



## ANALYTICAL TEST REPORT

**Contract no:** 130702

**Contract name:** 3690A Middle Lane, Nether Broughton

**Client reference:** 3690A

**Clients name:** Castledine Environmental

**Clients address:** 4 Wymeswold Road  
Hoton  
Loughborough  
LE12 5SN

**Samples received:** 20 February 2024

**Analysis started:** 20 February 2024

**Analysis completed:** 29 February 2024

**Report issued:** 29 February 2024

**Key**

- U UKAS accredited test
- M MCERTS & UKAS accredited test
- \$ Test carried out by an approved subcontractor
- I/S Insufficient sample to carry out test
- N/S Sample not suitable for testing
- NAD No Asbestos Detected

**Approved by:**



Abbie Neasham-Bourn  
Senior Reporting Administrator

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## SAMPLE INFORMATION

### MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Lab ref	Sample id	Depth (m)	Sample description	Material removed	% Removed	% Moisture
130702-1	SS01 ES01	0.20	Sandy Loam with Gravel & Roots	-	-	24.6
130702-2	SS02 ES01	0.25	Sandy Loamy Clay with Gravel & Roots	-	-	21.1
130702-3	SS03 ES01	0.25	Clayey Loam with Gravel & Roots	-	-	23.3
130702-4	SS04 ES01	0.25	Loam with Gravel & Roots	-	-	22.9
130702-5	SS05 ES01	0.25	Loam with Gravel & Roots	-	-	22.4
130702-6	SS06 ES01	0.25	Loam with Gravel & Roots	-	-	21.8

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## SOILS

Lab number			130702-1	130702-2	130702-3	130702-4	130702-5	130702-6
Sample id			SS01 ES01	SS02 ES01	SS03 ES01	SS04 ES01	SS05 ES01	SS06 ES01
Depth (m)			0.20	0.25	0.25	0.25	0.25	0.25
Date sampled			16/02/2024	16/02/2024	16/02/2024	16/02/2024	16/02/2024	16/02/2024
Test	Method	Units						
Arsenic (total)	CE264 <sup>M</sup>	mg/kg As	6.4	6.4	8.3	6.4	7.7	5.8
Cadmium (total)	CE264 <sup>M</sup>	mg/kg Cd	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Chromium (total)	CE264 <sup>U</sup>	mg/kg Cr	29.7	29.8	31.5	20.5	29.8	25.0
Chromium (VI)	CE263	mg/kg CrVI	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Copper (total)	CE264 <sup>M</sup>	mg/kg Cu	14.1	9.8	11.5	10.0	13.2	11.9
Lead (total)	CE264 <sup>U</sup>	mg/kg Pb	51.5	29.6	34.8	44.5	54.0	31.8
Mercury (total)	CE264 <sup>U</sup>	mg/kg Hg	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
Nickel (total)	CE264 <sup>M</sup>	mg/kg Ni	12.7	11.9	15.1	11.5	15.3	12.3
Selenium (total)	CE264	mg/kg Se	<3	<3	<3	<3	<3	<3
Zinc (total)	CE264 <sup>M</sup>	mg/kg Zn	72.0	51.4	65.5	64.5	75.2	52.2
pH	CE004 <sup>M</sup>	units	4.8	5.4	5.6	4.7	5.7	5.8
Phenols (total)	CE078	mg/kg PhOH	0.7	<0.5	<0.5	<0.5	0.7	<0.5
Total Organic Carbon (TOC)	CE197	% w/w C	2.3	1.0	1.4	3.2	2.6	1.8
Estimate of OMC (calculated from TOC)	CE197	% w/w	4.0	1.8	2.4	5.6	4.4	3.1
PAH								
Naphthalene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Acenaphthylene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Acenaphthene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluorene	CE087 <sup>U</sup>	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Phenanthrene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	0.04	0.06	<0.02
Anthracene	CE087 <sup>U</sup>	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	0.11	0.15	0.04
Pyrene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	0.10	0.13	0.03
Benzo(a)anthracene	CE087 <sup>U</sup>	mg/kg	<0.02	<0.02	<0.02	0.06	0.07	0.03
Chrysene	CE087 <sup>M</sup>	mg/kg	<0.03	<0.03	<0.03	0.06	0.08	<0.03
Benzo(b)fluoranthene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	0.05	0.07	<0.02
Benzo(k)fluoranthene	CE087 <sup>M</sup>	mg/kg	<0.03	<0.03	<0.03	<0.03	0.03	<0.03
Benzo(a)pyrene	CE087 <sup>U</sup>	mg/kg	<0.02	<0.02	<0.02	0.05	0.07	0.02
Indeno(123cd)pyrene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	0.04	0.05	<0.02
Dibenz(ah)anthracene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo(ghi)perylene	CE087 <sup>M</sup>	mg/kg	<0.02	<0.02	<0.02	0.04	0.04	<0.02
PAH (total of USEPA 16)	CE087	mg/kg	<0.34	<0.34	<0.34	0.55	0.76	<0.34
Semi-volatiles								
N-Nitrosodimethylamine	CE189	mg/kg	-	-	<0.1	-	-	-
Phenol	CE189	mg/kg	-	-	<0.1	-	-	-
Bis(2-chloroethyl)ether	CE189	mg/kg	-	-	<0.1	-	-	-
2-Chlorophenol	CE189	mg/kg	-	-	<0.1	-	-	-
1,3-Dichlorobenzene	CE189	mg/kg	-	-	<0.1	-	-	-
1,4-Dichlorobenzene	CE189	mg/kg	-	-	<0.1	-	-	-
2-Methylphenol	CE189	mg/kg	-	-	<0.1	-	-	-
1,2-Dichlorobenzene	CE189	mg/kg	-	-	<0.1	-	-	-

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## SOILS

Lab number			130702-1	130702-2	130702-3	130702-4	130702-5	130702-6
Sample id			SS01 ES01	SS02 ES01	SS03 ES01	SS04 ES01	SS05 ES01	SS06 ES01
Depth (m)			0.20	0.25	0.25	0.25	0.25	0.25
Date sampled			16/02/2024	16/02/2024	16/02/2024	16/02/2024	16/02/2024	16/02/2024
Test	Method	Units						
Bis(2-chloroisopropyl)ether	CE189	mg/kg	-	-	<0.1	-	-	-
3&4-Methylphenol	CE189	mg/kg	-	-	<0.1	-	-	-
N-Nitrosodi-n-propylamine	CE189	mg/kg	-	-	<0.1	-	-	-
Hexachloroethane	CE189	mg/kg	-	-	<0.1	-	-	-
Nitrobenzene	CE189	mg/kg	-	-	<0.1	-	-	-
Isophorone	CE189	mg/kg	-	-	<0.1	-	-	-
2,4-Dimethylphenol	CE189	mg/kg	-	-	<0.1	-	-	-
2-Nitrophenol	CE189	mg/kg	-	-	<0.1	-	-	-
Bis(2-chloroethoxy)methane	CE189	mg/kg	-	-	<0.1	-	-	-
2,4-Dichlorophenol	CE189	mg/kg	-	-	<0.1	-	-	-
1,2,4-Trichlorobenzene	CE189	mg/kg	-	-	<0.1	-	-	-
4-Chloroaniline	CE189	mg/kg	-	-	<0.1	-	-	-
Hexachlorobutadiene	CE189	mg/kg	-	-	<0.1	-	-	-
4-Chloro-3-methylphenol	CE189	mg/kg	-	-	<0.1	-	-	-
2-Methylnaphthalene	CE189	mg/kg	-	-	<0.1	-	-	-
1-Methylnaphthalene	CE189	mg/kg	-	-	<0.1	-	-	-
Hexachlorocyclopentadiene	CE189	mg/kg	-	-	<0.1	-	-	-
2,4,6-Trichlorophenol	CE189	mg/kg	-	-	<0.1	-	-	-
2,4,5-Trichlorophenol	CE189	mg/kg	-	-	<0.1	-	-	-
2-Chloronaphthalene	CE189	mg/kg	-	-	<0.1	-	-	-
2-Nitroaniline	CE189	mg/kg	-	-	<0.1	-	-	-
Dimethyl phthalate	CE189	mg/kg	-	-	<0.1	-	-	-
2,6-Dinitrotoluene	CE189	mg/kg	-	-	<0.1	-	-	-
3-Nitroaniline	CE189	mg/kg	-	-	<0.1	-	-	-
2,4-Dinitrophenol	CE189	mg/kg	-	-	<0.1	-	-	-
4-Nitrophenol	CE189	mg/kg	-	-	<0.1	-	-	-
2,4-Dinitrotoluene	CE189	mg/kg	-	-	<0.1	-	-	-
Dibenzofuran	CE189	mg/kg	-	-	<0.1	-	-	-
Diethyl phthalate	CE189	mg/kg	-	-	<0.1	-	-	-
4-Chlorophenylphenyl ether	CE189	mg/kg	-	-	<0.1	-	-	-
4-Nitroaniline	CE189	mg/kg	-	-	<0.1	-	-	-
2-Methyl-4,6-dinitrophenol	CE189	mg/kg	-	-	<0.1	-	-	-
Azobenzene	CE189	mg/kg	-	-	<0.1	-	-	-
4-Bromophenylphenyl ether	CE189	mg/kg	-	-	<0.1	-	-	-
Hexachlorobenzene	CE189	mg/kg	-	-	<0.1	-	-	-
Pentachlorophenol	CE189	mg/kg	-	-	<0.1	-	-	-
Carbazole	CE189	mg/kg	-	-	<0.1	-	-	-
Di-n-butyl phthalate	CE189	mg/kg	-	-	<0.1	-	-	-
Butylbenzyl phthalate	CE189	mg/kg	-	-	<0.1	-	-	-
Bis(2-ethylhexyl)phthalate	CE189	mg/kg	-	-	<0.1	-	-	-
Di-n-octyl phthalate	CE189	mg/kg	-	-	<0.1	-	-	-

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## SOILS

Lab number			130702-1	130702-2	130702-3	130702-4	130702-5	130702-6
Sample id			SS01 ES01	SS02 ES01	SS03 ES01	SS04 ES01	SS05 ES01	SS06 ES01
Depth (m)			0.20	0.25	0.25	0.25	0.25	0.25
Date sampled			16/02/2024	16/02/2024	16/02/2024	16/02/2024	16/02/2024	16/02/2024
Test	Method	Units						
SVOC Tentatively Identified Compounds	CE189	-	-	-	Non Detected	-	-	-
Subcontracted Analysis								
Asbestos (qualitative)	\$	-	-	-	-	NAD	-	-

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## METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE264	Arsenic (total)	Aqua Regia Extraction, ICPOES	Dry	M	1.8	mg/kg As
CE264	Cadmium (total)	Aqua Regia Extraction, ICPOES	Dry	M	1.6	mg/kg Cd
CE264	Chromium (total)	Aqua Regia Extraction, ICPOES	Dry	U	2	mg/kg Cr
CE263	Chromium (VI)	Discrete Analyser	Dry			mg/kg CrVI
CE264	Copper (total)	Aqua Regia Extraction, ICPOES	Dry	M	1.6	mg/kg Cu
CE264	Lead (total)	Aqua Regia Extraction, ICPOES	Dry	U	2.3	mg/kg Pb
CE264	Mercury (total)	Aqua Regia Extraction, ICPOES	Dry	U	0.7	mg/kg Hg
CE264	Nickel (total)	Aqua Regia Extraction, ICPOES	Dry	M	2.1	mg/kg Ni
CE264	Selenium (total)	Aqua Regia Extraction, ICPOES	Dry	U	3	mg/kg Se
CE264	Zinc (total)	Aqua Regia Extraction, ICPOES	Dry	M	4	mg/kg Zn
CE004	pH	Based on BS 1377, pH Meter	As received	M	-	units
CE078	Phenols (total)	Extraction, Continuous Flow Colorimetry	As received		0.5	mg/kg PhOH
CE197	Total Organic Carbon (TOC)	Carbon Analyser	Dry		0.1	% w/w C
CE197	Estimate of OMC (calculated from TOC)	Calculation from Total Organic Carbon	Dry		0.1	% w/w
CE087	Naphthalene	Solvent extraction, GC-MS	As received	M	0.016	mg/kg
CE087	Acenaphthylene	Solvent extraction, GC-MS	As received	M	0.015	mg/kg
CE087	Acenaphthene	Solvent extraction, GC-MS	As received	M	0.013	mg/kg
CE087	Fluorene	Solvent extraction, GC-MS	As received	U	0.013	mg/kg
CE087	Phenanthrene	Solvent extraction, GC-MS	As received	M	0.014	mg/kg
CE087	Anthracene	Solvent extraction, GC-MS	As received	U	0.017	mg/kg
CE087	Fluoranthene	Solvent extraction, GC-MS	As received	M	0.017	mg/kg
CE087	Pyrene	Solvent extraction, GC-MS	As received	M	0.016	mg/kg
CE087	Benzo(a)anthracene	Solvent extraction, GC-MS	As received	U	0.012	mg/kg
CE087	Chrysene	Solvent extraction, GC-MS	As received	M	0.028	mg/kg
CE087	Benzo(b)fluoranthene	Solvent extraction, GC-MS	As received	M	0.02	mg/kg
CE087	Benzo(k)fluoranthene	Solvent extraction, GC-MS	As received	M	0.025	mg/kg
CE087	Benzo(a)pyrene	Solvent extraction, GC-MS	As received	U	0.019	mg/kg
CE087	Indeno(123cd)pyrene	Solvent extraction, GC-MS	As received	M	0.019	mg/kg
CE087	Dibenz(ah)anthracene	Solvent extraction, GC-MS	As received	M	0.017	mg/kg
CE087	Benzo(ghi)perylene	Solvent extraction, GC-MS	As received	M	0.019	mg/kg
CE087	PAH (total of USEPA 16)	Solvent extraction, GC-MS	As received		0.028	mg/kg
CE189	N-Nitrosodimethylamine	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Phenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Bis(2-chloroethyl)ether	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Chlorophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	1,3-Dichlorobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	1,4-Dichlorobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Methylphenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	1,2-Dichlorobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Bis(2-chloroisopropyl)ether	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	3&4-Methylphenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	N-Nitrosodi-n-propylamine	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Hexachloroethane	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Nitrobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg

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## METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE189	Isophorone	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,4-Dimethylphenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Nitrophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Bis(2-chloroethoxy)methane	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,4-Dichlorophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	1,2,4-Trichlorobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	4-Chloroaniline	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Hexachlorobutadiene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	4-Chloro-3-methylphenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Methylnaphthalene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	1-Methylnaphthalene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Hexachlorocyclopentadiene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,4,6-Trichlorophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,4,5-Trichlorophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Chloronaphthalene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Nitroaniline	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Dimethyl phthalate	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,6-Dinitrotoluene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	3-Nitroaniline	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,4-Dinitrophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	4-Nitrophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2,4-Dinitrotoluene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Dibenzofuran	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Diethyl phthalate	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	4-Chlorophenylphenyl ether	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	4-Nitroaniline	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	2-Methyl-4,6-dinitrophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Azobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	4-Bromophenylphenyl ether	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Hexachlorobenzene	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Pentachlorophenol	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Carbazole	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Di-n-butyl phthalate	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Butylbenzyl phthalate	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Bis(2-ethylhexyl)phthalate	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	Di-n-octyl phthalate	Solvent extraction, GC-MS	As received		0.1	mg/kg
CE189	SVOC Tentatively Identified Compounds	Solvent extraction, GC-MS	As received		-	-
\$	Asbestos (qualitative)	HSG 248, Microscopy	Dry	U	-	-
\$	Asbestos (quantitative)	HSG 248, Microscopy & Gravimetry	Dry	U	0.001	% w/w

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## DEVIATING SAMPLE INFORMATION

### Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

### Key

N	No (not deviating sample)
Y	Yes (deviating sample)
NSD	Sampling date not provided
NST	Sampling time not provided (waters only)
EHT	Sample exceeded holding time(s)
IC	Sample not received in appropriate containers
HP	Headspace present in sample container
NCF	Sample not chemically fixed (where appropriate)
OR	Other (specify)

Lab ref	Sample id	Depth (m)	Deviating	Tests (Reason for deviation)
130702-1	SS01 ES01	0.20	N	
130702-2	SS02 ES01	0.25	N	
130702-3	SS03 ES01	0.25	N	
130702-4	SS04 ES01	0.25	N	
130702-5	SS05 ES01	0.25	N	
130702-6	SS06 ES01	0.25	N	



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## ADDITIONAL INFORMATION

### Notes

Opinions and interpretations expressed herein are outside the UKAS accreditation scope.

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

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

Soil/Solid samples will be disposed of 4 weeks from initial receipt unless otherwise agreed.

Waters and leachate samples will be disposed of 2 weeks from report issue unless otherwise agreed.

DEFRA Licence for the introduction and movement within England of prohibited soil for chemical and physical analysis Licence No: 132693/469907-0

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones, where applicable.

Moisture Content Calculated on a Wet Weight basis