptors and Site Use

For the purposes of this report the site has been classified as follows:

Residential with Homegrown Produce

The soft landscaped areas are shown as comprising turfed areas. Whilst there is a low likelihood of produce being grown, this cannot be entirely ruled out as small scale planting may occur. Analysis for soil organic matter (SOM) indicated a mean concentration of 2.4% and therefore, for those GAC that are organic matter dependent, the organic matter value of 2.5% has been used.

3.2.2 *Exposure Pathways and Variation in Risk*

Site use and duration influences risk of exposure to potentially contaminated soil originating at the site.

Table 3-1 indicates the likely probability of all site receptors of exposure to contaminated soils based on various pathways and daily activity proposed at the site.

Contaminated soil is considered here as a whole – a detailed breakdown concerning specific contaminants exceeding respective guideline levels within the soil follows in section 4.2.4.

Note that this is a table of probability of exposure to potentially contaminated soils only and does not indicate that harm will necessarily result as a direct consequence of this exposure.

Potential exposure pathways with regard to human health may include:

- Ingestion of soils
- Consumption of produce
- Dermal contact
- Inhalation of dust including material backtracked into buildings.
- Vapour inhalation

The contaminants of concern from a human health perspective were considered to be metals, PAH compounds and asbestos. Thus, pathways that have the potential to be present given the proposed land use are consumption of produce, dermal contact, ingestion of soils and dust inhalation (both outdoor and indoor in the case of backtracked soils). In the case of asbestos only the dust inhalation pathway is relevant. Vapour inhalation is not a likely scenario given the contaminants of concern. Exposure will be limited due to the proposed layout of the site.

It is considered unlikely that impacts to controlled waters will occur. The wider geological regime indicates that superficial deposits do not underlie the study site with bedrock of Oxford Clay (Mudstone) present. However, during the course of works on site gravels and sands were encountered in some locations although this was not consistent. This is suggestive of River Terrace Deposits which are shown on geological mapping approximately 129m to the east.

However, the coarse angular nature plus the inconsistency of these deposits indicates it is unlikely to be of riverine origin, especially considering the small size of the South Brook to the north east which would be the origin of the river terrace deposits. We would consider that a more likely source is slope processes from Shaw Hill to the north west leading to a range of shallow deposits being present. Because of the inconsistency of the coarser deposits, we would consider it unlikely that hydraulic continuity is present between site soils and the secondary A Aquifer in the recoded superficial deposits. Soils are likely to be low permeability based on geological mapping records and strata encountered underlying the made ground. The majority of the contaminants considered are likely to demonstrate a low aqueous solubility although if shorter chain length TPH compounds are present in sufficient quantity these may be more mobile.

Where relevant, specific exposure routes are included:

PATHWAY	RECEPTORS		
	Human Health Risk	Risk to Controlled Waters	
Soils affected by Contamination	Site users	Surface waters	Ground water
Outdoor activities	Consumption of produce: LL Dermal: L Dust Inhalation: L Ingestion: L Vapour inhalation: U	Leaching: U Direct Migration: U	Leaching: LL Direct Migration: LL
Time spent indoors	Dermal: L Dust Inhalation: L Ingestion: L Vapour inhalation: U		

Table 3-1: Exposure Rankings according to Pathway/ Receptor

KEY: (in accordance with Table 5.5) U: Unlikely LL: Low Likelihood L: Likely HL: Highly Likely

3.2.3 Comparison of Potential Contaminants to Guideline Levels

For determinands that were present above LOD the following generic assessment criteria (GAC) were used.

- For heavy metals (except lead and barium) PAH and TPH compounds, LQM/CIEH S4UL¹ values were used. Like the CLEA values these are based on HCVs to describe minimal risk.
- For lead, there is no published CLEA SGV and no LQM/CIEH S4UL value is available. Therefore, the C4SL value was used. This considered conservative especially compared to urban normal background concentrations.
- For barium the values from the CL:AIRE 2010 publication² have been used.

Analysis of heavy metals that all determinands are present below the relevant GAC (

Determinand	LOD	Min	Max	Mean	GAC
Arsenic	1	6.3	14	11.59	40
Barium	1	51	860	187.58	1300
Beryllium	0.06	0.27	1	0.60	1.7
Boron	0.2	0.4	1.6	1.10	11000
Cadmium	0.2	<LOD	0.8	0.23	85
Chromium	1	8.8	32	17.84	910
Copper	1	8.8	30	14.63	7100
Lead	1	11	99	36.25	330
Mercury	0.3	<LOD	<LOD	0.00	56
Nickel	1	8.4	28	15.58	180
Selenium	1	<LOD	1.6	0.82	430
Vanadium	1	14	49	29.50	1200
Zinc	1	41	400	135.08	40000

Table 3-2).

Determinand	LOD	Min	Max	Mean	GAC
Arsenic	1	6.3	14	11.59	40
Barium	1	51	860	187.58	1300
Beryllium	0.06	0.27	1	0.60	1.7
Boron	0.2	0.4	1.6	1.10	11000
Cadmium	0.2	<LOD	0.8	0.23	85
Chromium	1	8.8	32	17.84	910
Copper	1	8.8	30	14.63	7100
Lead	1	11	99	36.25	330
Mercury	0.3	<LOD	<LOD	0.00	56
Nickel	1	8.4	28	15.58	180
Selenium	1	<LOD	1.6	0.82	430
Vanadium	1	14	49	29.50	1200
Zinc	1	41	400	135.08	40000

Table 3-2. Summary of analysis of metals (units mg/kg).

PAH compounds exceed GAC in samples from TP4 and TP6Table 3-3).

Determinand	LOD	Min	Max	Mean	GAC	Location of exceedance
Acenaphthene	0.05	0	1.6	0.26	510	
Acenaphthylene	0.05	0	2.6	0.28	420	
Anthracene	0.05	0	7.3	1.01	5400	
Benzo(a)anthracene	0.05	0	32	3.98	11	
Benzo(a)pyrene	0.05	0	35	4.22	2.7	TP4 0.1-0.2m, TP6 0.1-0.2m
Benzo(b)fluoranthene	0.05	0	40	5.00	3.3	TP4 0.1-0.2m, TP40.4-0.5m, TP6 0.1-0.2m
Benzo(ghi)perylene	0.05	0	19	2.30	340	

Benzo(k)fluoranthene	0.05	0	15	1.88	93	
Chrysene	0.05	0	26	3.30	22	
Dibenz(a,h)anthracene	0.05	0	3.7	0.46	0.28	TP4 0.1-0.2m, TP40.4-0.5m, TP6 0.1-0.2m
Fluoranthene	0.05	0.05	59	7.48	560	
Fluorene	0.05	0	2.7	0.42	400	
Indeno(1,2,3-cd)pyrene	0.05	0	17	2.10	36	
Naphthalene	0.05	0	1.5	0.20	5.6	
Phenanthrene	0.05	0	23	3.63	220	
Pyrene	0.05	0	49	6.10	1200	
Coal Tar (BaP as a surrogate marker)	0.05	0	35	4.220833	0.98	TP3 0.1-0.2m, TP4 0.1-0.2m, TP40.4-0.5m, TP6 0.1-0.2m, TP6 0.4-0.5m

Table 3-3. Summary of PAH analysis (units mg/kg).

PHE (2017)⁷ recommend the use of benzo (a) pyrene as a surrogate marker in the assessment of carcinogenic risks posed by PAH in soils and these should be based on toxicological benchmarks derived from data for 2 coal tar mixtures by Culp et al (1998)⁶. This can help to simplify the risk assessment of PAH compounds as mixtures as opposed to assessing single compounds, with the group of contaminants normally representing a mixture. However, PHE caution that this approach is only applicable if the mixture of genotoxic PAH compounds is sufficiently similar to the toxicological benchmarks proposed by Culp et al. The following chart demonstrates the PAH profile encountered and shows that it is within 2.5x the mean that proposed by Culp et al and is therefore within the PHE limit so is suitable for this approach.

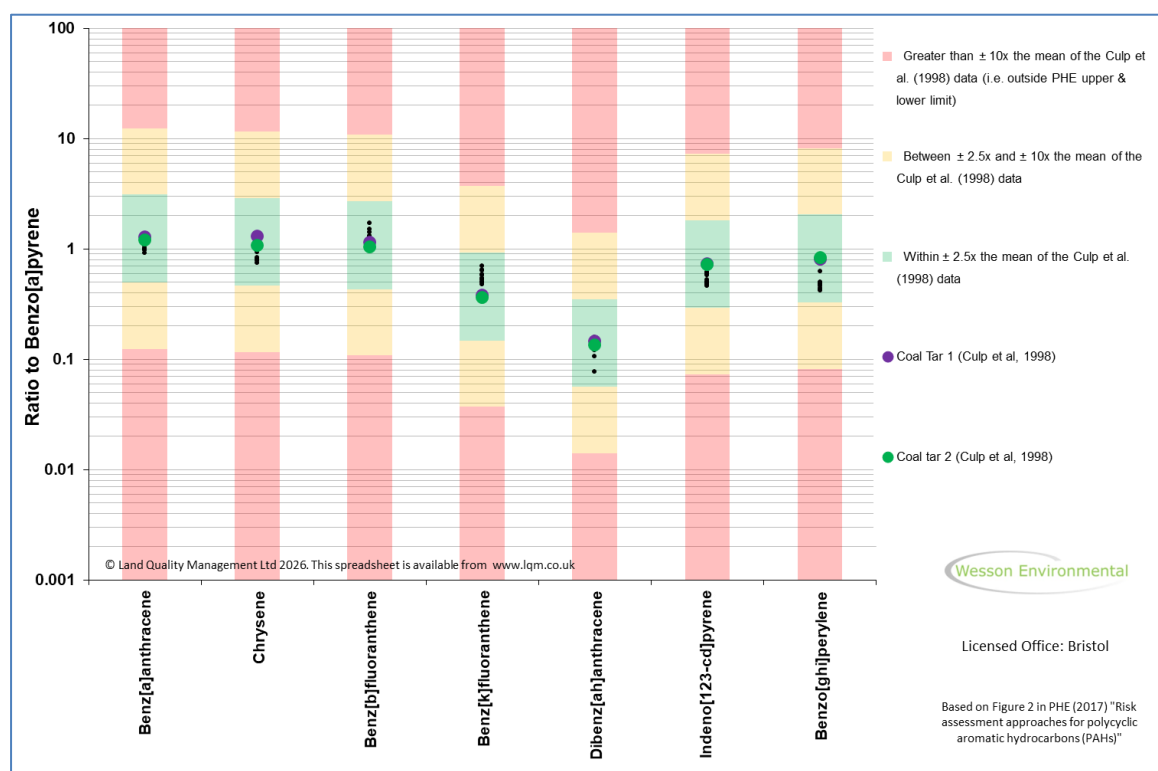


Chart 3-1. Genotoxic PAH compounds compared to coal tar mixtures.

Using this approach, it can be seen that exceedances are present in the shallow sample from TP3, both samples from TP4 and both samples from TP6.

Whilst the longer chain length TPH compounds were present above LOD in the shallow sample from TP6 none exceeded GAC (Table 3-4).

Determinand	LOD	Min	Max	GAC
Aliphatic >EC5 - EC6	0.01	0	0	78
Aliphatic >EC6 - EC8	0.01	0	0	230
Aliphatic >EC8 - EC10	0.01	0	0	65
Aliphatic >EC10 - EC12	1	0	0	330
Aliphatic >EC12 - EC16	2	0	8.5	2400
Aliphatic >EC16 - EC21	8	0	25	92000
Aliphatic >EC21 - EC35	8	0	270	92000
Aliphatic >EC5 - EC35	10	0	300	

Aromatic >EC5 - EC7	0.01	0	0	140
Aromatic >EC7 - EC8	0.01	0	0	290
Aromatic >EC8 - EC10	0.02	0	0	83
Aromatic >EC10 - EC12	1	0	1.6	180
Aromatic >EC12 - EC16	2	0	20	330
Aromatic >EC16 - EC21	10	0	210	540
Aromatic >EC21 - EC35	10	0	1000	1500
Aromatic >EC5 - EC35	10	0	1200	

Table 3-4. Summary of TPH analysis.

3.2.4 Exceedances of guideline value and data distribution.

Under UK risk assessment guidelines, the risk to human health from contaminants such as heavy metals (i.e., those that do not form a vapour phase) considers the shallow soils i.e., the top 0.6m where there is the potential for direct contact, dust generation and plant uptake.

The laboratory data indicates that a number of metals and PAH compounds exceed GAC in samples where soft landscaping is proposed to be. No asbestos was encountered in site soils.

The risks from pollutant linkages should be evaluated to enable a determination of whether the risks are acceptable. This requires classification of:

The magnitude of the severity of the risk occurring (Table 3-5)

The magnitude of the likelihood of the risk occurring (Table 3-6)

Classification	Definition
Severe	Short term risk to human health which is likely to result in 'significant harm' as defined by the Environmental Protection Act 1990, Part IIA. Short term risk of pollution of sensitive water resources. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such an organism
Medium	Chronic damage to Human Health. Pollution of sensitive water resources. A significant change in a particular ecosystem, or organism forming part of such ecosystem.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment

Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent effects to human health which may easily be prevented by measures such as personal protective clothing, etc. Easily repairable effects of damage to buildings, structures and services
-------	--

Table 3-5: Classification of severity of risk after CIRIA 552

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

Table 3-6: Classification of likelihood of risk after CIRIA 552

To evaluate the risk that each pollutant linkage present on the site poses to a specified receptor, the classifications from each table are compared. It is important that this is only applied where the possibility of an existing pollutant linkage exists. This enables a risk category to be produced that range from 'very high risk' to 'very low risk' (Table 3-7.)

		Consequence			
		Severe	Medium	Mild	Minor
Likelihood	High Likelihood	Very High Risk	High Risk	Moderate risk	Moderate/low risk
	Likely	High Risk	Moderate Risk	Moderate/ low risk	Low risk
	Low likelihood	Moderate risk	Moderate/ low risk	Low risk	Very low risk
	Unlikely	Moderate/ low risk	Low risk	Very low risk	Very low risk

Table 3-7: Comparison of consequence with likelihood of risk occurring, after CIRIA 552.

The classification gives a guide to the severity and consequence of risks that have been identified at the site. It is not possible to classify a risk that has been identified as presenting 'no risk'. 'Very low risk' is the lowest risk ranking classification. Whether action is required depends on how acceptable the stakeholder views that risk as being. Table 3-8 shows the action required for specific risk classifications.

Risk classification	Action
---------------------	--------

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

Table 3-8: Description of the classified risks and likely action required after CIRIA 552.

As discussed in the previous section using the benzo (a) pyrene (BaP) as a surrogate marker approach indicates exceedances of GAC 3 locations. The data appears to be heavily skewed with concentrations where above limits of detection varying in concentration from 0.19mg/kg to 35mg/kg. Consequently, we would not consider the data suitable for statistical analysis to determine upper confidence limits. It is also clear that concentration declines with depth and this is especially apparent where GAC is exceeded. Where the concentration is below GAC it is substantially below this figure. This, along with a visual assessment of the exceedances suggests that it represents two distinct hotspots:

1. The area to the west of units 7-10 (TP3, TP4)
2. The area to the south east of units 7-10 (TP6).

In the case of the latter, the shallower sampler showed a very large exceedance of GAC with a measured concentration of 35mg/kg which was the highest concentration recorded on the site. This was encountered in made ground that was observed to be black in colour although there was no odour. This sample was also analysed for TPH compounds and this indicated that this was dominated by long chain length species with aromatic compounds representing the largest proportion. This indicates that the PAH compounds are likely to have resulted from the presence of degraded hydrocarbons possibly from leakage of lubricating oils from vehicles which were parked in the area where TP6 was located. The source of elected PAH in TP3 and TP4 is less obvious and may originate from a variety of sources.

It is also evident that concentration declines with depth and this is especially apparent where GAC is exceeded. In the case of TP6, concentration of BaP declined from 35mg/kg at 0.1-0.2m to 1 mg/kg at 0.4-0.5m bgl, which is marginally above GAC.

With regard to controlled waters, metals and PAH compounds demonstrate a low aqueous mobility and the site is shown to be underlain by unproductive strata. As discussed previously, whilst some sand and gravels were encountered this is not thought to be part of the river terrace deposits to the east that are classified as a Secondary A Aquifer. Whilst elevated TPH compounds were present in TP6, this appear to be associated with the shallow made ground. Although no sample of the deeper natural soils was submitted for analysis of TPH, the very substantial decline in PAH concentration suggests that a commensurate TPH concentration reduction could be expected in this location. The TPH species present are largely comprised of longer chain length hydrocarbon compounds, with short chain length species making a minor contribution. There is no indication of widespread contamination from this group of contaminants with no species present above LOD in any other location. We would therefore consider impacts to controlled waters to be unlikely to occur.

3.2.5 Water Supply Pipes

Whilst elevated TPH compounds were present in TP6, this is unlikely to be a location where water pipes are routed.

Source	Contaminant	Pathway	Receptor	Severity	Likelihood	Consequence/ likelihood	Justification
Elevated Concentrations in hotspots	PAH	Ingestion of soils	Site Users	Medium	Low likelihood	Moderate/Low Risk	Present in hotspots reducing potential exposure frequency. Consumption of produce less likely but cannot be ruled out.
		Consumption of home grown produce		Medium	Low likelihood	Moderate/Low Risk	
		Dermal contact		Medium	Low likelihood	Moderate/Low Risk	
		Dust inhalation - indoor		Medium	Low likelihood	Moderate/Low Risk	
		Dust Inhalation - outdoor		Medium	Low likelihood	Moderate/Low Risk	
Elevated TPH	TPH	Leaching and lateral migration	Groundwater and surface water	Minor	Unlikely	Very Low Risk	Elevated in a single location with no evidence of widespread contamination. Long chain length low mobility species dominate.
	TPH	Penetration of MDPE pipes	Water Supply	Minor	Unlikely	Very Low Risk	Whilst TPH is elevated present as hotspot in area unlikely to be water supply route.

Table 3-9. Tabular conceptual site model.

4 Conclusions and recommendations

The data indicates the presence of a pollution linkage comprising two separate hotspots in areas where soft landscaping is planned. Remediation should involve the removal of shallow soils to a minimum depth of 600mm in areas where hotspots are present and replaced with clean materials. This will typically comprise a mixture of subsoil and topsoil and both should be suitable for the intended use. We would also recommend that the base of this is compacted with a hard dig layer and geotextile put in place. The sides should also employ a geotextile membrane to prevent the mixing of clean materials with contaminated soils. The remediation should be carried out post construction as if carried out earlier there is the likelihood of clean materials becoming contaminated due to movement of materials on site and they will also potentially become compacted making them unsuitable for use. A remediation method statement will be issued separately.

4.1 STATEMENT OF LIMITATIONS

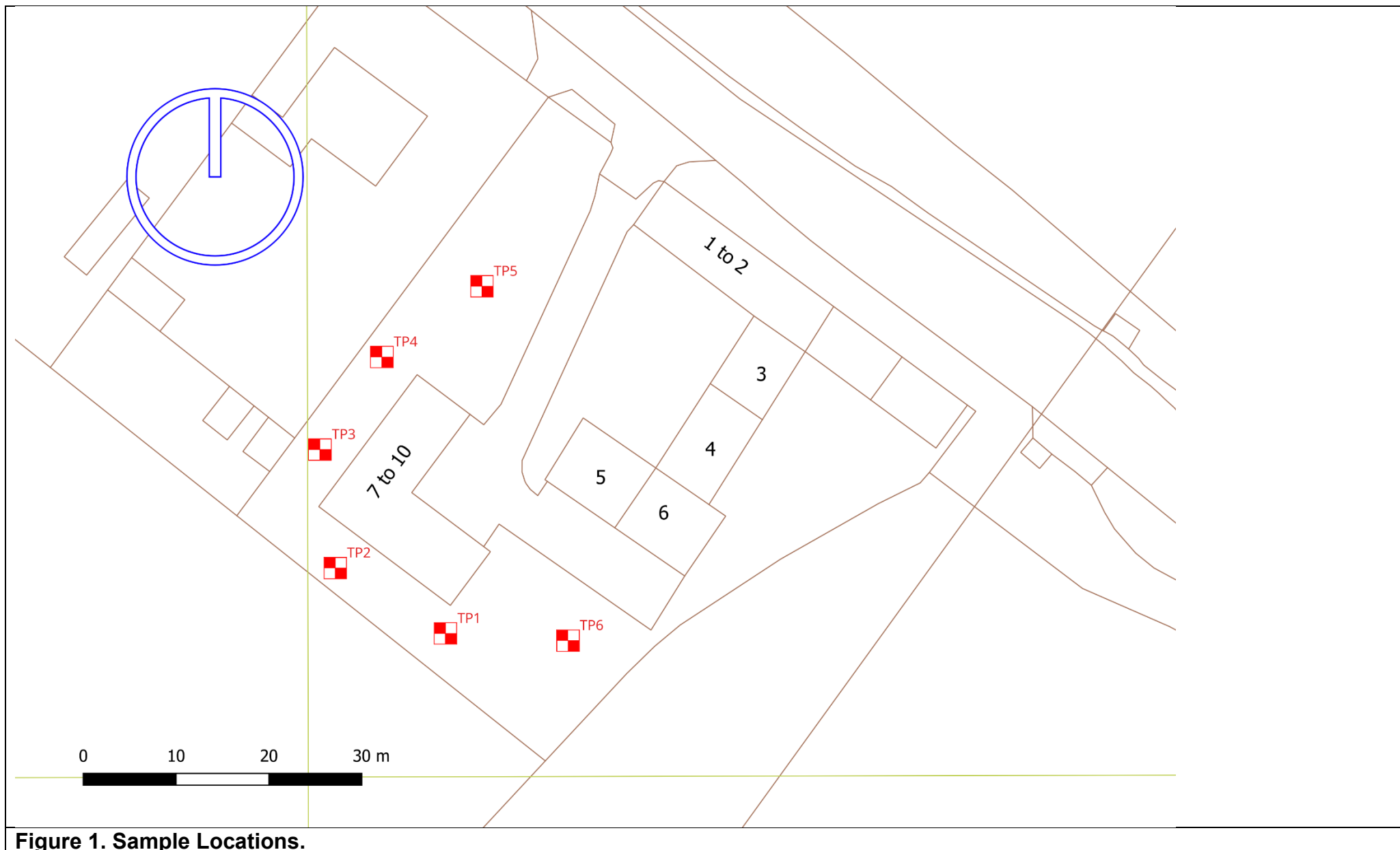
This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project, without an independent check being carried out as to its suitability, and prior written authority of Wesson Environmental being obtained. This document can be relied upon by Andy Hillier and any subsidiaries. Wesson Environmental accepts no responsibility or liability for the consequences of this document being used for any purpose other than the purpose for which it was commissioned. Any person using or relying on the document for such other purpose, agrees, and will by such use or reliance, be taken to confirm his acceptance, to indemnify Wesson Environmental for all loss or damage resulting therefrom. Wesson Environmental accepts no responsibility or liability for this document to any other party.

5 REFERENCES

1. The LQM/CIEH S4ULs for Human Health Risk Assessment. 2015. Land Quality Press.
2. CL: AIRE. Soil generic Assessment Criteria for Human Health Risk Assessment. 2010.
3. Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (2012) DEFRA
4. Ander, E L, Cave, M R, Johnson, C C, and Palumbo-Roe, B. 2011. Normal background concentrations of contaminants in the soils of England. Available data and data exploration. *British Geological Survey Commissioned Report*, CR/11/145. 124pp.
5. Guidance on Comparing Soil Contamination Data with a Critical Concentration. 2008. The Chartered Institute of Environmental Health, CL: AIRE.
6. Culp S, Gaylor D, Sheldon W, Goldstein L, & Beland F. (1998). A comparison of the tumours induced by coal tar and benzo[a]pyrene in a 2-year bioassay. *Carcinogenesis*, 19(1), 117–124.
7. PHE. (2017). Contaminated land information sheet: risk assessment approaches for polycyclic aromatic hydrocarbons (PAHs) (London, UK).

Appendix A

Figures



Appendix B

Exploratory Hole Logs

Appendix B

Exploratory Hole Logs



Trial Pit

TP1
Sheet 1 of 1

Hole Type TP	Easting 388915.00	Northing 165515.00	Ground Level (m)	Scale 1:15
Project Name Units 7-10	Project No. 001ANHIP2		Start Date 2026-03-17	End Date 2026-03-17

Client Andy Hiller	Consultant Richard Wesson	Contractor Jackson Drilling
-----------------------	------------------------------	--------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.30	D			(0.10) 0.10		MADE GROUND. Gravel and brown clay.	
						(0.20) 0.30		Soft brown friable silty CLAY with rootlets.	
		0.40-0.50	D			(0.30) 0.60		Soft brown slightly gravelly CLAY. Gravel medium subangular.	0.5
						(0.20) 0.80		Brown, coarse angular sandy GRAVEL.	
								End of Trial Pit at 0.80m	
									1.0
									1.5
									2.0
									2.5
									3.0

Remarks	Method, Plant, Stability, Dimensions	Logger
---------	--------------------------------------	--------



Trial Pit

TP2
Sheet 1 of 1

Hole Type TP	Easting 388903.00	Northing 165522.00	Ground Level (m)	Scale 1:15
Project Name Units 7-10	Project No. 001ANHIP2		Start Date 2026-03-17	End Date 2026-03-17

Client Andy Hiller	Consultant Richard Wesson	Contractor Jackson Drilling
-----------------------	------------------------------	--------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	D			(0.20)		MADE GROUND. Soft black clay with occasional masonry and concrete.	
		0.40-0.50	D			(0.80)		Brown clayey gravelly SAND. Gravel medium to coarse sub angular.	0.5
						1.00		End of Trial Pit at 1.00m	1.0
									1.5
									2.0
									2.5
									3.0

Remarks	Method, Plant, Stability, Dimensions	Logger
---------	--------------------------------------	--------



Trial Pit

TP3
Sheet 1 of 1

Hole Type TP	Easting 388902.00	Northing 165535.00	Ground Level (m)	Scale 1:15
Project Name Units 7-10	Project No. 001ANHIP2		Start Date 2026-03-17	End Date 2026-03-17

Client Andy Hiller	Consultant Richard Wesson	Contractor Jackson Drilling
-----------------------	------------------------------	--------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	D			(0.20)		MADE GROUND. Black clay with gravel, masonry pieces and concrete pieces.	
						0.20		Soft brown slightly gravelly CLAY. Gravel medium subangular.	
		0.40-0.50	D			(0.30)		Brown Sandy gravelly CLAY. Gravel medium to coarse subanglar.	0.5
						0.50			
						(0.40)			
						0.90			
								End of Trial Pit at 0.90m	1.0
									1.5
									2.0
									2.5
									3.0

Remarks	Method, Plant, Stability, Dimensions	Logger
---------	--------------------------------------	--------

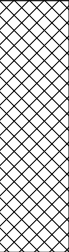
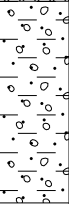


Trial Pit

TP4
Sheet 1 of 1

Hole Type TP	Easting 388908.00	Northing 165545.00	Ground Level (m)	Scale 1:15
Project Name Units 7-10	Project No. 001ANHIP2	Start Date 2026-03-17	End Date 2026-03-17	

Client Andy Hiller	Consultant Richard Wesson	Contractor Jackson Drilling
-----------------------	------------------------------	--------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	D			(0.50)		MADE GROUND. Black clay with masonry pieces and concrete pieces.	
		0.40-0.50	D			0.50 (0.40) 0.90		Slightly clayey brown gravelly SAND. Gravel medium to coarse subangular.	0.5
								End of Trial Pit at 0.90m	1.0 1.5 2.0 2.5 3.0

Remarks	Method, Plant, Stability, Dimensions	Logger
---------	--------------------------------------	--------



Trial Pit

TP5
Sheet 1 of 1

Hole Type TP	Easting 388919.00	Northing 165552.00	Ground Level (m)	Scale 1:15
Project Name Units 7-10	Project No. 001ANHIP2		Start Date 2026-03-17	End Date 2026-03-17

Client Andy Hiller	Consultant Richard Wesson	Contractor Jackson Drilling
-----------------------	------------------------------	--------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	D			(0.30)		MADE GROUND. Imported sand and gravels.	
		0.40-0.50	D			(0.40)		Fine to coarse sandy subangular GRAVEL.	0.5
						0.70		End of Trial Pit at 0.70m	
									1.0
									1.5
									2.0
									2.5
									3.0

Remarks	Method, Plant, Stability, Dimensions	Logger
---------	--------------------------------------	--------



Trial Pit

TP6
Sheet 1 of 1

Hole Type TP	Easting 388928.00	Northing 165514.00	Ground Level (m)	Scale 1:15
Project Name Units 7-10	Project No. 001ANHIP2		Start Date 2026-03-17	End Date 2026-03-17

Client Andy Hiller	Consultant Richard Wesson	Contractor Jackson Drilling
-----------------------	------------------------------	--------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	D			(0.30)		MADE GROUND. Fine to medium occasionally clayey black gravel.	
		0.40-0.50	D			(0.50)		Soft brown gravelly CLAY. Gravel medium to coarse sub angular.	0.5
						0.80		End of Trial Pit at 0.80m	1.0
									1.5
									2.0
									2.5
									3.0

Remarks	Method, Plant, Stability, Dimensions	Logger
---------	--------------------------------------	--------

Appendix C

Chemical Analysis Results

Wesson Environmental Ltd
145-147 East Street
Bristol
BS3 4EJ

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

t:

e: richard@wessonenvironmental.co.uk

Analytical Report Number : 26-014090

Project / Site name:	Melksham	Samples received on:	18/03/2026
Your job number:	001ANHIP2	Samples instructed on/ Analysis started on:	18/03/2026
Your order number:		Analysis completed by:	27/03/2026
Report Issue Number:	1	Report issued on:	27/03/2026
Samples Analysed:	12 soil samples		

Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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

Analytical Report Number: 26-014090
Project / Site name: Melksham

Lab Sample Number	863451				863452	863453	863454	863455
Sample Reference	TP1				TP1	TP2	TP2	TP3
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A				N/A	N/A	N/A	N/A
Depth (m)	0.10-0.30				0.40-0.50	0.10-0.20	0.40-0.50	0.10-0.20
Date Sampled	17/03/2026				17/03/2026	17/03/2026	17/03/2026	17/03/2026
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Mass of stone >10mm	%	0.1	NONE	6.2	< 0.1	34.4	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	16	12	14	12
Total mass of sample received	kg	0.1	NONE	0.6	0.5	0.5	0.7	0.8

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DOC	DOC	DOC	DOC	DOC
Analysis completed	N/A	N/A	N/A	27/03/2026	27/03/2026	27/03/2026	27/03/2026	27/03/2026

General Inorganics

Organic Matter (automated)	%	0.1	MCERTS	2.9	1.9	2.6	1.6	4.1
----------------------------	---	-----	--------	-----	-----	-----	-----	-----

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.12	0.3	< 0.05	< 0.05	0.11
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.09
Acenaphthene	mg/kg	0.05	MCERTS	0.27	0.35	< 0.05	< 0.05	0.28
Fluorene	mg/kg	0.05	MCERTS	0.33	0.32	< 0.05	< 0.05	0.23
Phenanthrene	mg/kg	0.05	MCERTS	1.7	1.5	0.2	0.16	2.6
Anthracene	mg/kg	0.05	MCERTS	0.44	0.4	< 0.05	< 0.05	0.67
Fluoranthene	mg/kg	0.05	MCERTS	1.7	1.4	0.42	0.3	4.7
Pyrene	mg/kg	0.05	MCERTS	1.4	1.1	0.37	0.26	4
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.68	0.55	0.27	0.2	2.6
Chrysene	mg/kg	0.05	MCERTS	0.65	0.45	0.26	0.19	2.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.79	0.58	0.41	0.27	3.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.33	0.2	0.15	0.09	1.3
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.67	0.48	0.24	0.19	2.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.39	0.22	0.12	0.09	1.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.1	< 0.05	< 0.05	< 0.05	0.2
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.43	0.24	0.14	0.09	1.5

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	9.98	8.1	2.58	1.83	27.6
-----------------------------	-------	-----	-----------	------	-----	------	------	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	13	11	11	13
Barium (aqua regia extractable)	mg/kg	1	MCERTS	59	58	88	51	250
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.5	0.8	0.56	0.63	0.63
Boron (water soluble)	mg/kg	0.2	MCERTS	1.5	1.3	1.5	1.6	1.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.2	0.4	< 0.2	0.4
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	24	17	18	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	14	20	13	30
Lead (aqua regia extractable)	mg/kg	1	MCERTS	20	17	43	20	75
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	21	16	17	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.2	1.4	1.4	1.6
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	28	39	27	30	32
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	72	68	160	64	390

Analytical Report Number: 26-014090

Project / Site name: Melksham

Lab Sample Number	863451	863452	863453	863454	863455
Sample Reference	TP1	TP1	TP2	TP2	TP3
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.10-0.30	0.40-0.50	0.10-0.20	0.40-0.50	0.10-0.20
Date Sampled	17/03/2026	17/03/2026	17/03/2026	17/03/2026	17/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	-
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	-
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	-
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	-
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-	< 10	-	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	< 0.010	-	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-	< 0.020	-	-
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	-
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	< 10	-	-
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	< 10	-	-
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-	< 10	-	-

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	-
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	-	< 8.0	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	-	< 5.0	-	-

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

Analytical Report Number: 26-014090
Project / Site name: Melksham

Lab Sample Number	863456	863457	863458	863459	863460
Sample Reference	TP3	TP4	TP4	TP5	TP5
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.40-0.50	0.10-0.20	0.40-0.50	0.10-0.20	0.40-0.50
Date Sampled	17/03/2026	17/03/2026	17/03/2026	17/03/2026	17/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1	7.1	2
Moisture Content	%	0.01	NONE	17	11	13	5.2	7.7
Total mass of sample received	kg	0.1	NONE	0.7	0.9	0.9	1.1	1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	JSW	JSW	JSW	JSW	JSW
Analysis completed	N/A	N/A	N/A	27/03/2026	27/03/2026	27/03/2026	27/03/2026	27/03/2026

General Inorganics

Organic Matter (automated)	%	0.1	MCERTS	0.9	2.6	1.3	< 0.1	0.4
----------------------------	---	-----	--------	-----	-----	-----	-------	-----

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.06	0.17	0.17	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.34	0.13	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.07	0.31	0.21	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.71	0.54	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.73	8.1	4.4	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.16	1.8	0.92	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.4	13	5.8	0.05	0.05
Pyrene	mg/kg	0.05	MCERTS	1.3	10	4.2	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.65	7.2	2.6	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.57	6.1	2.5	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.86	9	3.4	0.06	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.25	3.5	1.2	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.57	7.3	2.6	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.35	3.8	1.3	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.09	1	0.35	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.4	3.8	1.3	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	7.47	76.8	31.4	< 0.80	< 0.80
-----------------------------	-------	-----	-----------	------	------	------	--------	--------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	13	9.8	14	11
Barium (aqua regia extractable)	mg/kg	1	MCERTS	78	280	81	860	150
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1	0.53	0.43	0.27	0.32
Boron (water soluble)	mg/kg	0.2	MCERTS	1	0.9	0.9	0.4	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.8	< 0.2	0.4	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	14	11	8.8	9.3
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	20	11	8.8	9.2
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	99	38	41	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	28	12	12	8.4	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.1	1.5	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	47	25	22	14	18
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	73	400	76	120	41

Analytical Report Number: 26-014090

Project / Site name: Melksham

Lab Sample Number	863456	863457	863458	863459	863460
Sample Reference	TP3	TP4	TP4	TP5	TP5
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.40-0.50	0.10-0.20	0.40-0.50	0.10-0.20	0.40-0.50
Date Sampled	17/03/2026	17/03/2026	17/03/2026	17/03/2026	17/03/2026
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	< 2.0	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	< 10	-	-	-	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-	-	-	-
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	< 2.0	-	-	-	-
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	-	-	-
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	-	-	-	-
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	< 10	-	-	-	-

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	-	-	-	-
Benzene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-	-	-	-
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	-	-	-	-

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

Analytical Report Number: 26-014090
Project / Site name: Melksham

Lab Sample Number	863461	863462
Sample Reference	TP6	TP6
Sample Number	None Supplied	None Supplied
Water Matrix	N/A	N/A
Depth (m)	0.10-0.20	0.40-0.50
Date Sampled	17/03/2026	17/03/2026
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection
		Test Accreditation Status

Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.6	18
Total mass of sample received	kg	0.1	NONE	0.8	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	JSW	JSW
Analysis completed	N/A	N/A	N/A	27/03/2026	27/03/2026

General Inorganics

Organic Matter (automated)	%	0.1	MCERTS	7.4	1.6
----------------------------	---	-----	--------	-----	-----

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	1.5	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	2.6	0.2
Acenaphthene	mg/kg	0.05	MCERTS	1.6	0.07
Fluorene	mg/kg	0.05	MCERTS	2.7	0.17
Phenanthrene	mg/kg	0.05	MCERTS	23	1.2
Anthracene	mg/kg	0.05	MCERTS	7.3	0.4
Fluoranthene	mg/kg	0.05	MCERTS	59	1.9
Pyrene	mg/kg	0.05	MCERTS	49	1.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	32	0.98
Chrysene	mg/kg	0.05	MCERTS	26	0.78
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	40	1.3
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	15	0.49
Benzo(a)pyrene	mg/kg	0.05	MCERTS	35	1
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	17	0.6
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	3.7	0.12
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	19	0.64

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	334	11.5
-----------------------------	-------	-----	-----------	-----	------

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.3	12
Barium (aqua regia extractable)	mg/kg	1	MCERTS	220	76
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.49	1
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	1.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	32
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.6	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	36	17
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.6	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.6	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	23	49
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	82	75

Analytical Report Number: 26-014090

Project / Site name: Melksham

Lab Sample Number	863461	863462
Sample Reference	TP6	TP6
Sample Number	None Supplied	None Supplied
Water Matrix	N/A	N/A
Depth (m)	0.10-0.20	0.40-0.50
Date Sampled	17/03/2026	17/03/2026
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection
		Test Accreditation Status

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	-
TPHCWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	8.5	-
TPHCWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	25	-
TPHCWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	270	-
TPHCWG - Aliphatic >EC5 - EC35 _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	300	-

TPHCWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.01	MCERTS	< 0.010	-
TPHCWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.02	MCERTS	< 0.020	-
TPHCWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	1.6	-
TPHCWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	20	-
TPHCWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	210	-
TPHCWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	1000	-
TPHCWG - Aromatic >EC5 - EC35 _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	1200	-

VOCs

MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	-
Benzene	µg/kg	5	MCERTS	< 5.0	-
Toluene	µg/kg	5	MCERTS	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	-

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

Analytical Report Number : 26-014090

Project / Site name: Melksham

* 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 *
863451	TP1	None Supplied	0.10-0.30	Brown loam and clay with vegetation and stones
863452	TP1	None Supplied	0.40-0.50	Brown clay and sand with gravel
863453	TP2	None Supplied	0.10-0.20	Brown clay and loam with stones and gravel
863454	TP2	None Supplied	0.40-0.50	Brown clay and sand with vegetation and gravel
863455	TP3	None Supplied	0.10-0.20	Brown sandy clay with gravel
863456	TP3	None Supplied	0.40-0.50	Brown clay with gravel
863457	TP4	None Supplied	0.10-0.20	Brown clay and sand with gravel
863458	TP4	None Supplied	0.40-0.50	Brown clay and sand with gravel
863459	TP5	None Supplied	0.10-0.20	Brown clay and sand with gravel and stones
863460	TP5	None Supplied	0.40-0.50	Brown sand with gravel and stones
863461	TP6	None Supplied	0.10-0.20	Brown gravelly loam with clinker and vegetation
863462	TP6	None Supplied	0.40-0.50	Brown clay and sand with gravel and vegetation

Analytical Report Number : 26-014090

Project / Site name: Melksham

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI 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 dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (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
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	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
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
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or 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 in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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

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

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

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

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

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution