

Ref. 2240423-3 (00)

Harry Blackwell
Brookfield
Cherington
Shipston on Stour
CV36 5HS

9th June 2023

VALIDATION STATEMENT
Mawles Farm, Sibford Gower, OX15 5RW

1. In relation to the current development of the above site, it has been necessary to investigate and remediate the ground conditions to satisfy standard environmental planning conditions. The development comprises the conversion of the existing barns to create one new dwelling, demolition of the existing steel barn, erection of a replacement ancillary outbuilding and associated works under planning application reference 20/02545/F. A plan of the development is attached.
2. The site is situated to the northeast of the cross-roads of Main Street and Pound Lane, Sibford Gower, approximately 11km to the west of the town centre of Banbury and may be located by Grid Reference SP 352 378.
3. The following reports have previously been undertaken by Ian Farmer Associates (IFA) in relation to the development:
 - Preliminary Investigation Report (PIR), reference 22145, dated September 2020.
 - Ground Investigation Report (GIR), reference 2220483, dated February 2021.
 - Remediation Method Statement (RMS), reference 2240423-1 (01), dated April 2021.
 - Letter Report, reference 2240423-2 (00), dated 20th April 2022.
4. All reports should be submitted to the Local Authority in relation to the current planning application.
5. The previous contamination risk assessment identified potential risks to human receptors from arsenic identified within the shallow soils, both Made Ground and natural soil, and asbestos within the Made Ground in BH105. Possible risks to plastic water supply pipes were also identified with regard to marginally elevated TPH concentrations in BH103.
6. No significant potential risks were identified with regard to controlled waters or ground gas. However, the site was identified as being within a Radon affected area.

7. The following remediation strategy was proposed to address the identified pollutant linkages:

Step	Action
1.	<p>Within areas capped by permanent hard standing or buildings, no exposure pathway will exist between the contamination identified within the shallow soils and end users of the site on completion of the development and therefore, no further remediation is proposed in these areas. Within proposed landscaped and planted areas, gravel surfaced areas, and areas covered by semi-permanent hard standing such as stone paving, a capping layer of certified inert material will be placed to break the exposure pathways as follows:</p> <ul style="list-style-type: none"> • A minimum capping thickness of 400mm is proposed. • Due to the presence of asbestos identified in BH105, further sampling of the Made Ground and screening for asbestos is to be undertaken, as indicated in Figure A1.1, to confirm whether any further asbestos is present that would require an increased capping thickness or localised source removal to prevent fibres becoming airborne. If identified, the results of the further testing will be reported in an updated RMS detailing the additional measures proposed. If not identified, the results will be included or within a validation report and the 400mm capping thickness applied. • Where a paved or gravel surface is proposed, the surface and sub-base can be included within the capping thickness. • In proposed landscaped and planted areas, at least the top 150mm should comprise good quality topsoil. • A geotextile membrane will be placed at the base of the capping layer.
2.	<p>Certificates confirming contaminant concentrations for all imported soils will be obtained from the supplier(s) prior to importation, to ensure that it is suitable for its intended use. The soils will be visually inspected by the ground worker on receipt, and independent chemical analysis of the material will also be undertaken once it is in place. Samples will be taken of the imported soil, which will be tested in a UKAS accredited laboratory to ensure that contaminant concentrations are below the published screening criteria referenced in the ground investigation report, and free from asbestos. The suite of testing will comprise asbestos, metals, speciated PAH and speciated TPH CWG with BTEX and MTBE. The total number of samples will be confirmed once the total volume and source(s) of imported soil are confirmed.</p>
3.	<p>A watching brief will be undertaken by the developer, comprising the visual and olfactory assessment of all exposed soils during site clearance and excavations. Should any previously unidentified contamination or deleterious materials be encountered during ground works, work will stop and further ground investigation, risk assessment and updated remediation strategy will be undertaken as appropriate. Where contamination is identified or suspected, consultation will be undertaken with a suitably experienced engineer to decide the most appropriate action, which may include:</p> <ul style="list-style-type: none"> • The removal from site and disposal to a suitably licensed tip of all material suspected of being contaminated. The material would need to be classified prior to disposal. • Short-term storage of the suspected material while undertaking verification testing for potential contamination. The material would need to be stored in a contained area to ensure that contamination does not migrate and affect other areas of the site. Depending upon the amounts of material under consideration, this could be either a skip or a lined area. • Following removal of any suspected or contaminated soil, validation sampling will be undertaken around the base and sides of any excavation to ensure no contamination is present in the remaining soils. <p>A Principal Contaminated Land Specialist will be on call should any evidence of contamination be encountered, though will not carry out full time supervision during the ground works. All additional information will be submitted and approved by the Local Planning Authority prior to any further remedial works being undertaken.</p>

Step	Action
4.	<p>During ground works, appropriate health and safety measures will be implemented to mitigate the risk of any known or previously unidentified contamination affecting the site workers and the environs, particularly potential exposure to asbestos fibres identified within the Made Ground. These include:</p> <ul style="list-style-type: none"> • Informing the site workers of the contamination on the site and the potential health effects from exposure. • The provision of suitable Personal Protective Equipment (PPE), such as masks, gloves and overalls, for workers who may be potentially impacted by working in areas of the contamination. • Ensuring good hygiene is enforced and washing facilities are maintained on the site. Workers are discouraged from smoking, eating or drinking without washing their hands first. • Dust monitoring, and if necessary, suppression measures, such as wheel washing of construction vehicles and damping down of dry soil during excavations through the Made Ground, to prevent contamination becoming airborne.
5.	<p>All waste material will be disposed of to an appropriately licensed site. The chemical testing and assessments previously carried out may be used to aid classification of any soil that is to be disposed of. Any further testing required by the tip prior to disposal will be carried out using a UKAS accredited laboratory. Copies of the waste consignment documentation will be retained by the developer for inclusion in the Final Validation Report.</p>
6.	<p>The Local Water Supply Company will be consulted for confirmation of whether barrier pipe or selection of an alternative material to plastic will be required for any proposed new potable water supplies. Evidence that the required measures were implemented or that they were not required will be retained for validation purposes.</p>
7.	<p>Radon measures will be installed in accordance with BRE Report 211. Confirmation that these measures have been checked and approved by the Local Authority Building Control will be retained for validation purposes.</p>

8. Prior to importation of the capping layer, the client excavated to sufficient depth to accommodate a 400mm capping thickness following which, further sampling for asbestos screening was undertaken. The results were reported under reference 2240423-2 in April 2022 and confirmed the absence of asbestos in any of the samples tested from the reduced ground surface. Consequently, the minimum capping thickness of 400mm was confirmed as suitable for the entire site.
9. The developer confirmed that no further evidence of contamination was observed during the ground works.
10. Prior to the importation of topsoil to the site, a certificate of analysis was obtained from the topsoil supplier to confirm that the material was suitable for use and all contaminant concentrations were below the relevant screening criteria for a residential development. A copy of the certification is attached.
11. Following completion of the works, in order to validate the works undertaken, pits were excavated by hand in eight locations, designated VS1 to VS8, to prove the thickness of the capping layer and presence of the geotextile membrane. The sampling locations are indicated on the attached site plan.
12. Photographs of the sampling locations and validation pits are attached. The thickness of topsoil above the geotextile membrane was confirmed to be between 360mm and 600mm in the sampling locations. Whilst in some locations this was a slightly less than the 400mm proposed, likely due to settlement since the material was placed, the minimum capping thickness was originally calculated as 345mm, based on guidance provided by the BRE. Consequently, on the basis of the thickness of topsoil proven during the validation, presence of the geotextile membrane and the marginal exceedances of arsenic identified across the site, this is considered acceptable.
13. Samples were taken within the imported soil in each location at depths between 0.20m and 0.30m BGL in each location and submitted to a UKAS accredited laboratory for analysis of the following determinands:
 - Asbestos screen
 - Metals (arsenic, water soluble boron, cadmium, chromium, hexavalent chromium, copper, lead, mercury, nickel, selenium and zinc)
 - Polycyclic aromatic hydrocarbons (PAH USEPA 16)
 - Speciated petroleum hydrocarbons (TPH CWG) with benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE).
 - Soil organic matter (SOM)
 - pH
14. The results of the analyses are provided in the attached laboratory test reports 23/03605/1 and 23/05093/1.
15. All of the identified concentrations, with the exception of lead, were compared to the published Suitable 4 Use Levels (S4ULs) determined by LQM and CIEH. As no S4UL has been produced for lead, the Category 4 Screening Level (C4SL) was adopted. The Generic Assessment Criteria (GAC) for the end use of residential with homegrown produce and the most conservative soil organic matter (SOM) content of 1%, were adopted. A summary of the adopted GAC is attached.

16. All of the results were below the GAC and asbestos was not identified in any of the samples. Consequently, the imported soil was considered suitable for use within the gardens and planted areas.
17. Copies of the waste documentation for the soils removed from the site during the development and to allow for the placement of the capping layer are attached.
18. Validation with respect to the installation of potable supply pipes and radon protective measures is beyond the remit of this report and should be confirmed by the Local Water Authority and Building Control respectively.
19. It is considered on the basis of the validation work undertaken and detailed above, that all potential pollutant linkages have been suitably addressed for the proposed development and no long-term pollutant linkages remain that would require ongoing management.

We trust this is satisfactory for you requirements.

Yours faithfully



Victoria Tickner
Principal Environmental Engineer

Encs.

Site Plan
Site Photographs
Topsoil Certificate
Laboratory Test Report 23/03605/1
Laboratory Test Report 23/05093/1
Generic Assessment Criteria (GAC)
Waste Consignment Documents





Photograph 1: Landscaped garden in the south of the site (VS1-VS5)



Photograph 2: Landscaped garden in the south of the site (VS1-VS5)



Photograph 3: VS1



Photograph 4: VS1



Photograph 5: VS2



Photograph 6: VS2



Photograph 7: VS3



Photograph 8: VS3



Photograph 9: VS4



Photograph 10: VS4



Photograph 11: VS5



Photograph 12: VS5



Photograph 13: VS6



Photograph 14: VS6



Photograph 15: VS7



Photograph 16: VS7



Photograph 17: VS8



Photograph 18: VS8



Photograph 19: Landscaped area in the south of the site (VS6-VS8)

Material: TS7 Low PH Topsoil
Source: Bourne Amenity Ltd
Date: 26/01/2016
Tested Against: BS3882:2015 Acidic Grade
Tested By: Chemtest (16-01818/245634 and 16-01818/245634)

Parameter	Unit	BS3882:2015 Acidic Range	Result	Compliance
Texture:				
Clay (<0.002mm)	% w/w	5 - 30%	3.5	No
Silt (0.002 - 0.63mm)	% w/w	0 - 65%	4.8	Yes
Sand (0.05 - 2.0mm)	% w/w	20 - 90%	92	No
Textual Class:	Sandy Silt Loam			
Stones (2 - 20mm)	% w/w DW	0 - 30%	<0.2	Yes
Stones (20-50mm)	% w/w DW	0 - 10%	<0.2	Yes
Stones (>50mm)	% w/w DW	0%	<0.2	Yes
Organic Matter (LOI)	% w/w	3.0 - 30.0	7.4	Yes
Ph		3.5 - 5.5	6.3	No
Exchangeable Sodium Percentage	%	< 15%	3.6	Yes
Phytotoxic Contaminants:				
Total Zinc	mg/kg	< 300	5.9	Yes
Total Copper	mg/kg	< 200	<5.0	Yes
Total Nickel	mg/kg	< 110	7.5	Yes
Available Nutrients:				
Nitrogen	mg/l	>0.15	0.05	No
Phosphorus	mg/l	16 - 140	62	Yes
Potassium	mg/l	121 - 1500	280	Yes
Magnesium	mg/l	51 - 600	130	Yes
Carbon:Nitrogen Ratio	:1	< 20:1	86.6	No
Calcium Carbonate	% m/m	n/a	<0.1	n/a
Additional Analysis:				
Electrical Conductivity (1:2 CaSO4 extract)	µS/cm	3300	630	Yes
Visible Contaminants:				
Plastics (>2.0mm)	% w/w	< 0.5	0.0	Yes
Sharps (>2.0mm)	% w/w	< 0.25	0.0	Yes

Parameter	Unit	Guidelines	Value	Result	Compliance
Heavy Metals and Hydrocarbons					
Total Arsenic (As)	mg/kg	Soil Guideline Values CLEA 2009 (SGV)	<32	6.0	Yes
Total Cadmium (Cd)	mg/kg	SGV	<10	<0.10	Yes
Total Chromium (Cr)	mg/kg	SGV	<130	16	Yes
Hexavalent Chromium (Cr Vi)	mg/kg	Land Quality Management 2009 (LQM)	<4.3	<0.50	Yes
Total Cyanide (Cn)	mg/kg	Dutch Action Value (DAV)	<20	1.2	Yes
Total Lead (Pb)	mg/kg	SGV	<450	4.2	Yes
Total Mercury (Hg)	mg/kg	SGV	<170	<0.10	Yes
Total (mono) Phenols	mg/kg	SGV	<420	<0.30	Yes
Total Selenium (Se)	mg/kg	SGV	<350	<0.20	Yes
Total Vanadium (V)	mg/kg	LQM	<75	21	Yes
Water Soluble Baron (B)	mg/kg	TOHA	<5	0.58	Yes
Water Soluble Sulphate (SO4)	g/l	BRE Special Digest 1:2005 (BRE)	<1.2	0.053	Yes
Acenaphthylene	mg/kg	LQM	<400	<0.10	Yes
Acenaphthene	mg/kg	LQM	<480	<0.10	Yes
Anthracene	mg/kg	LQM	<4900	<0.10	Yes
Benzo (a) Anthracene	mg/kg	LQM	<4.7	<0.10	Yes
Benzo (a) Pyrene	mg/kg	LQM	<0.94	<0.10	Yes
Benzo (b) Fluoranthene	mg/kg	LQM	<6.5	<0.10	Yes
Benzo (g,h,i) Perylene	mg/kg	LQM	<46	<0.10	Yes
Benzo (k) Fluoranthene	mg/kg	LQM	<9.6	<0.10	Yes
Chrysene	mg/kg	LQM	<8.0	<0.10	Yes
Dibenzo (a,h) Anthracene	mg/kg	LQM	<0.86	<0.10	Yes
Fluoranthene	mg/kg	LQM	<460	<0.10	Yes
Fluorene	mg/kg	LQM	<380	<0.10	Yes
Indeno (1,2,3-cd) Pyrene	mg/kg	LQM	<3.9	<0.10	Yes
Naphthalene	mg/kg	LQM	<3.7	<0.10	Yes
Pyrene	mg/kg	LQM	<1000	<0.10	Yes
Phenanthrene	mg/kg	LQM	<200	<0.10	Yes
Total PAHs (sum SUEPA16)	mg/kg	TOHA	<40	<2.0	Yes
Aliphatic TPH (C5 – C35)	mg/kg	LQM	<1100	<5.0	Yes
Aromatic TPH (C5 – C35)	mg/kg	LQM	<1100	<5.0	Yes
Total Petroleum Hydrocarbons	mg/kg	LQM	<1100	<10	Yes
Asbestos	mg/kg	Control of Asbestos Regulations 2006	Absent	Absent	Yes

*All reports originate from samples collected in accordance with the guidelines laid out in the BS3882:2015 standard. Tests of this material are carried out a minimum of every 6 months.

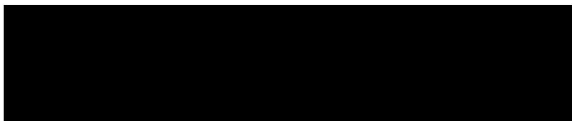
FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/03605
Issue Number: 1
Date: 28 April, 2023

Client: Ian Farmer Associates (Hemel)
18 Frogmore Road
Hemel Hempstead
Herts
UK
HP3 9RT

Project Manager: Emma Moore/Victoria Tickner
Project Name: Mawles Farm, Sibford Gower
Project Ref: 2240423
Order No: 2240423
Date Samples Received: 17/04/23
Date Instructions Received: 17/04/23
Date Analysis Completed: 28/04/23

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

Envirolab Job Number: 23/03605

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/03605/1	23/03605/2	23/03605/3	23/03605/4	23/03605/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS1	VS2	VS3	VS4	VS5					
Depth to Top	0.20	0.20	0.30	0.20	0.30					
Depth To Bottom										
Date Sampled	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE					
% Stones >10mm _A	4.3	1.2	<0.1	1.5	<0.1					
pH _D ^{M#}	8.07	8.12	8.07	8.05	7.56			pH	0.01	A-T-031s
Organic Matter _D ^{M#}	3.2	3.5	3.4	4.1	3.9			% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	6	4	5	6	4			mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	1.1	<1.0			mg/kg	1	A-T-027s
Cadmium _D ^{M#}	0.7	0.6	<0.5	<0.5	0.6			mg/kg	0.5	A-T-024s
Copper _D ^{M#}	69	22	23	25	24			mg/kg	1	A-T-024s
Chromium _D ^{M#}	20	18	15	18	15			mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1			mg/kg	1	A-T-040s
Lead _D ^{M#}	48	44	48	49	45			mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	1.23			mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	12	12	12	14	12			mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	1	<1	<1			mg/kg	1	A-T-024s
Zinc _D ^{M#}	81	91	82	85	76			mg/kg	5	A-T-024s

Envirolab Job Number: 23/03605

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/03605/1	23/03605/2	23/03605/3	23/03605/4	23/03605/5			Units	Limit of Detection	Method ref			
Client Sample No													
Client Sample ID	VS1	VS2	VS3	VS4	VS5								
Depth to Top	0.20	0.20	0.30	0.20	0.30								
Depth To Bottom													
Date Sampled	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23								
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES								
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE								
Asbestos in Soil (inc. matrix)													
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD					A-T-045			
Asbestos Matrix (visual) _D	-	-	-	-	-					A-T-045			
Asbestos Matrix (microscope) _D	-	-	-	-	-					A-T-045			
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A	N/A	N/A					A-T-045			

Envirolab Job Number: 23/03605

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/03605/1	23/03605/2	23/03605/3	23/03605/4	23/03605/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS1	VS2	VS3	VS4	VS5					
Depth to Top	0.20	0.20	0.30	0.20	0.30					
Depth To Bottom										
Date Sampled	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE					
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	0.01	<0.01	0.01			mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.02	<0.02	0.04	0.04	0.04			mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.13	0.08	0.18	0.13	0.23			mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.16	0.10	0.21	0.16	0.27			mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.19	0.13	0.24	0.18	0.30			mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.09	0.07	0.13	0.10	0.16			mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.08	<0.07	0.10	<0.07	0.14			mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.17	0.10	0.21	0.17	0.27			mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04			mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.27	0.15	0.31	0.27	0.43			mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.11	0.08	0.15	0.12	0.19			mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03			mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.09	0.05	0.10	0.11	0.11			mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.25	0.14	0.30	0.24	0.41			mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	1.56	0.90	1.98	1.52	2.56			mg/kg	0.01	A-T-019s

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Client Project Ref: 2240423

Lab Sample ID	23/03605/1	23/03605/2	23/03605/3	23/03605/4	23/03605/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS1	VS2	VS3	VS4	VS5					
Depth to Top	0.20	0.20	0.30	0.20	0.30					
Depth To Bottom										
Date Sampled	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23	13-Apr-23					
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES					
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE					
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	17	15	40	17	17			mg/kg	1	A-T-055s
Total Aliphatics _A	17	15	40	17	17			mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	<1	<1	<1	1			mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	3	3	5	4	8			mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	13	14	30	16	30			mg/kg	1	A-T-055s
Total Aromatics _A	18	17	35	19	40			mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	35	33	75	36	57			mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.

EPH CWG results have humics mathematically subtracted through instrument calculation

TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these

humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921
email. ask@envirolab.co.uk

Client: Ian Farmer Associates (Hemel), 18 Frogmore Road, Hemel Hempstead, Herts, **Project No:** 23/03605
UK, HP3 9RT **Date Received:** 17/04/2023 (am)
Project: Mawles Farm, Sibford Gower **Cool Box Temperatures (°C):** 12.1
Clients Project No: 2240423

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/05093
Issue Number: 1
Date: 08 June, 2023

Client: Ian Farmer Associates (Hemel)
18 Frogmore Road
Hemel Hempstead
Herts
UK
HP3 9RT

Project Manager: Victoria Tickner
Project Name: Mawles Farm, Sibford Gower
Project Ref: 2240423
Order No: P7536465
Date Samples Received: 25/05/23
Date Instructions Received: 25/05/23
Date Analysis Completed: 08/06/23

Approved by:



Gemma Berrisford
Client Manager

Envirolab Job Number: 23/05093

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/05093/1	23/05093/2	23/05093/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS6	VS7	VS8							
Depth to Top	0.25	0.25	0.25							
Depth To Bottom										
Date Sampled	18-May-23	18-May-23	18-May-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	4AE	4AE	4AE							
% Stones >10mm _A	<0.1	3.7	1.0							
pH _D ^{M#}	7.87	7.80	7.86					pH	0.01	A-T-031s
Organic Matter _D ^{M#}	2.5	2.2	2.0					% w/w	0.1	A-T-032s
Arsenic _D ^{M#}	9	7	5					mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0					mg/kg	1	A-T-027s
Cadmium _D ^{M#}	0.7	0.7	<0.5					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	18	26	17					mg/kg	1	A-T-024s
Chromium _D ^{M#}	14	13	13					mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1					mg/kg	1	A-T-040s
Lead _D ^{M#}	43	51	35					mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	12	12	10					mg/kg	1	A-T-024s
Selenium _D ^{M#}	1	<1	<1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	75	78	59					mg/kg	5	A-T-024s

Envirolab Job Number: 23/05093

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/05093/1	23/05093/2	23/05093/3					Units	Limit of Detection	Method ref			
Client Sample No													
Client Sample ID	VS6	VS7	VS8										
Depth to Top	0.25	0.25	0.25										
Depth To Bottom													
Date Sampled	18-May-23	18-May-23	18-May-23										
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES										
Sample Matrix Code	4AE	4AE	4AE										
Asbestos in Soil (inc. matrix)													
Asbestos in soil [#]	NAD	NAD	NAD							A-T-045			
Asbestos Matrix (visual) _D	-	-	-							A-T-045			
Asbestos Matrix (microscope) _D	-	-	-							A-T-045			
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A							A-T-045			

Envirolab Job Number: 23/05093

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/05093/1	23/05093/2	23/05093/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	VS6	VS7	VS8							
Depth to Top	0.25	0.25	0.25							
Depth To Bottom										
Date Sampled	18-May-23	18-May-23	18-May-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	4AE	4AE	4AE							
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	0.02	0.02	0.02					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.05	0.03	0.03					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.29	0.18	0.21					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.44	0.25	0.29					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.44	0.26	0.30					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.29	0.16	0.19					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.22	0.14	0.15					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.34	0.19	0.23					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	0.05	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.45	0.28	0.35					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.34	0.18	0.22					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.10	0.07	0.08					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.43	0.27	0.34					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	3.46	2.03	2.41					mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/05093

Client Project Name: Mawles Farm, Sibford Gower

Client Project Ref: 2240423

Lab Sample ID	23/05093/1	23/05093/2	23/05093/3							
Client Sample No										
Client Sample ID	VS6	VS7	VS8							
Depth to Top	0.25	0.25	0.25							
Depth To Bottom										
Date Sampled	18-May-23	18-May-23	18-May-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	4AE	4AE	4AE							
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	10	11	13					mg/kg	1	A-T-055s
Total Aliphatics _A	10	11	13					mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	1	1					mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	2	3	3					mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	15	17	17					mg/kg	1	A-T-055s
Total Aromatics _A	17	21	22					mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	28	33	35					mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s

Report Notes

General

This report shall not be reproduced, except in full, without written approval from Envirolab.
 The results reported herein relate only to the material supplied to the laboratory.
 The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **six weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
 Analytical results reflect the quality of the sample at the time of analysis only.
 Opinions and Interpretations expressed are outside our scope of accreditation.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
 Stones etc. are not removed from the sample prior to analysis
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).
 For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
 For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
 All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
 Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.
 Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921
email. ask@envirolab.co.uk

Client: Ian Farmer Associates (Hemel), 18 Frogmore Road, Hemel Hempstead, Herts, **Project No:** 23/05093
UK, HP3 9RT
Project: Mawles Farm, Sibford Gower **Date Received:** 25/05/2023 (am)
Clients Project No: 2240423 **Cool Box Temperatures (°C):** 15.4

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/05093/1	23/05093/2	23/05093/3
Client Sample No			
Client Sample ID/Depth	VS6 0.25m	VS7 0.25m	VS8 0.25m
Date Sampled	18/05/23	18/05/23	18/05/23
A-T-019s	02/06/2023	02/06/2023	02/06/2023
A-T-022s	02/06/2023	02/06/2023	02/06/2023
A-T-024s	08/06/2023	08/06/2023	08/06/2023
A-T-027s	07/06/2023	07/06/2023	07/06/2023
A-T-031s	08/06/2023	08/06/2023	08/06/2023
A-T-032s	08/06/2023	08/06/2023	08/06/2023
A-T-040s	08/06/2023	08/06/2023	08/06/2023
A-T-044	08/06/2023	08/06/2023	08/06/2023
A-T-045	05/06/2023	05/06/2023	05/06/2023
A-T-055s	07/06/2023	07/06/2023	07/06/2023
Calc-As Recd	07/06/2023	07/06/2023	07/06/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

Envirolab Analysis Dates

Lab Sample ID	23/03605/1	23/03605/2	23/03605/3	23/03605/4	23/03605/5
Client Sample No					
Client Sample ID/Depth	VS1 0.20m	VS2 0.20m	VS3 0.30m	VS4 0.20m	VS5 0.30m
Date Sampled	13/04/23	13/04/23	13/04/23	13/04/23	13/04/23
A-T-019s	24/04/2023	24/04/2023	24/04/2023	24/04/2023	24/04/2023
A-T-022s	21/04/2023	21/04/2023	21/04/2023	21/04/2023	21/04/2023
A-T-024s	27/04/2023	27/04/2023	27/04/2023	27/04/2023	27/04/2023
A-T-027s	27/04/2023	27/04/2023	27/04/2023	27/04/2023	27/04/2023
A-T-031s	26/04/2023	26/04/2023	26/04/2023	26/04/2023	26/04/2023
A-T-032s	26/04/2023	26/04/2023	26/04/2023	26/04/2023	26/04/2023
A-T-040s	28/04/2023	28/04/2023	28/04/2023	28/04/2023	28/04/2023
A-T-044	28/04/2023	28/04/2023	28/04/2023	28/04/2023	28/04/2023
A-T-045	18/04/2023	18/04/2023	18/04/2023	18/04/2023	18/04/2023
A-T-055s	20/04/2023	20/04/2023	20/04/2023	20/04/2023	20/04/2023
Calc-As Recd	21/04/2023	21/04/2023	21/04/2023	21/04/2023	21/04/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.


End of Report

Residential with Homegrown Produce	Determinant	Guidance Value (mg/kg)	Guidance Value (mg/kg)	Guidance Value (mg/kg)	Primary Data Source
		1% SOM	2.5% SOM	6% SOM	
PAH	Acenaphthene	210	510	1100	LQM/CIEH S4UL
	Acenaphthylene	170	420	920	LQM/CIEH S4UL
	Anthracene	2400	5400	11000	LQM/CIEH S4UL
	Benzo(a)anthracene	7.2	11	13	LQM/CIEH S4UL
	Benzo(a)pyrene	2.2	2.7	3	LQM/CIEH S4UL
	Benzo(b)fluoranthene	2.3	3.3	3.7	LQM/CIEH S4UL
	Benzo(ghi)perylene	320	340	350	LQM/CIEH S4UL
	Benzo(k)fluoranthene	77	93	100	LQM/CIEH S4UL
	Chrysene	15	22	27	LQM/CIEH S4UL
	Dibenzo(ah)anthracene	0.24	0.28	0.30	LQM/CIEH S4UL
	Fluoranthene	280	560	890	LQM/CIEH S4UL
	Fluorene	170	400	860	LQM/CIEH S4UL
	Indeno(123-cd)pyrene	27	36	41	LQM/CIEH S4UL
	Naphthalene	2.3	5.6	13	LQM/CIEH S4UL
	Phenanthrene	95	220	440	LQM/CIEH S4UL
Pyrene	620	1200	2000	LQM/CIEH S4UL	
Other Organics	Phenol	280	550	1100	LQM/CIEH S4UL
Metals	Arsenic	37	37	37	LQM/CIEH S4UL
	Beryllium	1.7	1.7	1.7	LQM/CIEH S4UL
	Boron	290	290	290	LQM/CIEH S4UL
	Cadmium	11	11	11	LQM/CIEH S4UL
	Chromium (III)	910	910	910	LQM/CIEH S4UL
	Chromium (VI)	21	21	21	LQM/CIEH S4UL
	Copper	2400	2400	2400	LQM/CIEH S4UL
	Lead	200	200	200	DEFRA C4SL
	Mercury	40	40	40	LQM/CIEH S4UL
	Nickel	130	130	130	LQM/CIEH S4UL
	Selenium	250	250	250	LQM/CIEH S4UL
	Vanadium	410	410	410	LQM/CIEH S4UL
	Zinc	3700	3700	3700	LQM/CIEH S4UL

Residential with Homegrown Produce	Guidance Value (mg/kg)	Guidance Value (mg/kg)	Guidance Value (mg/kg)	Primary Data Source
	1% SOM	2.5% SOM	6% SOM	
Aliphatic				
EC 5-6	42	78	160	LQM/CIEH S4UL
EC >6-8	100	230	530	LQM/CIEH S4UL
EC >8-10	27	65	150	LQM/CIEH S4UL
EC >10-12	130 (48)	330 (118)	760 (283)	LQM/CIEH S4UL
EC >12-16	1100 (24)	2400 (59)	4300 (142)	LQM/CIEH S4UL
EC >16-35	65000 (8.48)	92000 (21)	110000	LQM/CIEH S4UL
EC >35-44	65000 (8.48)	92000 (21)	110000	LQM/CIEH S4UL
Aromatic				
EC 5-7 (benzene)	70	140	300	LQM/CIEH S4UL
EC >7-8 (toluene)	130	290	660	LQM/CIEH S4UL
EC >8-10	34	83	190	LQM/CIEH S4UL
EC >10-12	74	180	380	LQM/CIEH S4UL
EC >12-16	140	330	660	LQM/CIEH S4UL
EC >16-21	260	540	930	LQM/CIEH S4UL
EC >21-35	1100	1500	1700	LQM/CIEH S4UL
EC >35-44	1100	1500	1700	LQM/CIEH S4UL
Aliphatic and Aromatic				
EC >44-70	1600	1800	1900	LQM/CIEH S4UL
BTEX				
Benzene	0.087	0.17	0.37	LQM/CIEH S4UL
Toluene	130	290	660	LQM/CIEH S4UL
Ethylbenzene	47	110	260	LQM/CIEH S4UL
m/p Xylenes	56	130	310	LQM/CIEH S4UL
o Xylene	60	140	330	LQM/CIEH S4UL

SOM = Soil Organic Matter

Values in brackets indicate the solubility or vapour saturation limit where this is exceeded by the GAC



Registered Waste Carrier
Licence No. CB0U136688


The Woodshed, Elmsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01608 841389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: CH64STZ Day: TUES Date: 5/4/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	
			6W	8W
DAYWORK				
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes
SCR/Topsoil	Concrete	17 01 01		
Crane Hire	Brick	17 01 02		
Type 1 Stone	Subsoil	17 05 04	X	
C/Brick	Road Material			
Hardcore	Mixed Waste			
Ballast	Sand			
ODOUR	VISUAL	OTHER	COMMENTS	
CUSTOMER: <u>J BLACKWELL</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>		
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		Date / Time:		
HIRERS SIGNATURE: _____		DRIVERS SIGNATURE: _____		
PLEASE ALSO PRINT: _____		PLEASE ALSO PRINT: _____		

VAT No. 173 7038 04



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Licence No. CB0U136689

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**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: CH64STZ Day: TUES Date: 5/4/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	
			6W	8W
DAYWORK				
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes
SCR/Topsoil	Concrete	17 01 01		
Crane Hire	Brick	17 01 02		
Type 1 Stone	Subsoil	17 05 04		
C/Brick	Road Material			
Hardcore	Mixed Waste			
Ballast	Sand			
ODOUR	VISUAL	OTHER	COMMENTS	
CUSTOMER: <u>J BLACKWELL</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>		
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		Date / Time:		
HIRERS SIGNATURE: _____		DRIVERS SIGNATURE: _____		
PLEASE ALSO PRINT: _____		PLEASE ALSO PRINT: _____		

VAT No. 173 7038 04

	WASTE CONSIGNMENT DOCUMENTS	Job no. 2240423
	Mawles Farm, Sibford Gower, OX15 5RW	Fig.

Registered Waste Carrier
Licence No. CW24136689

STOBART HAULAGE LTD

The Woodshed, Elmsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01608 641369 | Mob: 07887 848428

CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE

Vehicle Reg: LH64STZ WASTE COLLECTOR
No: LH64STZ Day: WED Date: 13/4/22

LORRY	Hours	Travel Time	Total Hours	6W	6W
DAYWORK					<input checked="" type="checkbox"/>
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes	
SCR/Topsoil	Concrete	17 01 01			
Crane Hire	Brick	17 01 02			
Type 1 Stone	Subsoil	17 05 04	X		
C/Brick	Road Material				
Hardcore	Mixed Waste				
Ballast	Sand				
ODOUR	VISUAL	OTHER	COMMENTS		
CUSTOMER: <u>J Blackwell</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>			
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		DATE/TIME: <u>13/4/22</u>			
HIRERS SIGNATURE: _____		DRIVERS SIGNATURE: _____			
PLEASE ALSO PRINT: _____		PLEASE ALSO PRINT: <u>12578246</u>			

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Registered Waste Carrier
Licence No. CW24136689

STOBART HAULAGE LTD

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Tel: 01608 641369 | Mob: 07887 848428

CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE

Vehicle Reg: _____ WASTE COLLECTOR
No: LH64STZ Day: WED Date: 13/4/22

LORRY	Hours	Travel Time	Total Hours	6W	6W
DAYWORK					<input checked="" type="checkbox"/>
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes	
SCR/Topsoil	Concrete	17 01 01			
Crane Hire	Brick	17 01 02			
Type 1 Stone	Subsoil	17 05 04	X		
C/Brick	Road Material				
Hardcore	Mixed Waste				
Ballast	Sand				
ODOUR	VISUAL	OTHER	COMMENTS		
CUSTOMER: <u>J Blackwell</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>			
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		DATE/TIME: <u>13/4/22</u>			
HIRERS SIGNATURE: _____		DRIVERS SIGNATURE: _____			
PLEASE ALSO PRINT: _____		PLEASE ALSO PRINT: <u>12578246</u>			

VAT No. 173 7038 04

T.M. Mitchell
tcheil

STOBART HAULAGE LTD
Registered Waste Carrier
License No. CW05119699

The Woodshed, Elmsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01608 641389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: LH415TZ Day: WED Date: 13/4/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	6W	6W
DAYWORK					<input checked="" type="checkbox"/>
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes	
SCR/Topsol	Concrete	17 01 01			
Crane Hire	Brick	17 01 02			
Type 1 Stone	Subsoil	17 05 04	X		
C/Brick	Road Material				
Hardcore	Mixed Waste				
Ballast	Sand				
ODOUR	VISUAL	OTHER	COMMENTS:		
CUSTOMER: <u>J BLAKEMAN</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>			
TRANSFERRED TO/FROM: <u>EXHILL QUARRY</u>		Date / Time: <u>13/4/22</u>			
HIRERS SIGNATURE: <u>[Signature]</u>		DRIVERS SIGNATURE: <u>[Signature]</u>			
PLEASE ALSO PRINT: <u>[Signature]</u>		PLEASE ALSO PRINT: <u>[Signature]</u>			

VAT No. 173 7038 04

STOBART HAULAGE LTD
Registered Waste Carrier
License No. CW05119699

The Woodshed, Elmsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01608 641389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: LH415TZ Day: WED Date: 13/4/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	6W	6W
DAYWORK					<input checked="" type="checkbox"/>
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes	
SCR/Topsol	Concrete	17 01 01			
Crane Hire	Brick	17 01 02			
Type 1 Stone	Subsoil	17 05 04	X		
C/Brick	Road Material				
Hardcore	Mixed Waste				
Ballast	Sand				
ODOUR	VISUAL	OTHER	COMMENTS:		
CUSTOMER: <u>J BLAKEMAN</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>			
TRANSFERRED TO/FROM: <u>EXHILL QUARRY</u>		Date / Time: <u>13/4/22</u>			
HIRERS SIGNATURE: <u>[Signature]</u>		DRIVERS SIGNATURE: <u>[Signature]</u>			
PLEASE ALSO PRINT: <u>[Signature]</u>		PLEASE ALSO PRINT: <u>[Signature]</u>			

VAT No. 173 7038 04

STOBART HAULAGE LTD
Registered Waste Carrier
Licence No. CB02136889

The Woodshed, Elmsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01608 641389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: CH648TZ Day: THUR Date: 28/4/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	6W	6W
DAYWORK					
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes	
SCR/Topsail	Concrete	17 01 01			
Crane Hire	Brick	17 01 02			
Type 1 Stone	Subsoil	17 05 04	X		
C/Brick	Road Material				
Hardcore	Mixed Waste				
Ballast	Sand				
ODOUR	VISUAL	OTHER	COMMENTS		
CUSTOMER: <u>J BLACKWELL</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>			
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		Date / Time: <u></u>			
HIRERS SIGNATURE: <u>[Signature]</u>		DRIVERS SIGNATURE: <u>[Signature]</u>			
PLEASE ALSO PRINT: <u></u>		PLEASE ALSO PRINT: <u>12/03/2022</u>			

VAT No. 173 7038 04

STOBART HAULAGE LTD
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Licence No. CB02136889

The Woodshed, Elmsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01608 641389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: CH648TZ Day: THUR Date: 28/4/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	6W	6W
DAYWORK					
SUPPLY	DESCRIPTION / EWC CODE		Number of Loads	M/Tonnes	
SCR/Topsail	Concrete	17 01 01			
Crane Hire	Brick	17 01 02			
Type 1 Stone	Subsoil	17 05 04	X		
C/Brick	Road Material				
Hardcore	Mixed Waste				
Ballast	Sand				
ODOUR	VISUAL	OTHER	COMMENTS		
CUSTOMER: <u>J BLACKWELL</u>		ADDRESS/SITE: <u>SIBFORD GOWER OX15 5RW</u>			
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		Date / Time: <u></u>			
HIRERS SIGNATURE: <u>[Signature]</u>		DRIVERS SIGNATURE: <u>[Signature]</u>			
PLEASE ALSO PRINT: <u></u>		PLEASE ALSO PRINT: <u>12/03/2022</u>			

VAT No. 173 7038 04

STOBART HAULAGE LTD
Registered Waste Carrier
Licence No. CRDU136987

The Woodshed, Eimsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01606 841389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: LH648R2 Day: Tues Date: 3/5/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	
			6W	8W
DAYWORK				
SUPPLY	DESCRIPTION / EWC CODE	Number of Loads	M/Tonnes	
SCR/Topsoil	Concrete 17 01 01			
Crane Hire	Brick 17 01 02			
Type 1 Stone	Subsoil 17 05 04	X		
C/Brick	Road Material			
Hardcore	Mixed Waste			
Ballast	Sand			
ODOUR	VISUAL	OTHER	COMMENTS	
CUSTOMER: <u>J BLACKWELL</u>		ADDRESS/SITE: <u>STOBART GOWER OX15 5RW</u>		
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		Date / Time: <u></u>		
HIRERS SIGNATURE: <u>[Redacted]</u>		DRIVERS SIGNATURE: <u>[Redacted]</u>		
PLEASE ALSO PRINT:		PLEASE ALSO PRINT: <u>STOBART</u>		

VAT No 173 7038 04

STOBART HAULAGE LTD
Registered Waste Carrier
Licence No. CRDU136987

The Woodshed, Eimsfield Industrial Estate, Worcester Road, Chipping Norton OX7 5XL
Tel: 01606 841389 | Mob: 07887 848428

**CONTROLLED WASTE
TRANSFER NOTE/DAY WORK
GRAB HIRE**

Vehicle Reg: LH648R2 Day: Tues Date: 3/5/22 WASTE COLLECTOR

LORRY	Hours	Travel Time	Total Hours	
			6W	8W
DAYWORK				
SUPPLY	DESCRIPTION / EWC CODE	Number of Loads	M/Tonnes	
SCR/Topsoil	Concrete 17 01 01			
Crane Hire	Brick 17 01 02			
Type 1 Stone	Subsoil 17 05 04	X		
C/Brick	Road Material			
Hardcore	Mixed Waste			
Ballast	Sand			
ODOUR	VISUAL	OTHER	COMMENTS	
CUSTOMER: <u>J BLACKWELL</u>		ADDRESS/SITE: <u>STOBART GOWER OX15 5RW</u>		
TRANSFERRED TO/FROM: <u>EDGEHILL QUARRY</u>		Date / Time: <u></u>		
HIRERS SIGNATURE: <u>[Redacted]</u>		DRIVERS SIGNATURE: <u>[Redacted]</u>		
PLEASE ALSO PRINT:		PLEASE ALSO PRINT: <u>STOBART</u>		

VAT No 173 7038 04