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DETS Report No: 21-10461

Site Reference: Moxley Road, Crumpsall

Project / Job Ref: A4255

Order No: A4255

Sample Receipt Date: 25/08/2021

Sample Scheduled Date: 25/08/2021

Report Issue Number: 1

Reporting Date: 01/09/2021

Authorised by:

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 21-10461	Date Sampled	20/08/21	20/08/21			
Earth Environmental & Geotechnical Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: Moxley Road, Crumpsall	TP / BH No	WS01	WS03			
Project / Job Ref: A4255	Additional Refs	None Supplied	None Supplied			
Order No: A4255	Depth (m)	0.25	1.00			
Reporting Date: 01/09/2021	DETS Sample No	561258	561259			

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected			
pH	pH Units	N/a	MCERTS	8.2	7.1			
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Complex Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Free Cyanide	mg/kg	< 2	NONE	< 2	< 2			
Total Sulphate as SO ₄	mg/kg	< 200	MCERTS	820	889			
Total Sulphate as SO ₄	%	< 0.02	MCERTS	0.08	0.09			
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	35	23			
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.03	0.02			
Sulphide	mg/kg	< 5	NONE	< 5	< 5			
Organic Matter (SOM)	%	< 0.1	NONE	1.5	1.2			
Arsenic (As)	mg/kg	< 2	MCERTS	8	7			
Barium (Ba)	mg/kg	< 2.5	MCERTS	169	106			
Beryllium (Be)	mg/kg	< 0.5	MCERTS	< 0.5	0.6			
W/S Boron	mg/kg	< 1	NONE	< 1	< 1			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.2	< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	9	13			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	15	12			
Lead (Pb)	mg/kg	< 3	MCERTS	106	45			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	5	9			
Selenium (Se)	mg/kg	< 2	MCERTS	< 3	< 3			
Vanadium (V)	mg/kg	< 1	MCERTS	15	22			
Zinc (Zn)	mg/kg	< 3	MCERTS	97	49			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2			
EPH (C10 - C40)	mg/kg	< 6	MCERTS	141	22			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)



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Soil Analysis Certificate - Speciated PAHs						
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Earth Environmental & Geotechnical Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: Moxley Road, Crumpsall	TP / BH No	WS01	WS03			
Project / Job Ref: A4255	Additional Refs	None Supplied	None Supplied			
Order No: A4255	Depth (m)	0.25	1.00			
Reporting Date: 01/09/2021	DETS Sample No	561258	561259			

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	0.61	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Acenaphthene	mg/kg	< 0.1	MCERTS	1.10	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	0.71	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	4.84	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	1.07	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	6.11	0.26		
Pyrene	mg/kg	< 0.1	MCERTS	5.37	0.22		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	2.55	0.25		
Chrysene	mg/kg	< 0.1	MCERTS	2.33	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	2.73	0.32		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.81	< 0.1		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	1.87	0.16		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	1.34	0.32		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	0.16	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	1.05	0.14		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	32.7	1.7		



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Soil Analysis Certificate - TPH CWG Banded

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Earth Environmental & Geotechnical Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: Moxley Road, Crumpsall	TP / BH No	WS01	WS03			
Project / Job Ref: A4255	Additional Refs	None Supplied	None Supplied			
Order No: A4255	Depth (m)	0.25	1.00			
Reporting Date: 01/09/2021	DETS Sample No	561258	561259			

Determinand	Unit	RL	Accreditation			
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	4	< 2	
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	3	< 2	
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	8	< 2	
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	35	< 3	
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	75	< 10	
Aromatic (C5 - C35)	mg/kg	< 21	NONE	125	< 21	
Total >C5 - C35	mg/kg	< 42	NONE	125	< 42	



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Soil Analysis Certificate - BTEX / MTBE						
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Earth Environmental & Geotechnical Ltd	Time Sampled	None Supplied	None Supplied			
Site Reference: Moxley Road, Crumpsall	TP / BH No	WS01	WS03			
Project / Job Ref: A4255	Additional Refs	None Supplied	None Supplied			
Order No: A4255	Depth (m)	0.25	1.00			
Reporting Date: 01/09/2021	DETS Sample No	561258	561259			

Determinand	Unit	RL	Accreditation				
Benzene	ug/kg	< 2	MCERTS	< 2	< 2		
Toluene	ug/kg	< 5	MCERTS	< 5	< 5		
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2		
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2		
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2		
MTBE	ug/kg	< 5	MCERTS	< 5	< 5		



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Soil Analysis Certificate - Sample Descriptions

DETS Report No: 21-10461	
Earth Environmental & Geotechnical Ltd	
Site Reference: Moxley Road, Crumpsall	
Project / Job Ref: A4255	
Order No: A4255	
Reporting Date: 01/09/2021	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
561258	WS01	None Supplied	0.25	14.6	Brown clayey sand
561259	WS03	None Supplied	1.00	15	Brown clayey sand with stones and brick

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{1/s}

Unsuitable Sample ^{u/s}



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Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 21-10461

Earth Environmental & Geotechnical Ltd

Site Reference: Moxley Road, Crumpsall

Project / Job Ref: A4255

Order No: A4255

Reporting Date: 01/09/2021

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphénylcarbazine followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received