

Appendix J Hydrock Visual Inspection Records of Gas Protection Measures

Visual Inspection of Gas Protection Measures

Site name:	Kestrel Park, Bursledon	Weather at time of inspection:	PATCHY CLOUDS COOL
Job number:	C-08162-C	Gas characteristic situation:	C52
Plot Number(s):	60-62	Type of development and building/block checked:	residential/commercial/other
Date:	11/04/15	Building description:	LOW RISE
Checked by:	David Pethica	Foundation type:	suspended floor/slab/other
		Gas protection type:	passive/active

No.	Item	Comments (see notes)
1 Gas membrane		
1.1	Condition of sub-grade and underside of gas membrane	NOT SEEN / INSPECTED
1.2	Gas membrane type	JUTA GPI
1.3	Gas membrane condition	GOOD
1.4	Joining tape product	ALL JOINTS HEAT SEALED. DETAILS WITH PREMISEAL GMA
1.5	Lapping design	100mm MINIMUM
1.6	Laps, welds and joints seals	GOOD - HEAT SEALED / PREMISEAL GMA
1.7	Service entries seals	GOOD - TOPHAT DETAILS WITH PREMISEAL GMA
2 Passive venting		
2.1	Sub-floor void	NOT INSPECTED BUT PRESENT
2.2	External wall airbricks	PRESENT 1-3m INTERVALS
2.3	Internal sleeper walls	GOOD
2.4	External vent trenches/ducts	N/A
2.5	Cavity inspection	NOT INSPECTED

Additional Notes:

P60 - MEDIUM SIZED PATCH NEAR NORTHERN EDGE ✓ GOOD
- PORTION OF BRICKWORK MISSING ON WEST ELEVATION

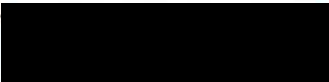
P61 - SMALL PATCH ON EASTERN EDGE ✓ GOOD.

P62 - SMALL PATCH BY SERVICE ENTRY NR. SOUTHERN EDGE ✓ GOOD

Inspection Checklist		
1.1	Underside of gas membrane	Check that the sub grade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.
1.2	Gas membrane type	Manufacturer and product specification, gauge, colour, brand/name, material batch/roll numbers, storage arrangements (protected from dirt/damage?)
1.3	Gas membrane condition	Open punctures, tears, rips, stretching? Excessive footprints/evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to join gas membrane?
1.4	Joining tape product	Product type, brand, thickness, material, width, colour? Use of double sided tape?
1.5	Lapping design	Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice?
1.6	Laps and joints sealed	Welds complete? Appropriate joining/double sided tape used?
1.7	Service entries sealed	Top hats seal arrangements fixed around service entries? Use of Jubilee clips?
2.1	Sub-floor void	Is a check possible? Void former? Gravel (type/specification)? Height of void space? Is it clear?
2.2	External wall airbricks	Numbers, size, positions as design drawing?
2.3	Internal sleeper walls	Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design?
2.4	External vent trenches/ducts	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.5	Cavity inspection	Confirm that the cavity is not blocked with debris, check that there are no rips in the membrane across the cavity and the jointing detail (if present) is fully sealed.
3.1	Active venting	Type of air supply: mechanical, natural, combined? Location/condition/number of fans and vents? Location and size of inlets? Provision of air-cleaning devices and air heaters? Supply and exhaust ductwork? Alarm provision/installation? Gas monitoring system in under-floor void?

Photographs	
No.	Description

The gas protection measures inspected:	a) Are acceptable and comply with the specification	
	b) Are acceptable but attention is drawn to issues related to item no.	
	c) Are not acceptable due to the issues related to item no.	

Engineer Name:	DAVID PERUCA	Signature:		Date:	11/04/19
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Visual Inspection of Gas Protection Measures

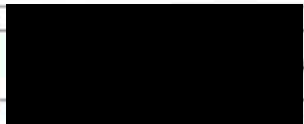
Site name:	Kestrel Park, Bursledon	Weather at time of inspection:	Partly Cloudy, Cool
Job number:	C-08162-C	Gas characteristic situation:	CS2
Plot Number(s):	65 - 66	Type of development and building/block checked:	residential / commercial / other
Date:	11/4 / 19	Building description:	Semi Det. Low Rise
Checked by:	David Pethica	Foundation type:	suspended floor / raft / other
		Gas protection type:	passive / active

No.	Item	Comments (see notes)
1 Gas membrane		
1.1	Condition of sub-grade and underside of gas membrane	NOT SEEN / INSPECTED
1.2	Gas membrane type	JUTA GFI
1.3	Gas membrane condition	Good.
1.4	Joining tape product	HEAT WELDED / DETAILS WITH PREMISEAL GMA
1.5	Lapping design	100mm MINIMUM
1.6	Laps, welds and joints seals	PREMISEAL GMA / HEAT SEALED. GOOD
1.7	Service entries seals	GOOD - TOPHAT DETAILS WITH PREMISEAL GMA
2 Passive venting		
2.1	Sub-floor void	NOT SEEN BUT PRESENT.
2.2	External wall airbricks	PRESENT @ 1 - 5m INTERVALS
2.3	Internal sleeper walls	Good.
2.4	External vent trenches/ducts	N/A
2.5	Cavity inspection	NOT SEEN.
Additional Notes:		
P65 - Small patch on NE edge of membrane ✓ P66 - Small patch on SW edge of membrane ✓		

Inspection Checklist		
1.1	Underside of gas membrane	Check that the sub grade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.
1.2	Gas membrane type	Manufacturer and product specification, gauge, colour, brand/name, material batch/roll numbers, storage arrangements (protected from dirt/damage?)
1.3	Gas membrane condition	Open punctures, tears, rips, stretching? Excessive footprints/evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?
1.4	Joining tape product	Product type, brand, thickness, material, width, colour? Use of double sided tape?
1.5	Lapping design	Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice?
1.6	Laps and joints sealed	Welds complete? Appropriate joining/double sided tape used?
1.7	Service entries sealed	Top hats seal arrangements fixed around service entries? Use of Jubilee clips?
2.1	Sub-floor void	Is a check possible? Void former? Gravel (type/specification)? Height of void space? Is it clear?
2.2	External wall airbricks	Numbers, size, positions as design drawing?
2.3	Internal sleeper walls	Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design?
2.4	External vent trenches/ducts	Located and constructed in accordance with design drawings? If open topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.5	Cavity inspection	Confirm that the cavity is not blocked with debris, check that there are no rips in the membrane across the cavity and the jointing detail (if present) is fully sealed.
3.1	Active venting	Type of air supply: mechanical, natural, combined? Location/condition/number of fans and vents? Location and size of inlets? Provision of air-cleaning devices and air heaters? Supply and exhaust ductwork? Alarm provision/installation? Gas monitoring system in under-floor void?

Photographs	
No.	Description

The gas protection measures inspected:	a) Are acceptable and comply with the specification.	✓
	b) Are acceptable but attention is drawn to issues related to item no.	
	c) Are not acceptable due to the issues related to item no.	

Engineer Name:	DAVID PETHICA	Signature:		Date:	11/04/19
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Visual Inspection of Gas Protection Measures

Site name:	Kestrel Park, Bursledon	Weather at time of inspection:	PATCHY CLOUD. COOL
Job number:	C-08162-C	Gas characteristic situation:	CS2
Plot Number(s):	P36 - 138	Type of development and building/block checked:	residential / commercial / other
Date:	11/04/19	Building description:	LOW RISE
Checked by:	David Pethica	Foundation type:	suspended floor / raft / other
		Gas protection type:	passive / active

No.	Item	Comments (see notes)
1 Gas membrane		
1.1	Condition of sub-grade and underside of gas membrane	NOT INSPECTED
1.2	Gas membrane type	JUTA GFI
1.3	Gas membrane condition	GOOD
1.4	Joining tape product	ALL JOINTS HEAT SEALED. DETAILS WITH PREMSEAL GMA
1.5	Lapping design	100mm MINIMUM
1.6	Laps, welds and joints seals	GOOD - HEAT SEALED / PREMSEAL GMA
1.7	Service entries seals	GOOD - TOPHAT DETAILS WITH PREMSEAL GMA
2 Passive venting		
2.1	Sub-floor void	PRESENT BUT NOT INSPECTED
2.2	External wall airbricks	PRESENT @ 1-3m INTERVALS
2.3	Internal sleeper walls	GOOD
2.4	External vent trenches/ducts	N/A
2.5	Cavity inspection	NOT INSPECTED

Additional Notes:

P136 - 1x SMALL PATCH NR SOUTHERN EDGE

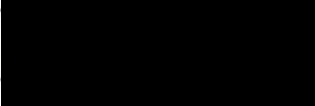
P137 - 2x SMALL PATCHES NEAR NORTHERN EDGE

P138 - GOOD ✓

Inspection Checklist		
1.1	Underside of gas membrane	Check that the sub grade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.
1.2	Gas membrane type	Manufacturer and product specification, gauge, colour, brand/name, material batch/roll numbers, storage arrangements (protected from dirt/damage?)
1.3	Gas membrane condition	Open punctures, tears, rips, stretching? Excessive footprints/evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to laid gas membrane?
1.4	Joining tape product	Product type, brand, thickness, material, width, colour? Use of double sided tape?
1.5	Lapping design	Joints lapped and sealed in accordance with manufacturer's requirements/ specification? Minimum overlap insured? Sections taped twice?
1.6	Laps and joints sealed	Welds complete? Appropriate joining/double sided tape used?
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2.1	Sub-floor void	Is a check possible? Void former? Gravel (type/specification)? Height of void space? Is it clear?
2.2	External wall airbricks	Numbers, size, positions as design drawing?
2.3	Internal sleeper walls	Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design?
2.4	External vent trenches/ducts	Located and constructed in accordance with design drawings? If open topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.5	Cavity inspection	Confirm that the cavity is not blocked with debris, check that there are no rips in the membrane across the cavity and the jointing detail (if present) is fully sealed.
3.1	Active venting	Type of air supply: mechanical, natural, combined? Location/condition/number of fans and vents? Location and size of inlets? Provision of air-cleaning devices and air heaters? Supply and exhaust ductwork? Alarm provision/Installation? Gas monitoring system in under-floor void?

Photographs	
No.	Description

The gas protection measures inspected:	a) Are acceptable and comply with the specification	☒
	b) Are acceptable but attention is drawn to issues related to item no.	☐
	c) Are not acceptable due to the issues related to item no.	☐

Engineer Name:	DAVID PETHICA	Signature:		Date:	11/04/19
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Appendix K Laboratory testing and statistical analysis

*Laboratory testing and contamination assessment for Japanese
Knotweed area*

**Jane Baird**

Hydrock Consultants Ltd
Suite 8
White Building
1-4 Cumberland Place
Southampton
Hampshire
SO15 2NP

e: JaneBaird@hydrock.com

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

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

Analytical Report Number : 18-11482

Project / Site name:	Kestrel Park, Bursledon	Samples received on:	24/09/2018
Your job number:	C-08162	Samples instructed on:	24/09/2018
Your order number:	POP24166	Analysis completed by:	01/10/2018
Report Issue Number:	1	Report issued on:	01/10/2018
Samples Analysed:	22 soil samples		

Signe

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number	1051943	1051944	1051945	1051946	1051947
Sample Reference	TS101	TS102	TS103	TS104	TS105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	0.20	0.15	0.30	0.30
Date Sampled	21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	9.4	8.9
Total mass of sample received	kg	0.001	NONE	1.3	1.4

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.3	7.1	7.0	6.8	6.8
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.015	0.015	0.013	0.012	0.014
Fraction Organic Carbon (FOC)	N/A	0.001	NONE	0.012	0.011	0.010	0.012	0.022

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.25	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.4	0.37	0.40	0.42	< 0.05
Pyrene	mg/kg	0.05	MCERTS	1.2	0.32	0.39	0.34	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.54	< 0.05	0.26	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.90	< 0.05	0.34	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.50	< 0.05	0.29	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.64	< 0.05	0.25	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.56	< 0.05	0.30	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.28	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.33	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	6.59	< 0.80	2.23	< 0.80	< 0.80
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Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number	1051943				1051944	1051945	1051946	1051947
Sample Reference	TS101				TS102	TS103	TS104	TS105
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10				0.20	0.15	0.30	0.30
Date Sampled	21/09/2018				21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.6	9.5	13	7.9	5.4
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.42	0.37	0.30	0.38	0.26
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.3	0.4	0.6	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.4	< 0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	24	24	22	25	12
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	25	22	25	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	23	24	20	20	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	30	30	30	26	28
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	9.1	12	9.8	8.5	6.2
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24	27	33	30	19
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	40	31	33	38	21

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number	1051948	1051949	1051950	1051951	1051952
Sample Reference	TS106	TS107	TS108	TS109	TS110
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20	0.20	0.10	0.20	0.10
Date Sampled	21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	8.5	6.9
Total mass of sample received	kg	0.001	NONE	1.3	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.8	6.0	6.1	6.2	6.8
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.023	0.029	0.010	0.043	0.063
Fraction Organic Carbon (FOC)	N/A	0.001	NONE	0.010	0.015	0.023	0.021	0.023

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.80	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.19	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.55	< 0.05	1.3	< 0.05	0.38
Pyrene	mg/kg	0.05	MCERTS	0.47	< 0.05	1.1	< 0.05	0.36
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.25	< 0.05	0.38	< 0.05	0.22
Chrysene	mg/kg	0.05	MCERTS	0.34	< 0.05	0.57	< 0.05	0.27
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.44	< 0.05	0.41	< 0.05	0.27
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.28	< 0.05	0.45	< 0.05	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.48	< 0.05	0.41	< 0.05	0.27
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.27	< 0.05	0.23	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.29	< 0.05	0.28	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.37	< 0.80	6.06	< 0.80	1.96
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Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number				1051948	1051949	1051950	1051951	1051952
Sample Reference				TS106	TS107	TS108	TS109	TS110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.10	0.20	0.10
Date Sampled				21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.4	9.6	5.2	7.4	7.5
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.20	0.27	0.19	0.26	0.36
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3	0.4	0.3	0.8	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	14	17	10	15	16
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	14	17	10	15	16
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	19	32	26	38
Lead (aqua regia extractable)	mg/kg	1	MCERTS	19	24	25	30	69
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	5.6	5.2	5.0	7.8	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	20	34	15	21	23
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	16	20	26	27	39

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number	1051953	1051954	1051955	1051956	1051957
Sample Reference	TS111	TS112	JK101	JK102	JK103
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20	0.30	0.10	0.10	0.10
Date Sampled	21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	5.7	5.9
Total mass of sample received	kg	0.001	NONE	1.3	1.3
				0.99	0.92
				0.92	0.82

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.7	6.8	5.6	6.2	5.9
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.017	0.0095	0.020	0.025	0.014
Fraction Organic Carbon (FOC)	N/A	0.001	NONE	0.024	0.020	0.066	0.056	0.065

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.77	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.23	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.1	0.47	0.48	0.37	0.51
Pyrene	mg/kg	0.05	MCERTS	0.96	0.44	0.42	0.35	0.45
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.40	0.24	0.20	0.17	0.21
Chrysene	mg/kg	0.05	MCERTS	0.39	0.28	0.32	0.27	0.34
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.39	0.27	0.28	0.21	0.33
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.32	0.30	0.24	0.25	0.20
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.40	0.33	0.26	0.22	0.29
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.21	0.19	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.24	0.25	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	5.38	2.77	2.20	1.84	2.33
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Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number				1051953	1051954	1051955	1051956	1051957
Sample Reference				TS111	TS112	JK101	JK102	JK103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.30	0.10	0.10	0.10
Date Sampled				21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.7	7.6	6.9	10	7.9
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.15	0.22	0.23	0.27	0.16
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.4	1.0	0.4	1.0
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.5	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	11	16	17	37	26
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11	16	17	37	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	22	31	70	74	33
Lead (aqua regia extractable)	mg/kg	1	MCERTS	28	31	100	180	84
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	9.2	8.1	11	20	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	20	23	20	25	31
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	24	34	99	140	39

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	3.9	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	22	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4



Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number	1051958	1051959	1051960	1051961	1051962
Sample Reference	JK104	JK105	JK106	JK107	JK108
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	0.10	0.10	0.10	0.10
Date Sampled	21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	6.6	5.7
Total mass of sample received	kg	0.001	NONE	1.0	0.99
				0.93	0.97

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.0	5.2	6.8	7.3	6.7
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.023	0.026	0.013	0.018	0.023
Fraction Organic Carbon (FOC)	N/A	0.001	NONE	0.082	0.056	0.033	0.037	0.043

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.44	2.1	0.90
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.11	0.21	0.28
Fluoranthene	mg/kg	0.05	MCERTS	0.39	0.36	1.1	3.6	2.5
Pyrene	mg/kg	0.05	MCERTS	0.37	0.29	1.0	2.8	2.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.16	0.20	0.46	1.5	1.2
Chrysene	mg/kg	0.05	MCERTS	0.28	0.22	0.61	2.1	1.2
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.26	0.22	0.53	2.0	1.2
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.18	0.21	0.44	1.5	1.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.26	0.22	0.61	1.6	1.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.25	0.79	0.75
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.30	0.25
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.34	0.91	0.99

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1.90	1.72	5.90	19.7	14.0
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Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number				1051958	1051959	1051960	1051961	1051962
Sample Reference				JK104	JK105	JK106	JK107	JK108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.10	0.10	0.10	0.10
Date Sampled				21/09/2018	21/09/2018	21/09/2018	21/09/2018	21/09/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.4	11	29	42	41
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.33	0.31	1.8	3.1	3.2
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.9	2.3	2.8	2.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	< 0.2	1.2	1.9	2.1
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	260	24	28	37	38
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	260	25	29	38	38
Copper (aqua regia extractable)	mg/kg	1	MCERTS	120	54	240	200	230
Lead (aqua regia extractable)	mg/kg	1	MCERTS	170	86	270	320	490
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	21	10	36	58	55
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	29	40	49	59	71
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	50	510	920	550

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	4.7	2.5
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	11	19
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	35	88
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	38

Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number				1051963	1051964			
Sample Reference				JK109	JK110			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.10	0.10			
Date Sampled				21/09/2018	21/09/2018			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	6.5	4.6			
Total mass of sample received	kg	0.001	NONE	0.86	1.1			

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected			
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	7.2			
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1			
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.022	0.014			
Fraction Organic Carbon (FOC)	N/A	0.001	NONE	0.041	0.028			

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0			
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Phenanthrene	mg/kg	0.05	MCERTS	1.0	0.55			
Anthracene	mg/kg	0.05	MCERTS	0.34	0.12			
Fluoranthene	mg/kg	0.05	MCERTS	2.6	1.7			
Pyrene	mg/kg	0.05	MCERTS	2.3	1.5			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	0.69			
Chrysene	mg/kg	0.05	MCERTS	1.2	0.89			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.3	0.87			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.98	0.57			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.4	0.90			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.72	0.42			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.29	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	0.52			

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	14.3	8.71			
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Analytical Report Number: 18-11482

Project / Site name: Kestrel Park, Bursledon

Your Order No: POP24166

Lab Sample Number				1051963	1051964			
Sample Reference				JK109	JK110			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.10	0.10			
Date Sampled				21/09/2018	21/09/2018			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	33	13			
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	2.6	0.89			
Boron (water soluble)	mg/kg	0.2	MCERTS	2.3	1.2			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	3.1	1.0			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	33	19			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	34	19			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	340	100			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	690	250			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	68	25			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	63	31			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	550	260			

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0			
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0			
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0			
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0			
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	4.8	< 2.0			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	13	< 10			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	120	17			
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	75	< 8.4			



Analytical Report Number : 18-11482

Project / Site name: Kestrel Park, Bursledon

* 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 topsoil/loam 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 *
1051943	TS101	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051944	TS102	None Supplied	0.20	Brown loam and sand with gravel and vegetation.
1051945	TS103	None Supplied	0.15	Brown loam and sand with gravel and vegetation.
1051946	TS104	None Supplied	0.30	Brown loam and sand with gravel and vegetation.
1051947	TS105	None Supplied	0.30	Brown loam and sand with gravel and vegetation.
1051948	TS106	None Supplied	0.20	Brown loam and sand with gravel and vegetation.
1051949	TS107	None Supplied	0.20	Brown loam and sand with gravel and vegetation.
1051950	TS108	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051951	TS109	None Supplied	0.20	Brown loam and sand with gravel and vegetation.
1051952	TS110	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051953	TS111	None Supplied	0.20	Brown loam and sand with gravel and vegetation.
1051954	TS112	None Supplied	0.30	Brown loam and sand with gravel and vegetation.
1051955	JK101	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051956	JK102	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051957	JK103	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051958	JK104	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051959	JK105	None Supplied	0.10	Brown loam and sand with gravel and vegetation.
1051960	JK106	None Supplied	0.10	Light brown loam and clay with gravel and vegetation.
1051961	JK107	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
1051962	JK108	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
1051963	JK109	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
1051964	JK110	None Supplied	0.10	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 18-11482

Project / Site name: Kestrel Park, Bursledon

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
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	L038-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
Fraction of Organic Carbon in soil	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L009-PL	D	NONE
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE

Analytical Report Number : 18-11482

Project / Site name: Kestrel Park, Bursledon

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS

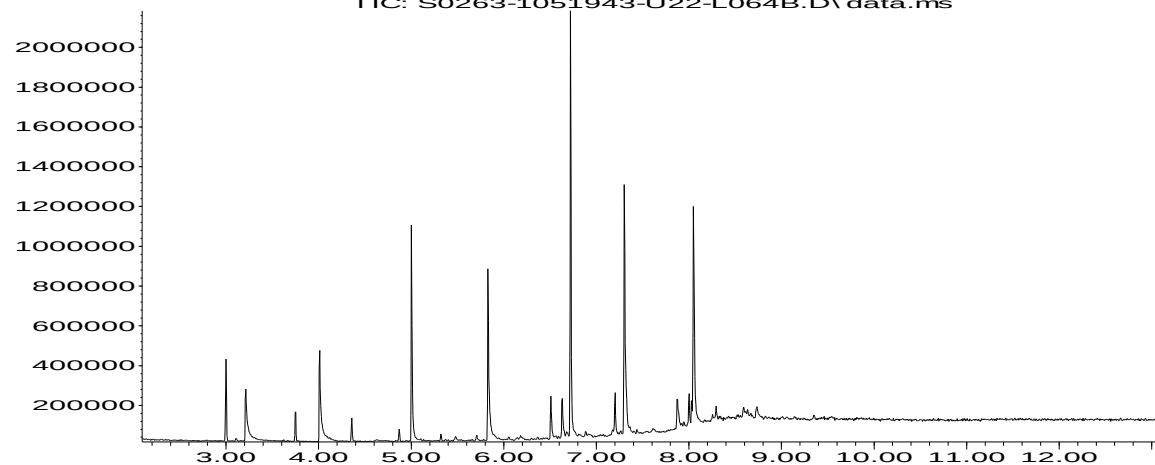
For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

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

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

Abundance

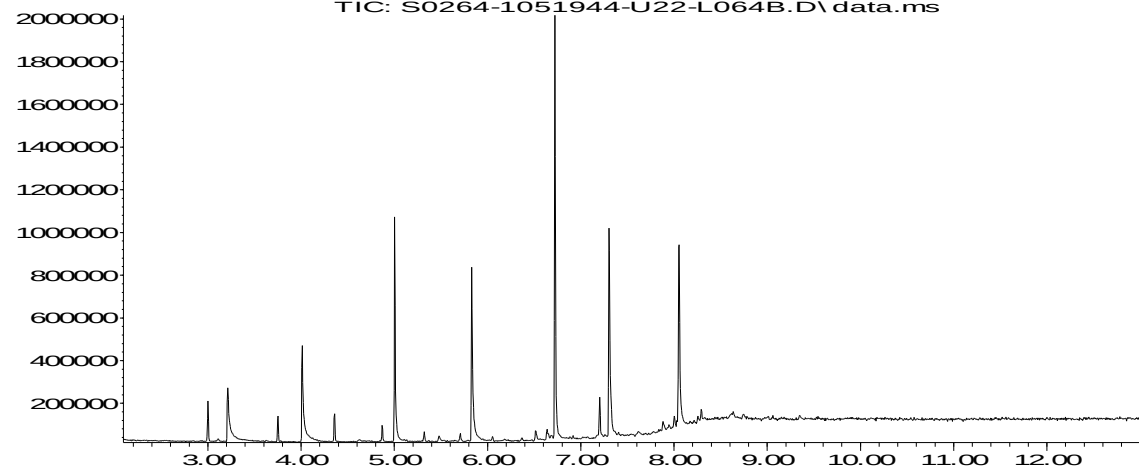
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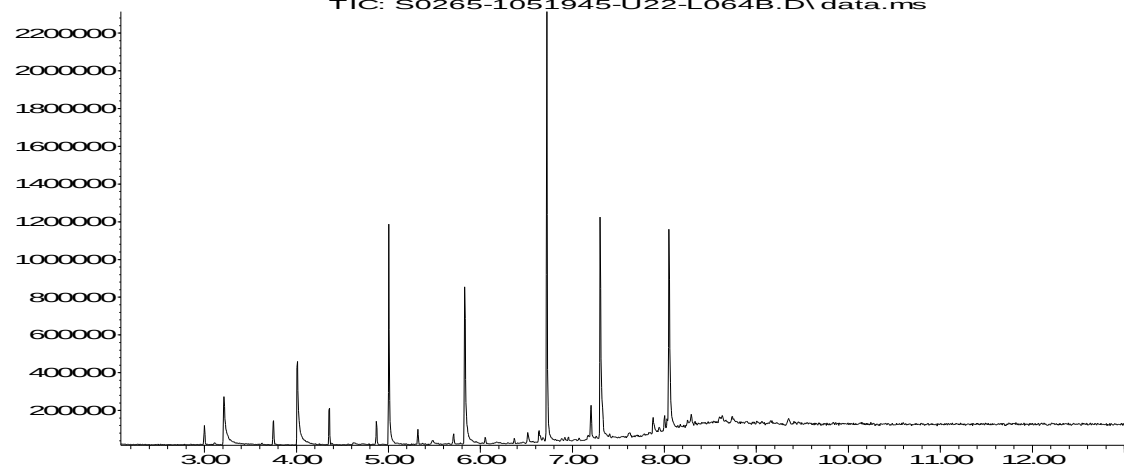
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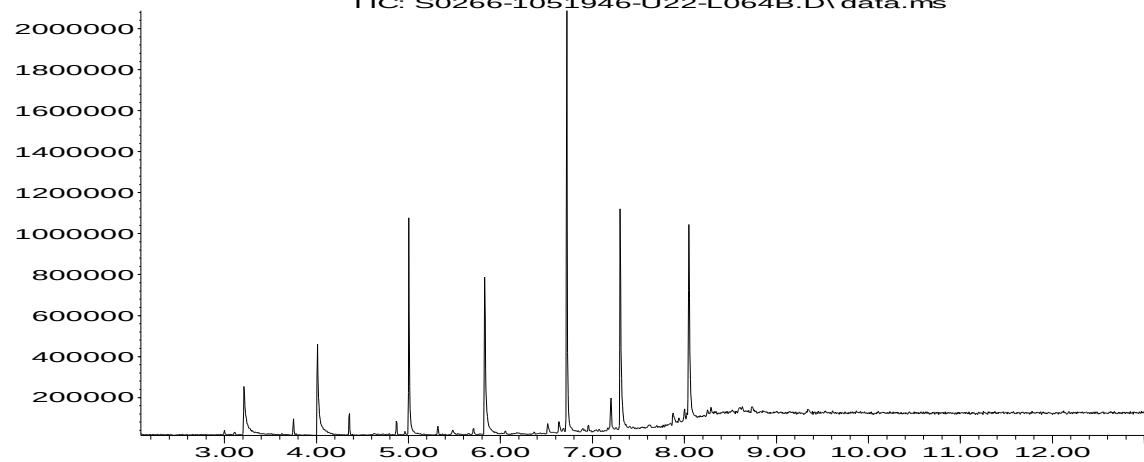
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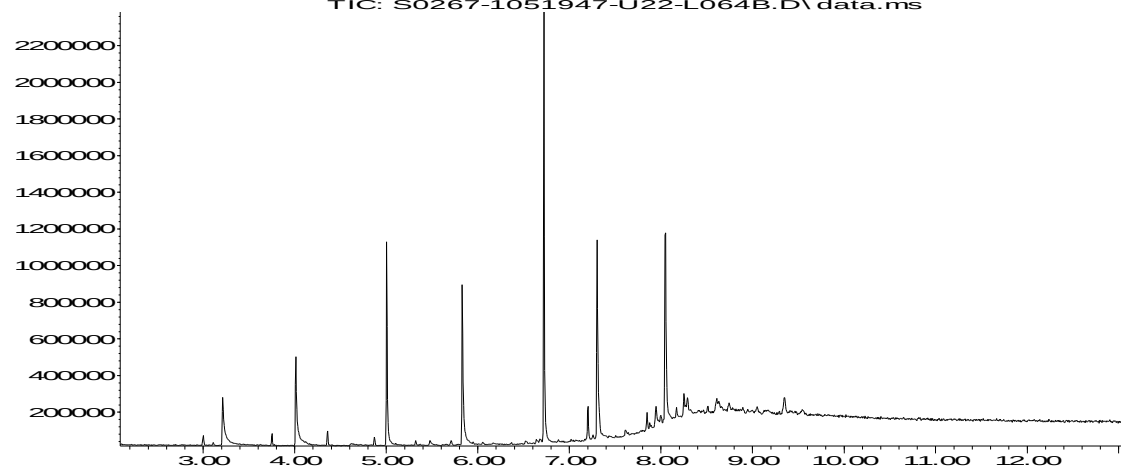
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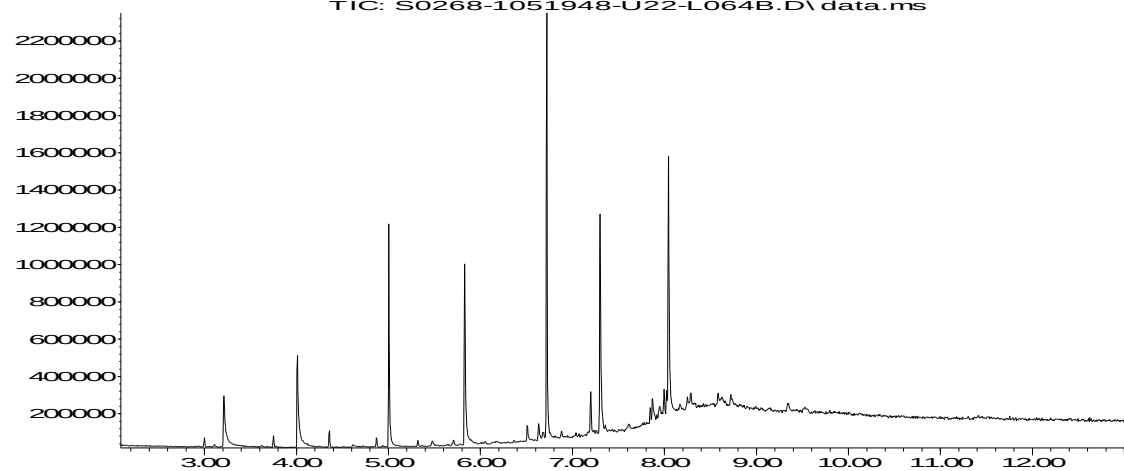
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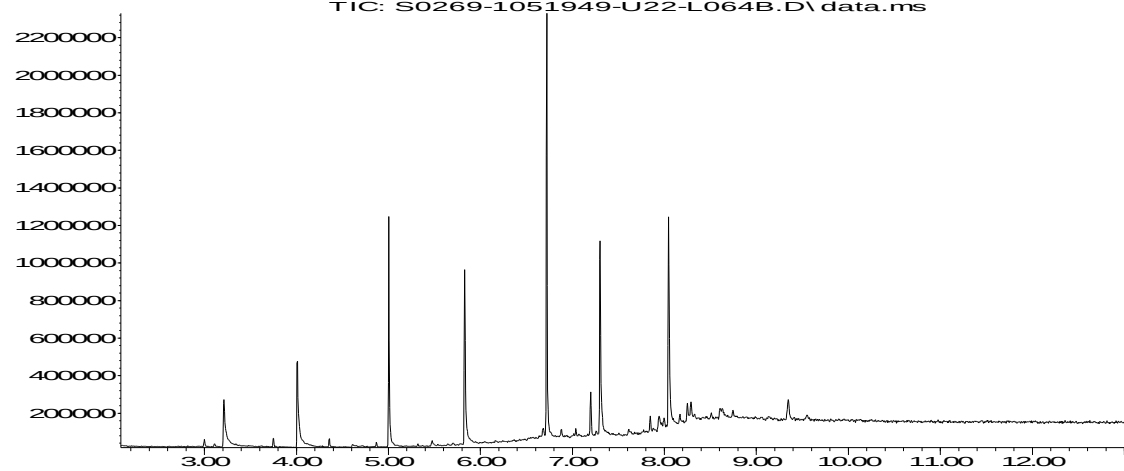
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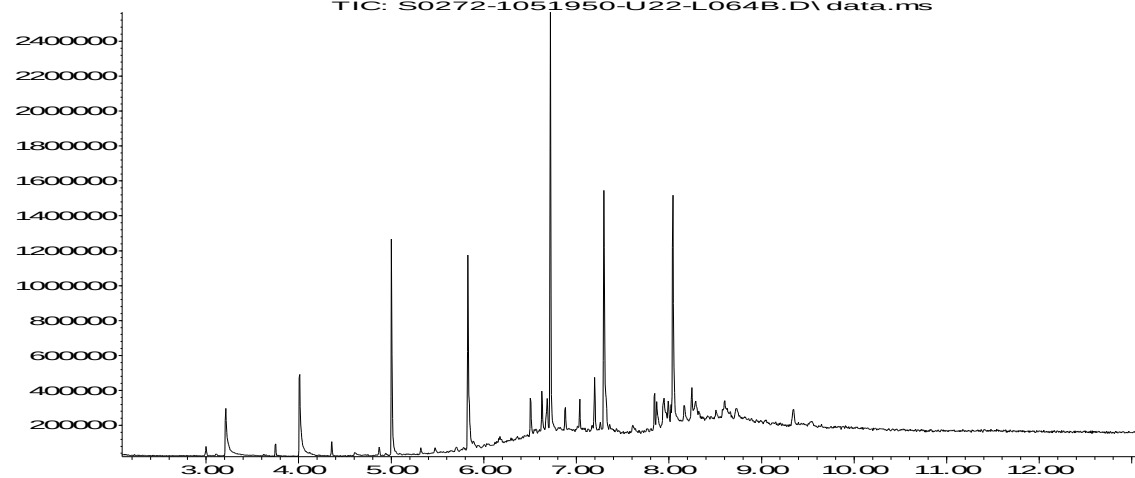
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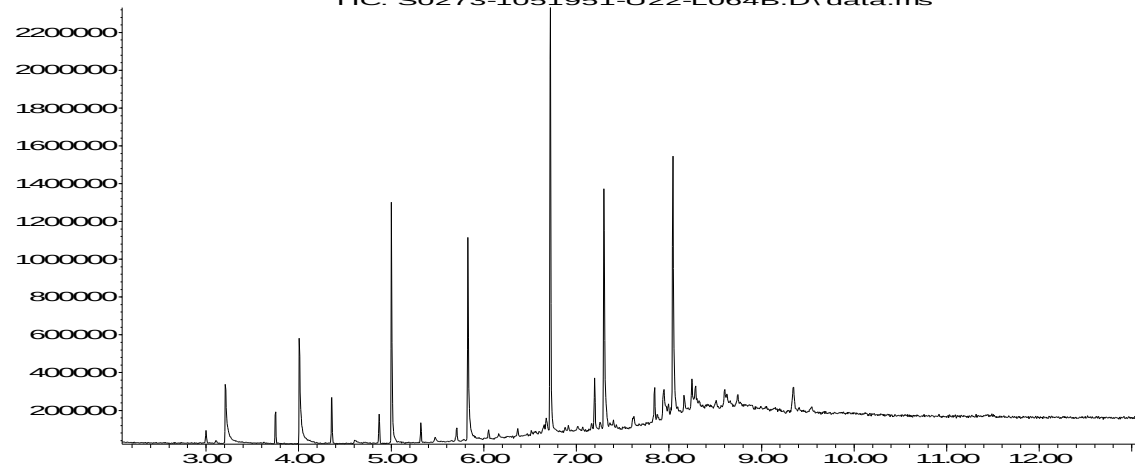
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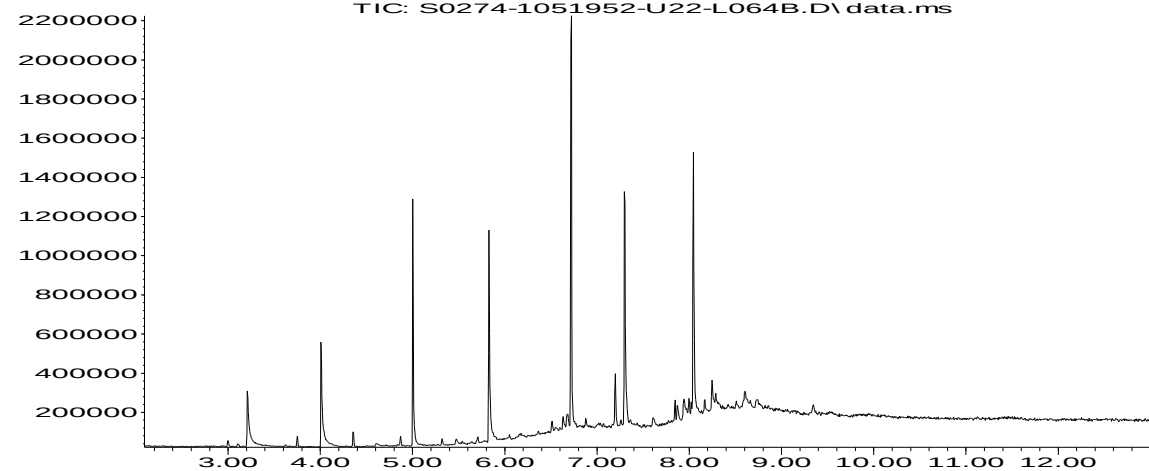
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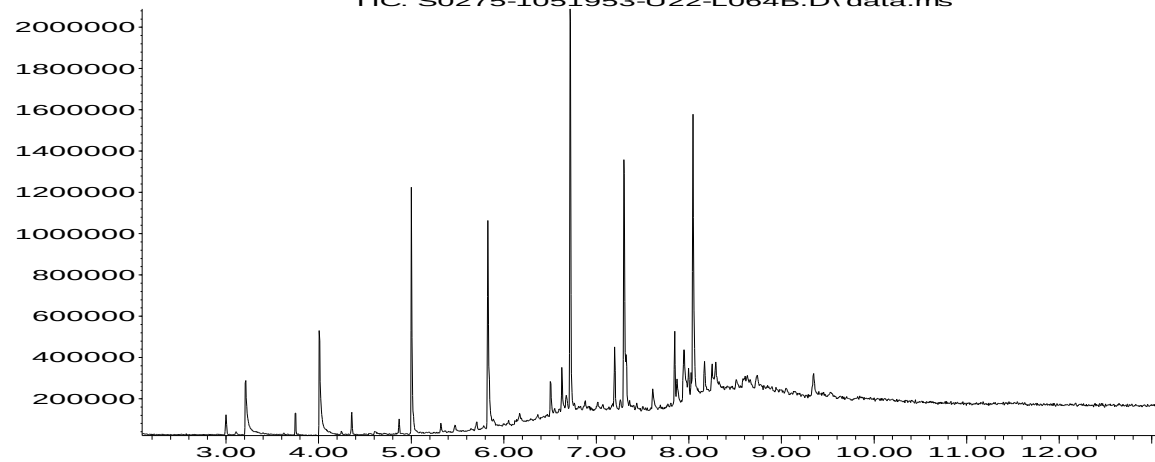
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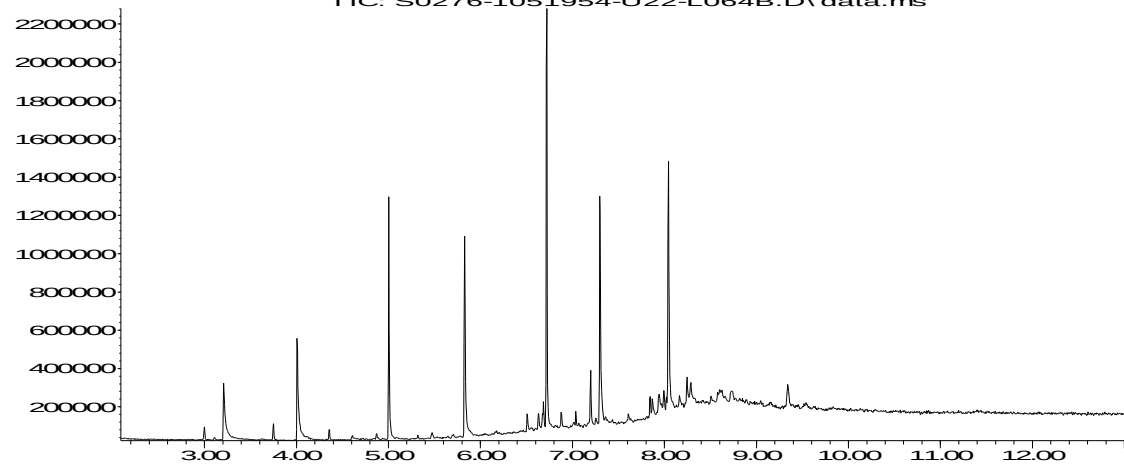
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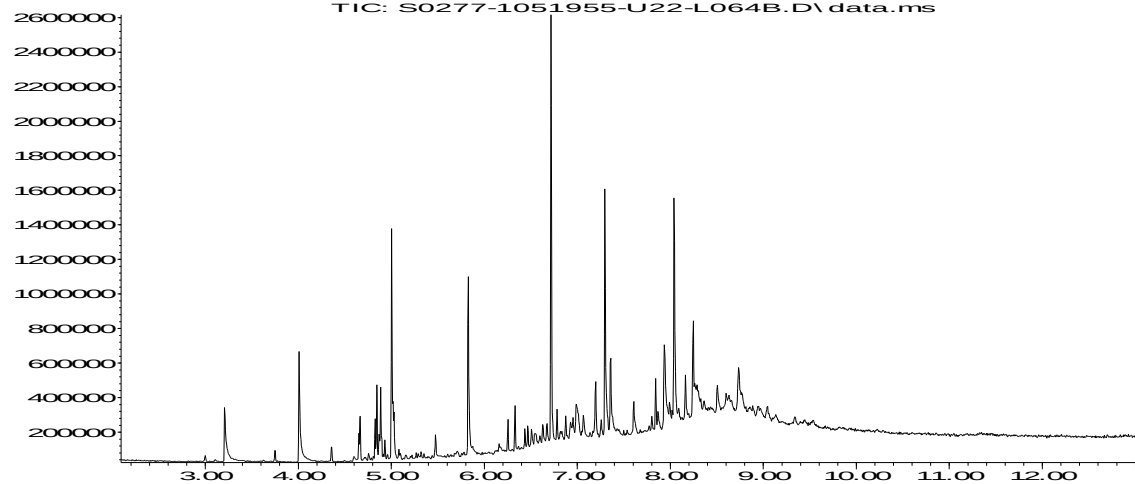
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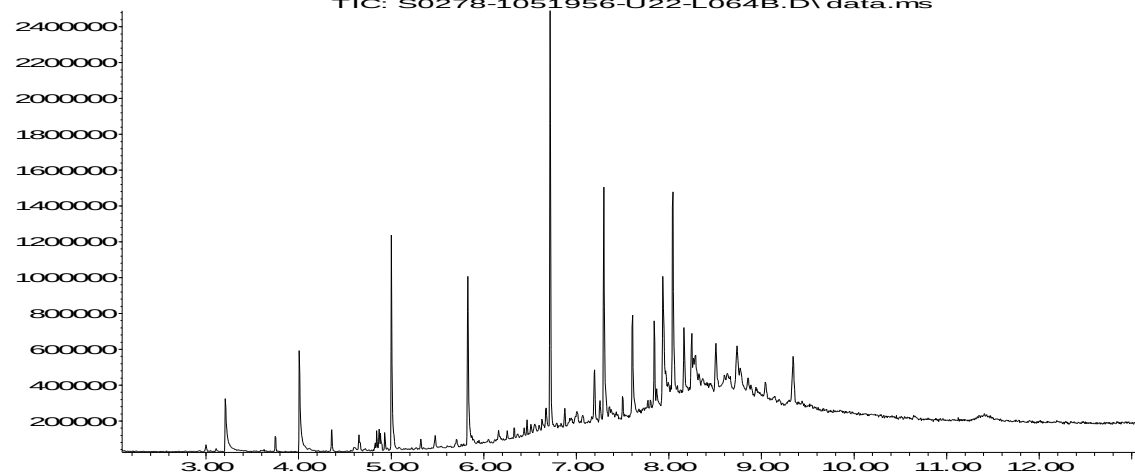
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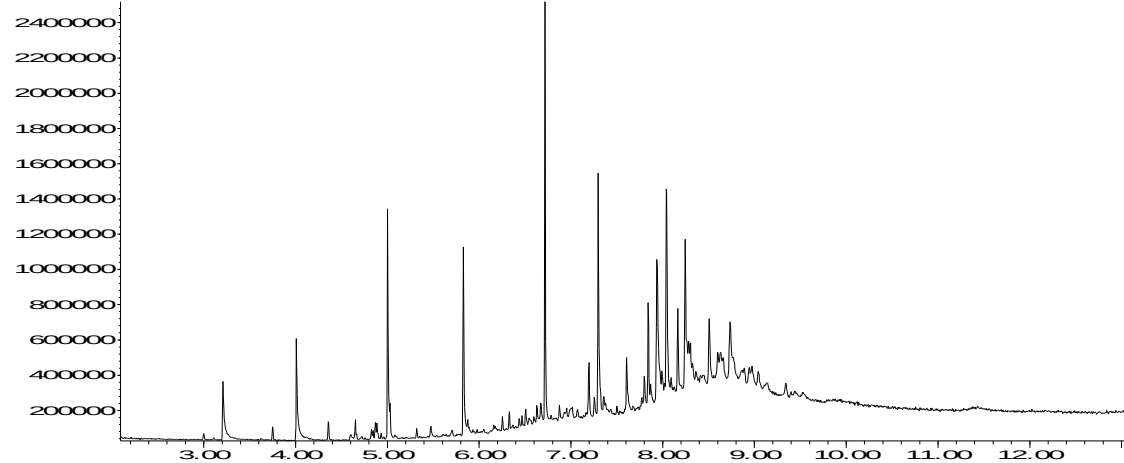
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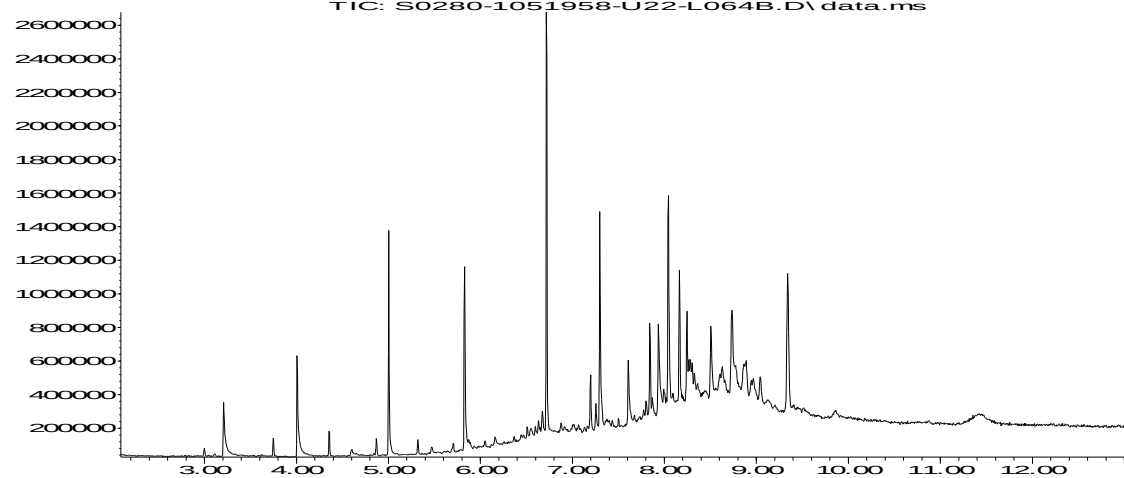
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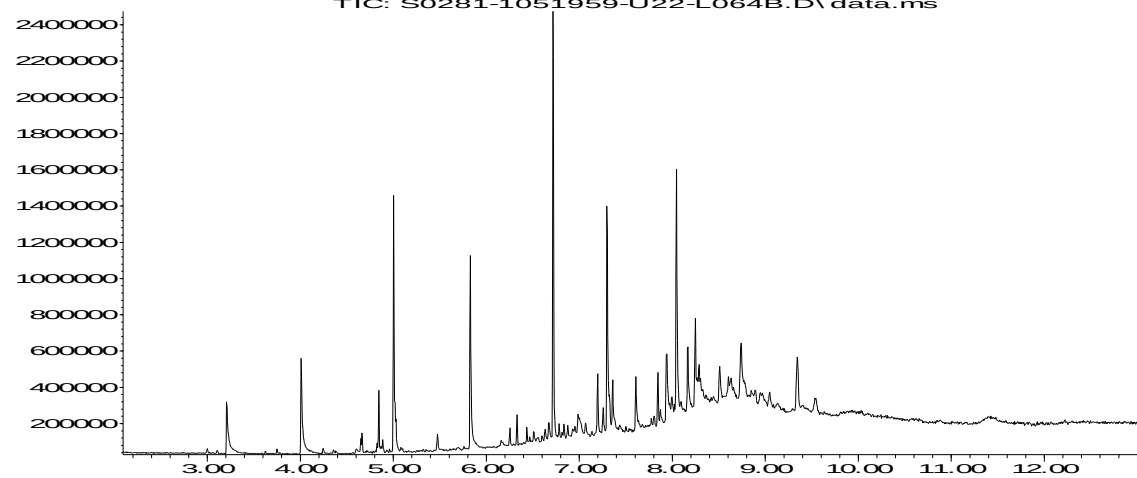
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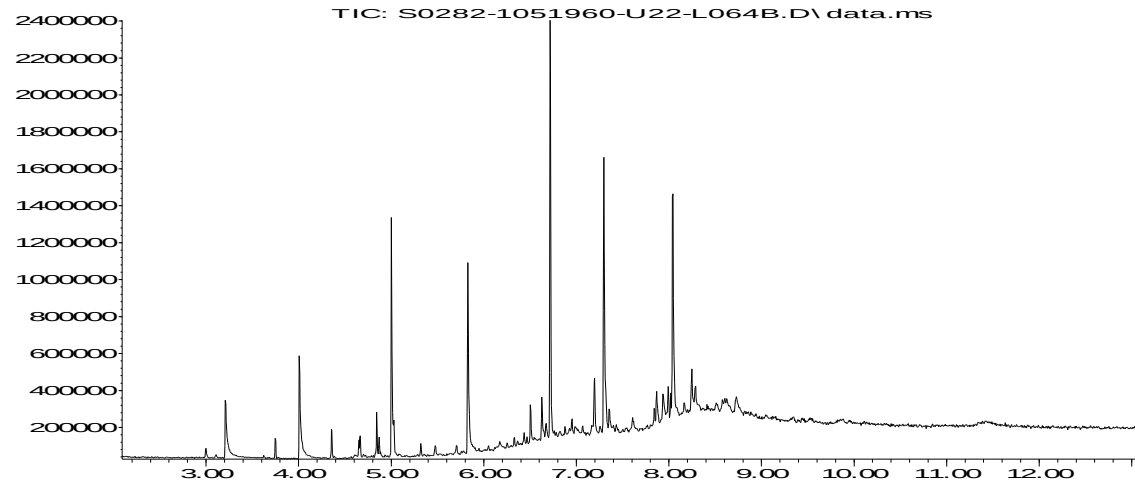
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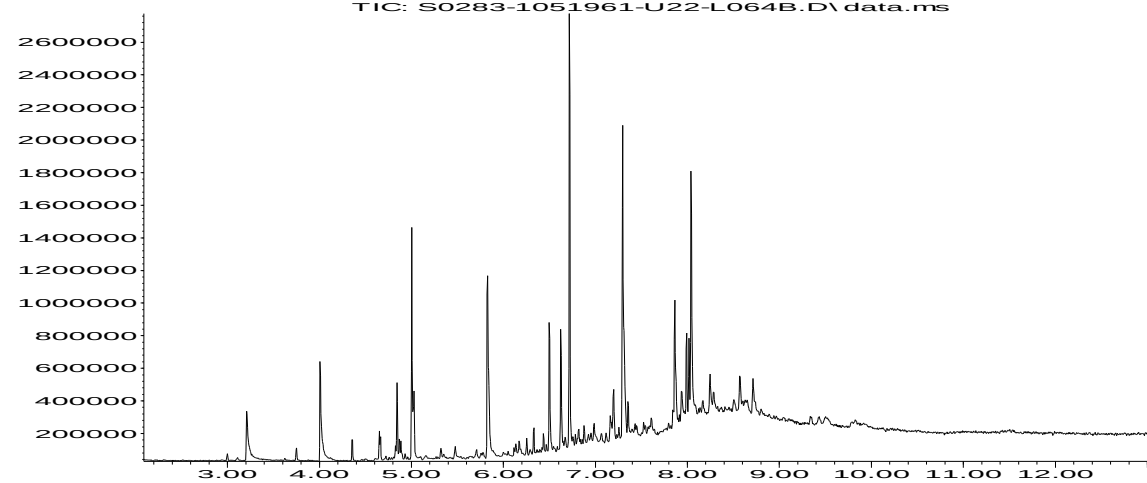
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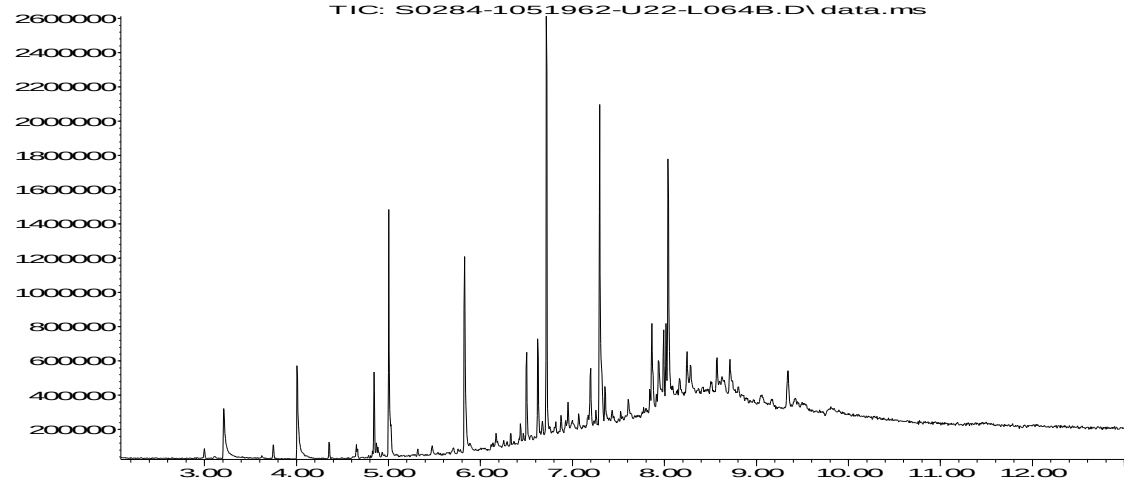
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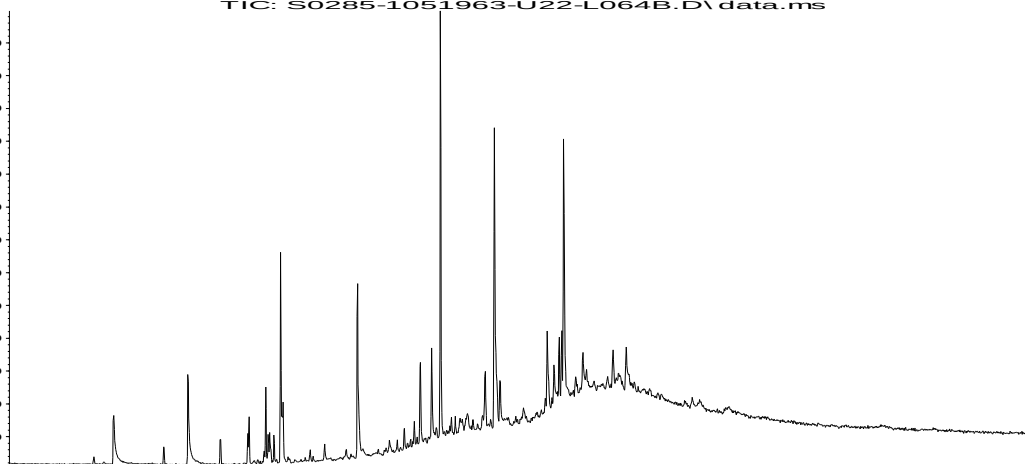
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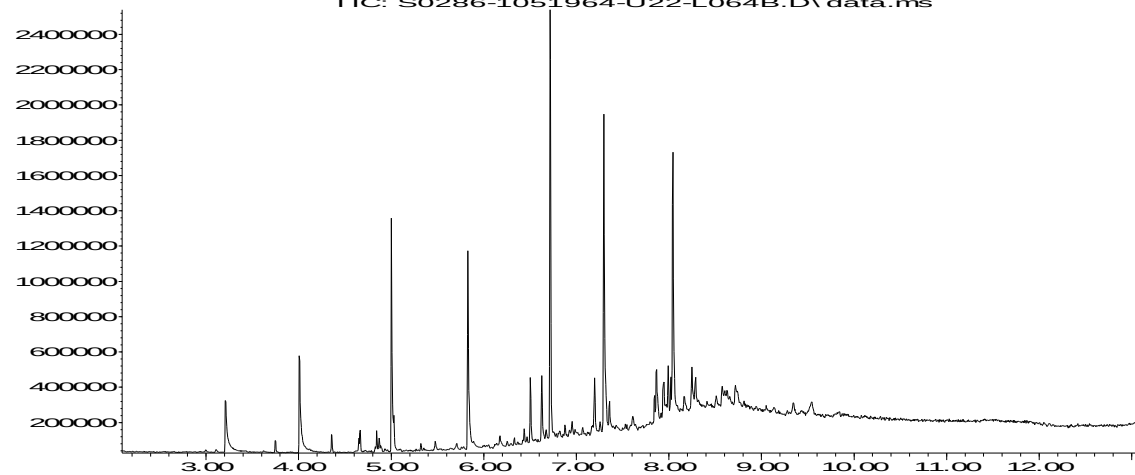
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Abundance

TIC: S0286-1051964-U22-L064B.D\data.ms



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Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated							Location & Depth	JK101	JK102	JK103	JK104	JK105	JK106	JK107	JK108	JK109	JK110
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Arsenic	1	10	6.9	42	0	79	POTENTIALLY SUITABLE FOR USE	6.9	10	7.9	9.4	11	29	42	41	33	13
Beryllium	0.06	10	0.16	3.2	0	92	POTENTIALLY SUITABLE FOR USE	0.23	0.27	0.16	0.33	0.31	1.8	3.1	3.2	2.6	0.89
Boron	0.2	10	0.4	2.8	0	21000	POTENTIALLY SUITABLE FOR USE	1	0.4	1	0.7	0.9	2.3	2.8	2.4	2.3	1.2
Cadmium	0.2	10	0.2	3.1	0	120	POTENTIALLY SUITABLE FOR USE	0.2	0.5	0.2	0.5	0.2	1.2	1.9	2.1	3.1	1
Chromium (III)	1	10	17	260	0	1500	POTENTIALLY SUITABLE FOR USE	17	37	26	260	24	28	37	38	33	19
Chromium (VI)	1.2	10	1.2	1.2	0	7.7	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	10	33	340	0	12000	POTENTIALLY SUITABLE FOR USE	70	74	33	120	54	240	200	230	340	100
Lead	1	10	84	690	1	630	POTENTIALLY SUITABLE FOR USE	100	180	84	170	86	270	320	490	690	250
Mercury, inorganic	0.3	10	0.3	0.7	0	470	POTENTIALLY SUITABLE FOR USE	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.3
Nickel	1	10	10	68	0	290	POTENTIALLY SUITABLE FOR USE	11	20	11	21	10	36	58	55	68	25
Selenium	1	10	1	1	0	1400	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1
Vanadium	1	10	20	71	0	2000	POTENTIALLY SUITABLE FOR USE	20	25	31	29	40	49	59	71	63	31
Zinc	1	10	39	920	0	81000	POTENTIALLY SUITABLE FOR USE	99	140	39	150	50	510	920	550	550	260
Cyanide (free)	1	10	1	1	0	1600	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1
Phenol (total)	1	10	1	1	0	3200	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1
Acenaphthene	0.05	10	0.05	0.05	0	15000	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Acenaphthylene	0.05	10	0.05	0.05	0	15000	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Anthracene	0.05	10	0.05	0.34	0	74000	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.11	0.21	0.28	0.34	0.12
Benzo(a)anthracene	0.05	10	0.16	1.5	0	18	POTENTIALLY SUITABLE FOR USE	0.2	0.17	0.21	0.16	0.2	0.46	1.5	1.2	1.2	0.69
Benzo(a)pyrene	0.05	10	0.22	1.6	0	2.6	POTENTIALLY SUITABLE FOR USE	0.26	0.22	0.29	0.26	0.22	0.61	1.6	1.4	1.4	0.9
Benzo(b)fluoranthene	0.05	10	0.21	2	0	18	POTENTIALLY SUITABLE FOR USE	0.28	0.21	0.33	0.26	0.22	0.53	2	1.2	1.3	0.87
Benzo(ghi)perylene	0.05	10	0.05	1.1	0	120	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.34	0.91	0.99	1.1	0.52
Benzo(k)fluoranthene	0.05	10	0.18	1.5	0	26	POTENTIALLY SUITABLE FOR USE	0.24	0.25	0.2	0.18	0.21	0.44	1.5	1.1	0.98	0.57
Chrysene	0.05	10	0.22	2.1	0	26	POTENTIALLY SUITABLE FOR USE	0.32	0.27	0.34	0.28	0.22	0.61	2.1	1.2	1.2	0.89
Dibenz(a,h)anthracene	0.05	10	0.05	0.3	0	2.32	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.3	0.25	0.29	0.05
Fluoranthene	0.05	10	0.36	3.6	0	3100	POTENTIALLY SUITABLE FOR USE	0.48	0.37	0.51	0.39	0.36	1.1	3.6	2.5	2.6	1.7
Fluorene	0.05	10	0.05	0.05	0	9900	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Indeno(1,2,3,cd)pyrene	0.05	10	0.05	0.79	0	11	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.25	0.79	0.75	0.72	0.42
Naphthalene	0.05	10	0.05	0.33	0	4200	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.33	0.05	0.05	0.05
Phenanthrene	0.05	10	0.05	2.1	0	3100	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.44	2.1	0.9	1	0.55
Pyrene	0.05	10	0.29	2.8	0	7400	POTENTIALLY SUITABLE FOR USE	0.42	0.35	0.45	0.37	0.29	1	2.8	2.2	2.3	1.5
Asbestos identified	Y/N							N	N	N	N	N	N	N	N	N	N
FOC (dimensionless)	0.001	(mean)						0.066	0.056	0.065	0.082	0.056	0.033	0.037	0.043	0.041	0.028
SOM (calculated)	8.74%	(mean)						11.38%	9.65%	11.21%	14.14%	9.65%	5.69%	6.38%	7.41%	7.07%	4.83%
pH (su)	6.4	(mean)						5.6	6.2	5.9	6	5.2	6.8	7.3	6.7	7.1	7.2
Risk parameter: Human health - POS resi (6%SOM) Data set: JAPANESE KNOTWEED AREA Client: Taylor Wimpey UK Ltd Site: Kestrel Park, Bursledon Job no.: C-08162-C Lab. report no(s).: 18-11482-1								Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC) or +ve asbestos ID. MG denotes Made Ground NAT denotes natural ground TS denotes Topsoil									

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated								Location & Depth	JK101	JK102	JK103	JK104	JK105	JK106	JK107	JK108	JK109	JK110
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Arsenic	1	10	6.9	42	0	250	POTENTIALLY SUITABLE FOR USE	6.9	10	7.9	9.4	11	29	42	41	33	13	
Boron	0.2	10	0.4	2.8	0	3	POTENTIALLY SUITABLE FOR USE	1	0.4	1	0.7	0.9	2.3	2.8	2.4	2.3	1.2	
Chromium (III)	1	10	17	260	0	400	POTENTIALLY SUITABLE FOR USE	17	37	26	260	24	28	37	38	33	19	
Chromium (VI)	1.2	10	1.2	1.2	0	25	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Copper	1	10	33	340	4	135	FURTHER ASSESSMENT REQUIRED	70	74	33	120	54	240	200	230	340	100	
Nickel	1	10	10	68	0	75	POTENTIALLY SUITABLE FOR USE	11	20	11	21	10	36	58	55	68	25	
Zinc	1	10	39	920	4	300	FURTHER ASSESSMENT REQUIRED	99	140	39	150	50	510	920	550	550	260	
	Mean																	
pH (su)	6.4							5.6	6.2	5.9	6	5.2	6.8	7.3	6.7	7.1	7.2	
Risk parameter: Plant life pH 7 Data set: JAPANESE KNOTWEED AREA Client: Taylor Wimpey UK Ltd Site: Kestrel Park, Bursledon Job no.: C-08162-C Lab. report no(s): 18-11482-1								Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground SS denotes Subsoil NAT denotes natural ground TS denotes Topsoil										

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated								TS101	TS102	TS103	TS104	TS105	TS106	TS107	TS108	TS109	TS110	TS111	TS112
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	US ₉₅	0.1	0.2	0.15	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.3
Arsenic	1	12	5.2	13	0	37	10.47842	7.6	9.5	13	7.9	5.4	6.4	9.6	5.2	7.4	7.5	6.7	7.6
Boron	0.06	12	0.13	0.42	0	31	0.389248	0.42	0.37	0.3	0.36	0.26	0.2	0.27	0.19	0.26	0.36	0.15	0.22
Bromine	0.2	12	0.3	0.8	0	360	0.566477	0.8	0.3	0.4	0.6	0.5	0.3	0.4	0.3	0.6	0.7	0.5	0.4
Cadmium	0.2	12	0.2	0.4	0	14	0.303294	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Chromium (III)	1	12	10	25	0	890	23.8662	24	24	22	25	12	14	17	10	15	16	11	16
Chromium (VI)	1.2	12	1.2	1.2	0	6.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	12	15	38	0	2500	32.40897	23	24	20	20	15	19	22	19	28	38	22	31
Cobalt	1	12	15	68	0	265	46.57832	50	30	30	26	28	19	24	25	30	68	26	31
Mercury inorganic	0.3	12	0.3	0.3	0	170	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Nickel	1	12	5	12	0	130	10.98612	9.1	12	9.8	9.5	6.2	5.6	5.2	5	7.8	11	9.2	8.1
Selenium	1	12	1	1	0	360	1	1	1	1	1	1	1	1	1	1	1	1	1
Vanadium	1	12	15	34	0	410	31.43113	24	27	33	19	20	19	24	21	23	23	22	23
Zinc	1	12	15	40	0	3800	39.1139	40	31	33	38	21	18	20	28	27	38	24	34
Cyanide (free)	1	12	1	1	0	190	1	1	1	1	1	1	1	1	1	1	1	1	1
Phenol (total)	1	12	1	1	0	290	1	1	1	1	1	1	1	1	1	1	1	1	1
Acenaphthene	0.05	12	0.05	0.05	0	220	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Acenaphthylene	0.05	12	0.05	0.05	0	180	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Anthracene	0.05	12	0.05	0.05	0	2400	0.156785	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benzo(a)anthracene	0.05	12	0.05	0.05	0	4.2	0.421921	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benzo(a)pyrene	0.05	12	0.05	0.05	0	1.5	0.491923	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benzo(b)fluoranthene	0.05	12	0.05	0.05	0	7.5	0.457414	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benzo(k)fluoranthene	0.05	12	0.05	0.05	0	64	0.295222	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benzo(ghi)perylene	0.05	12	0.05	0.05	0	12	0.43138	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Chrysene	0.05	12	0.05	0.05	0	7.7	0.607499	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Dibenz(a,h)anthracene	0.05	12	0.05	0.05	0	1.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Fluoranthene	0.05	12	0.05	1.4	0	290	1.139303	1.4	0.37	0.4	0.42	0.05	0.55	0.05	1.3	0.05	0.39	1.1	0.47
Fluorene	0.05	12	0.05	0.05	0	170	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Indeno(1,2,3-cd)pyrene	0.05	12	0.05	0.05	0	4.3	0.251933	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Naphthalene	0.05	12	0.05	0.05	0	2.3	0.18	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Phenanthrene	0.05	12	0.05	0.8	0	97	0.546873	0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.8	0.05	0.05	0.77	0.05
Pyrene	0.05	12	0.05	1.2	0	620	0.980552	1.2	0.32	0.39	0.34	0.05	0.47	0.05	1.1	0.05	0.36	0.96	0.44
Asbestos identified	N/A						N	N	N	N	N	N	N	N	N	N	N	N	N
PCB (dioxin-like)	0.001 (mean)						0.012	0.011	0.011	0.011	0.012	0.011	0.011	0.011	0.011	0.011	0.011	0.011	0.011
TCM (calculated)	2.92% (mean)						2.07%	1.80%	1.72%	1.72%	2.07%	1.72%	1.72%	2.07%	1.72%	2.07%	1.72%	2.07%	1.72%
PF (SD)	6.7 (mean)						7.3	7.1	7	6.8	6.8	6.8	6.8	6	6.1	6.2	6.9	6.7	6.8

Risk parameter: Human health - residential with plant uptake (1% SOM)
 Data set: TOPSOIL
 Client: Taylor Wimpey UK Ltd
 Site: Kestrel Park, Bursledon
 Job no.: C-08162-C
 Lab. report no(s): 18-11482-1

Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC) or +ve asbestos ID. MG denotes Made Ground, NAT denotes natural ground, SS denotes Subsoil, TS denotes Topsoil

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated								TS101	TS102	TS103	TS104	TS105	TS106	TS107	TS108	TS109	TS110	TS111	TS112
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	US ₉₅	0.1	0.2	0.15	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.3
Arsenic	1	12	5.2	13	0	250	10.47842	7.6	9.5	13	7.9	5.4	6.4	9.6	5.2	7.4	7.5	6.7	7.6
Boron	0.2	12	0.3	0.8	0	9	0.566477	0.6	0.9	0.4	0.6	0.5	0.3	0.4	0.9	0.8	0.7	0.5	0.4
Chromium (III)	1	12	10	25	0	400	23.8662	24	24	22	25	12	14	17	10	15	16	11	16
Chromium (VI)	1.2	12	1.2	1.2	0	25	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	12	15	38	0	135	32.40837	23	24	20	20	20	15	19	32	25	38	22	31
Nickel	1	12	5	12	0	75	10.98612	9.1	12	9.8	8.5	6.2	5.6	5.2	5	7.8	11	9.2	8.1
Zinc	1	12	16	40	0	300	39.1159	40	31	33	38	21	16	20	26	27	38	22	34
Mean																			
pH (SU)	6.7							7.3	7.1	7	6.8	6.8	6.8	6	6.1	6.2	6.8	6.7	6.8
Risk parameter: Plant life pH 7 Data set: TOPSOIL Client: Taylor Wimpey UK Ltd Site: Kestrel Park, Bursledon Job no.: C-08162-C Lab. report no(s): 18-11482-1								Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground SS denotes Subsoil NAT denotes natural ground TS denotes Topsoil											

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated																			
Location & Depth								TS101	TS102	TS103	TS104	TS105	TS106	TS107	TS108	TS109	TS110	TS111	TS112
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test	0.1	0.2	0.15	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.3
Arsenic	1	12	5.2	13	0	250	POTENTIALLY SUITABLE FOR USE	7.6	9.5	13	7.9	5.4	6.4	9.6	5.2	7.4	7.5	6.7	7.6
Boron	0.2	12	0.3	0.8	0	3	POTENTIALLY SUITABLE FOR USE	0.6	0.3	0.4	0.6	0.5	0.3	0.4	0.3	0.8	0.7	0.5	0.4
Chromium (III)	1	12	10	25	0	400	POTENTIALLY SUITABLE FOR USE	24	24	22	25	12	14	17	10	15	16	11	16
Chromium (VI)	1.2	12	1.2	1.2	0	25	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	12	15	38	0	135	POTENTIALLY SUITABLE FOR USE	23	24	20	20	20	15	19	32	26	38	22	31
Nickel	1	12	5	12	0	75	POTENTIALLY SUITABLE FOR USE	9.1	12	9.8	8.5	6.2	5.6	5.2	5	7.8	11	9.2	8.1
Zinc	1	12	16	40	0	300	POTENTIALLY SUITABLE FOR USE	40	31	33	38	21	16	20	26	27	39	24	34
	Mean																		
pH (su)	6.7							7.3	7.1	7	6.8	6.8	6.8	6	6.1	6.2	6.8	6.7	6.8
Risk parameter: Plant life pH 7								Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.											
Data set: TOPSOIL								Values in red are equal to, or greater than, the generic assessment criterion (GAC).											
Client: Taylor Wimpey UK Ltd								MG denotes Made Ground											
Site: Kestrel Park, Bursledon								SS denotes Subsoil											
Job no.: C-08162-C								NAT denotes natural ground											
Lab. report no(s): 18-11482-1								TS denotes Topsoil											

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated								Soil Type													
								Location & Depth		JK101	JK102	JK103	JK104	JK105	JK106	JK107	JK108	JK109	JK110		
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10			
Aliphatics EC5-EC6	0.001	10	0.001	0.001	0	42	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001			
Aliphatics >EC6-EC8	0.001	10	0.001	0.001	0	100	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001			
Aliphatics >EC8-EC10	0.001	10	0.001	0.001	0	27	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001			
Aliphatics >EC10-EC12	1	10	1	1	0	48	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1			
Aliphatics >EC12-EC16	2	10	2	2	0	24	POTENTIALLY SUITABLE FOR USE	2	2	2	2	2	2	2	2	2	2	2			
Aliphatics >EC16-EC35	10	0	0	0	0	65000	POTENTIALLY SUITABLE FOR USE														
Aliphatics >EC35-EC44	8.4	10	8.4	8.4	0	65000	POTENTIALLY SUITABLE FOR USE	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4			
Aromatics EC5-EC7	0.001	10	0.001	0.001	0	73	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001			
Aromatics >EC7-EC8	0.001	10	0.001	0.001	0	130	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001			
Aromatics >EC8-EC10	0.001	10	0.001	0.001	0	35	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001			
Aromatics >EC10-EC12	1	10	1	1	0	75	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1			
Aromatics >EC12-EC16	2	10	2	4.8	0	150	POTENTIALLY SUITABLE FOR USE	3.9	2	2	2	2	2	2	4.7	2.5	4.8	2			
Aromatics >EC16-EC21	10	10	10	19	0	260	POTENTIALLY SUITABLE FOR USE	10	10	10	10	10	10	10	11	19	13	10			
Aromatics >EC21-EC35	10	10	10	120	0	1100	POTENTIALLY SUITABLE FOR USE	22	10	10	10	10	10	10	35	88	120	17			
Aromatics >EC35-EC44	8.4	10	8.4	75	0	1100	POTENTIALLY SUITABLE FOR USE	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	38	75	8.4			
ADDITIVITY CHECK								HAZARD QUOTIENTS FOR EACH FRACTION													
								Aliphatics EC5-EC6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
								Aliphatics >EC6-EC8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Considered additive								Aliphatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
								Aliphatics >EC10-EC12	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021				
								Aliphatics >EC12-EC16	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083				
								Aliphatics >EC16-EC35													
								Aliphatics >EC35-EC44	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
								Aromatics EC5-EC7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
								Aromatics >EC7-EC8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Considered additive								Aromatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
								Aromatics >EC10-EC12	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013				
								Aromatics >EC12-EC16	0.026	0.013	0.013	0.013	0.013	0.013	0.031	0.017	0.032	0.013			
Considered additive								Aromatics >EC16-EC21	0.038	0.038	0.038	0.038	0.038	0.038	0.042	0.073	0.050	0.038			
								Aromatics >EC21-EC35	0.020	0.009	0.009	0.009	0.009	0.009	0.032	0.080	0.109	0.015			
								Aromatics >EC35-EC44	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.035	0.068	0.008			
								Hazard Index for ali>C8-C16	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104			
								Hazard Index for aro>C8-C16	0.039	0.027	0.027	0.027	0.027	0.027	0.045	0.030	0.045	0.027			
								Hazard Index for aro>C16-C35	0.058	0.048	0.048	0.048	0.048	0.048	0.074	0.153	0.159	0.054			
Risk parameter: Human health - residential with plant uptake (1%SOM)										Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.											
Data set: TOPSOIL										Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).											
Client: Taylor Wimpey UK Ltd																					
Site: Kestrel park, Bursledon										MG denotes Made Ground											
Job no.: C-08162-C										NAT denotes natural ground											
Lab. report no(s).: 18-11482-1																					

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated								Soil Type													
								Location & Depth		TS101	TS102	TS103	TS104	TS105	TS106	TS107	TS108	TS109	TS110	TS111	TS112
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test	0.10	0.20	0.15	0.30	0.30	0.20	0.20	0.10	0.20	0.10	0.20	0.30		
Aliphatics EC5-EC6	0.001	12	0.001	0.001	0	42	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC6-EC8	0.001	12	0.001	0.001	0	100	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC8-EC10	0.001	12	0.001	0.001	0	27	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC10-EC12	1	12	1	1	0	48	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1		
Aliphatics >EC12-EC16	2	12	2	2	0	24	POTENTIALLY SUITABLE FOR USE	2	2	2	2	2	2	2	2	2	2	2	2		
Aliphatics >EC16-EC35	10	0	0	0	0	65000	POTENTIALLY SUITABLE FOR USE														
Aliphatics >EC35-EC44	8.4	12	8.4	8.4	0	65000	POTENTIALLY SUITABLE FOR USE	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4		
Aromatics EC5-EC7	0.001	12	0.001	0.001	0	73	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC7-EC8	0.001	12	0.001	0.001	0	130	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC8-EC10	0.001	12	0.001	0.001	0	35	POTENTIALLY SUITABLE FOR USE	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC10-EC12	1	12	1	1	0	75	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1		
Aromatics >EC12-EC16	2	12	2	2	0	150	POTENTIALLY SUITABLE FOR USE	2	2	2	2	2	2	2	2	2	2	2	2		
Aromatics >EC16-EC21	10	12	10	10	0	260	POTENTIALLY SUITABLE FOR USE	10	10	10	10	10	10	10	10	10	10	10	10		
Aromatics >EC21-EC35	10	12	10	10	0	1100	POTENTIALLY SUITABLE FOR USE	10	10	10	10	10	10	10	10	10	10	10	10		
Aromatics >EC35-EC44	8.4	12	8.4	8.4	0	1100	POTENTIALLY SUITABLE FOR USE	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4		
ADDITIVITY CHECK								HAZARD QUOTIENTS FOR EACH FRACTION													
								Aliphatics EC5-EC6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
								Aliphatics >EC6-EC8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Considered additive								Aliphatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
								Aliphatics >EC10-EC12	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021		
								Aliphatics >EC12-EC16	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083		
								Aliphatics >EC16-EC35													
								Aliphatics >EC35-EC44	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
								Aromatics EC5-EC7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
								Aromatics >EC7-EC8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Considered additive								Aromatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
								Aromatics >EC10-EC12	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013		
								Aromatics >EC12-EC16	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013		
Considered additive								Aromatics >EC16-EC21	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038		
								Aromatics >EC21-EC35	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009		
								Aromatics >EC35-EC44	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008			
								Hazard Index for ali>C8-C16	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104		
								Hazard Index for aro>C8-C16	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027		
								Hazard Index for aro>C16-C35	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048		
Risk parameter: Human health - residential with plant uptake (1%SOM)								Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.													
Data set: TOPSOIL								Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.													
Client: Taylor Wimpey UK Ltd																					
Site: Kestrel park, Bursledon								Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).													
Job no.: C-08162-C								MG denotes Made Ground													
Lab. report no(s).: 18-11482-1								NAT denotes natural ground													

*Laboratory testing and contamination assessment for the Country
Park Area*

**Yacklin Panza**

Hydrock Consultants Ltd
Suite 8
White Building
1-4 Cumberland Place
Southampton
Hampshire
SO15 2NP

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

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: Group Southampton cc engineer

Analytical Report Number : 21-16929

Project / Site name:	Kestrel Park - Bursledon	Samples received on:	15/10/2021
Your job number:	08162-GELS	Samples instructed on/ Analysis started on:	15/10/2021
Your order number:	PO10757	Analysis completed by:	25/10/2021
Report Issue Number:	1	Report issued on:	25/10/2021
Samples Analysed:	1 bulk sample - 46 soil samples		

Sig

Karo
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

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

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050218	2050219	2050221	2050222	2050223
Sample Reference				CPV-01-TS-0.10	CPV-01-SS-0.40	CPV-02-TS-0.10	CPV-02-SS-0.35	CPV-03-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.10	0.35	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	10	14	12	13
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.4	8.0	6.7	8.4	6.4
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.041	0.18	0.035	0.13	0.030
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.023	0.0091	0.022	0.0077	0.028

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.36
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.57	< 0.05	< 0.05	0.42
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.67	< 0.05	< 0.05	0.39
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.74	< 0.05	< 0.05	0.23
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.50	< 0.05	< 0.05	0.17
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.67	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.32	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.65	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.28	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.40	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	4.80	< 0.80	< 0.80	1.57
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.4	9.6	7.6	9.2	5.9
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.31	0.58	0.31	0.49	0.28
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.7	0.6	0.7	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	17	23	17	19	16
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17	23	17	19	16
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	12	11	11	10
Lead (aqua regia extractable)	mg/kg	1	MCERTS	37	19	37	18	35
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	7.4	13	7.7	10	6.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	27	34	28	29	26
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	42	49	47	46	41

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050218	2050219	2050221	2050222	2050223
Sample Reference				CPV-01-TS-0.10	CPV-01-SS-0.40	CPV-02-TS-0.10	CPV-02-SS-0.35	CPV-03-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.10	0.35	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	< 10
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050224	2050225	2050226	2050227	2050228
Sample Reference				CPV-03-SS-0.30	CPV-04-TS-0.10	CPV-04-SS-0.70	CPV-05-SS-0.40	CPV-06-SS-0.40
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.10	0.70	0.40	0.40
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	9.5	13	17	14
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.0	7.9	8.4	7.9	8.3
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.18	0.046	0.21	0.10	0.19
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0096	0.025	0.0065	0.0073	0.0095

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.34
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.87
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.85
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.62
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.47
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.53
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.28
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.49
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.25
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.31

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80	5.01
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	12	11	14	8.8
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.50	0.36	0.78	0.79	0.45
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.3	0.4	0.7	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	21	23	25	35	20
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	23	25	35	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	19	11	28	8.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	20	50	14	25	20
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	11	11	19	21	7.3
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	35	38	56	31
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	48	61	61	100	44

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050224	2050225	2050226	2050227	2050228						
Sample Reference				CPV-03-SS-0.30	CPV-04-TS-0.10	CPV-04-SS-0.70	CPV-05-SS-0.40	CPV-06-SS-0.40						
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied						
Depth (m)				0.30	0.10	0.70	0.40	0.40						
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021						
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied						
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status											
Petroleum Hydrocarbons														
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1			
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10			
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10			

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050229	2050230	2050231	2050232	2050233
Sample Reference				CPV-07-TS-0.10	CPV-07-SS-0.40	CPV-08-TS-0.10	CPV-08-SS-0.60	CPV-10-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.10	0.60	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	17	15	15	15
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.0	8.0	7.2	8.2	7.0
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.062	0.20	0.072	0.17	0.060
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.025	0.0071	0.021	0.0089	0.019

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.32	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.80	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.84	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.75	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.56	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.81	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.43	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.74	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.44	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.56	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	6.25	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.0	9.9	6.8	12	6.9
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.33	0.43	0.37	0.76	0.37
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.6	0.4	0.7	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	19	26	19	31	21
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	26	19	31	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16	11	15	24	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	58	17	37	30	42
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	8.1	6.8	11	20	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	36	30	48	33
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	64	45	49	83	81

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050229	2050230	2050231	2050232	2050233
Sample Reference				CPV-07-TS-0.10	CPV-07-SS-0.40	CPV-08-TS-0.10	CPV-08-SS-0.60	CPV-10-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.10	0.60	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	< 10
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050234	2050235	2050236	2050237	2050238
Sample Reference				CPV-10-SS-0.50	CPV-11-SS-0.40	CPV-12-TS-0.10	CPV-12-SS-0.35	CPV-16-TS-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.40	0.10	0.35	0.20
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	13	13	13	16
Total mass of sample received	kg	0.001	NONE	1.0	1.0	0.90	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	7.9	7.1	7.9	7.2
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.25	0.15	0.027	0.060	0.024
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0065	0.0094	0.021	0.0029	0.022

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.53	< 0.05	< 0.05	< 0.05	0.36
Pyrene	mg/kg	0.05	MCERTS	0.58	< 0.05	< 0.05	< 0.05	0.35
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.58	< 0.05	< 0.05	< 0.05	0.19
Chrysene	mg/kg	0.05	MCERTS	0.42	< 0.05	< 0.05	< 0.05	0.22
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.54	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.30	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.55	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.33	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.41	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	4.24	< 0.80	< 0.80	< 0.80	1.12
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.3	9.7	5.6	8.5	7.0
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.49	0.41	0.20	0.40	0.30
Boron (water soluble)	mg/kg	0.2	MCERTS	1.4	0.5	0.6	< 0.2	0.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	26	21	14	27	16
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	21	14	27	16
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	14	14	9.4	17
Lead (aqua regia extractable)	mg/kg	1	MCERTS	24	19	30	13	52
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	11	7.4	6.8	7.6	8.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	40	30	20	32	27
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	100	43	33	28	70

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050234	2050235	2050236	2050237	2050238
Sample Reference				CPV-10-SS-0.50	CPV-11-SS-0.40	CPV-12-TS-0.10	CPV-12-SS-0.35	CPV-16-TS-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.40	0.10	0.35	0.20
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	< 10
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050239	2050240	2050241	2050242	2050243
Sample Reference				CPV-17-TS-0.10	CPV-17-SS-0.40	CPV-18-SS-0.40	CPV-19-TS-0.10	CPV-19-SS-0.35
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	0.10	0.35
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	11	14	13	10
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.9	8.2	8.1	7.8	8.3
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.022	0.013	0.039	0.074	0.14
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.021	0.0033	0.0089	0.024	0.0093

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.25
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	1.3
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.17
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.27	3.2
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	2.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.26	1.1
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.16	0.66
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.27	0.52
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.19	0.25
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.26	0.42
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	1.70	10.4
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.8	6.1	9.4	7.0	7.3
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.38	0.29	0.39	0.34	0.42
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.2	0.6	0.7	0.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	16	23	23	18	19
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	23	23	18	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	9.2	6.3	20	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	49	8.6	17	35	29
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	7.2	7.4	5.5	8.6	8.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	28	31	37	29	29
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	35	17	30	57	38

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050239	2050240	2050241	2050242	2050243
Sample Reference				CPV-17-TS-0.10	CPV-17-SS-0.40	CPV-18-SS-0.40	CPV-19-TS-0.10	CPV-19-SS-0.35
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	0.10	0.35
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	18
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	160

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050244	2050245	2050246	2050247	2050248
Sample Reference				CPV-20-SS-0.40	CPV-24-TS-0.10	CPV-24-SS-0.30	CPV-23-SS-0.40	CPV-22-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.10	0.30	0.40	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	14	9.6	17	12
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	7.5	9.2	8.2	7.5
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.066	0.091	0.83	0.21	0.074
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0090	0.020	0.011	< 0.0010	0.020

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.5	6.7	9.5	9.8	8.5
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.46	0.29	0.42	0.53	0.37
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.4	1.2	0.5	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	23	19	27	22	23
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	19	27	22	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	6.8	11	12	8.4	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	34	15	15	37
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	6.4	8.1	9.0	8.6	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	35	27	39	28	35
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	38	40	44	37	46

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050244	2050245	2050246	2050247	2050248
Sample Reference				CPV-20-SS-0.40	CPV-24-TS-0.10	CPV-24-SS-0.30	CPV-23-SS-0.40	CPV-22-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.10	0.30	0.40	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	< 10
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050249	2050250	2050251	2050252	2050253
Sample Reference				CPV-22-SS-0.40	CPV-21-SS-0.40	CPV-25-TS-0.20	CPV-25-SS-0.60	CPV-26-SS-0.50
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.40	0.20	0.60	0.50
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	15	13	9.4	17	17
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.2	8.1	6.9	8.1	5.6
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.014	0.12	0.041	0.030	0.023
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0034	0.0052	0.023	0.017	0.0016

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.25	0.41	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.41	0.94	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.40	0.94	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.34	0.69	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.30	0.54	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.48	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.46	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	1.70	4.75	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.6	8.4	9.5	11	10
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.35	0.49	0.37	0.40	0.59
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.3	0.5	0.6	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	30	28	23	24	28
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30	28	23	24	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	4.0	6.9	19	11	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	9.9	15	63	25	12
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	3.9	6.5	9.6	5.7	8.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	38	39	31	38	35
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	18	37	58	36	41

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050249	2050250	2050251	2050252	2050253
Sample Reference				CPV-22-SS-0.40	CPV-21-SS-0.40	CPV-25-TS-0.20	CPV-25-SS-0.60	CPV-26-SS-0.50
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.40	0.20	0.60	0.50
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C25)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH (C25 - C40)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050254	2050255	2050256	2050257	2050258
Sample Reference				CPV-27-TS-0.10	CPV-27-SS-0.40	CPV-28-SS-0.40	CPV-32-SS-0.40	CPV-31-SS-0.40
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	0.40	0.40
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	55	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	13	10	14	15
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.6	7.7	10.7	8.8	8.2
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.028	0.13	0.34	0.31	0.14
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.025	0.011	0.0088	0.0064	0.0067

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	2.0
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.43
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.37	< 0.05	< 0.05	2.0
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.39	< 0.05	< 0.05	1.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.96
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.75
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.61
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.37
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.58
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.32
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.40

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80	10.1
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.3	9.1	11	15	8.0
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.30	0.56	0.51	0.58	0.52
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.6	0.9	1.0	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	21	23	33	46	26
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	23	33	46	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	11	20	19	9.9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	35	22	21	20	16
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	7.8	8.6	12	11	6.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	35	42	61	36
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	44	43	59	52	45

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050254	2050255	2050256	2050257	2050258
Sample Reference				CPV-27-TS-0.10	CPV-27-SS-0.40	CPV-28-SS-0.40	CPV-32-SS-0.40	CPV-31-SS-0.40
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	0.40	0.40
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1
TPH (C10 - C25)				mg/kg	10	MCERTS	< 10	< 10
TPH (C25 - C40)				mg/kg	10	MCERTS	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050259	2050260	2050261	2050262	2050263
Sample Reference				CPV-30-SS-0.30	CPV-29-TS-0.10	CPV-29-SS-0.60	CPV-13-TS-0.20	CPV-33-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.10	0.60	0.20	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	12	11	16	18
Total mass of sample received	kg	0.001	NONE	1.0	1.0	1.0	1.0	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	7.1	7.5	7.3	6.6
Free Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.14	0.021	0.033	0.070	0.039
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.0087	0.027	0.025	0.025	0.024

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.51	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.49	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.47	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.40	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.49	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.29	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.39	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.29	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.36	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	3.69	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.6	8.2	10	4.8	8.1
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.49	0.34	0.40	0.22	0.35
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.8	0.6	0.9	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	22	19	20	11	17
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	19	21	11	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	13	20	13	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	20	41	66	44	42
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	7.3	8.3	9.5	4.8	7.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	31	31	32	19	30
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	38	55	52	50	45

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050259	2050260	2050261	2050262	2050263
Sample Reference				CPV-30-SS-0.30	CPV-29-TS-0.10	CPV-29-SS-0.60	CPV-13-TS-0.20	CPV-33-TS-0.10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.10	0.60	0.20	0.10
Date Sampled				13/10/2021	13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Unit of detection	Accreditation Status					
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C25)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH (C25 - C40)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO10757

Lab Sample Number				2050297
Sample Reference				CPV-11-TS-0.10
Sample Number				None Supplied
Depth (m)				0.10
Date Sampled				13/10/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	15
Total mass of sample received	kg	0.001	NONE	1.0

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.4
Free Cyanide	mg/kg	1	MCERTS	< 1.0
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.047
Fraction Organic Carbon (FOC) Automated	N/A	0.001	MCERTS	0.021

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.2
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.33
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2
Chromium (III)	mg/kg	1	NONE	17
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	41
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.6
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	29
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41

Analytical Report Number: 21-16929
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO10757

Lab Sample Number				2050297
Sample Reference				CPV-11-TS-0.10
Sample Number				None Supplied
Depth (m)				0.10
Date Sampled				13/10/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Petroleum Hydrocarbons				
Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1
TPH (C10 - C25)	mg/kg	10	MCERTS	< 10
TPH (C25 - C40)	mg/kg	10	MCERTS	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 21-16929
Project / Site name: Kestrel Park - Bursledon

Your Order No: PO10757

Lab Sample Number					2050220
Sample Reference					CPV-01-ABS-0.30
Sample Number					None Supplied
Depth (m)					0.30
Date Sampled					13/10/2021
Time Taken					None Supplied
Analytical Parameter (Bulk Analysis)					
	Units	Limit of detection	Accreditation Status		
Asbestos Identification	Type	N/A	ISO 17025	Chrysotile-Hard/Cement Type Material	

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-16929
Project / Site name: Kestrel Park - Bursledon

* 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 *
2050218	CPV-01-TS-0.10	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2050219	CPV-01-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel and vegetation.
2050221	CPV-02-TS-0.10	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2050222	CPV-02-SS-0.35	None Supplied	0.35	Brown clay and loam with gravel and vegetation.
2050223	CPV-03-TS-0.10	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2050224	CPV-03-SS-0.30	None Supplied	0.3	Brown clay and sand with gravel.
2050225	CPV-04-TS-0.10	None Supplied	0.1	Brown clay and loam with gravel.
2050226	CPV-04-SS-0.70	None Supplied	0.7	Brown clay and sand with gravel.
2050227	CPV-05-SS-0.40	None Supplied	0.4	Brown clay and loam with gravel and vegetation.
2050228	CPV-06-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel.
2050229	CPV-07-TS-0.10	None Supplied	0.1	Brown clay and loam with gravel.
2050230	CPV-07-SS-0.40	None Supplied	0.4	Brown clay and loam with gravel.
2050231	CPV-08-TS-0.10	None Supplied	0.1	Brown clay and loam with gravel and vegetation.
2050232	CPV-08-SS-0.60	None Supplied	0.6	Brown clay and loam with gravel.
2050233	CPV-10-TS-0.10	None Supplied	0.1	Brown clay and loam with gravel and vegetation.
2050234	CPV-10-SS-0.50	None Supplied	0.5	Brown clay and loam with gravel.
2050235	CPV-11-SS-0.40	None Supplied	0.4	Brown clay and loam with gravel.
2050236	CPV-12-TS-0.10	None Supplied	0.1	Brown clay and loam with gravel and vegetation.
2050237	CPV-12-SS-0.35	None Supplied	0.35	Brown clay and sand with gravel.
2050238	CPV-16-TS-0.20	None Supplied	0.2	Brown clay and sand with gravel.
2050239	CPV-17-TS-0.10	None Supplied	0.1	Brown clay and loam with gravel and vegetation.
2050240	CPV-17-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel.
2050241	CPV-18-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel.
2050242	CPV-19-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2050243	CPV-19-SS-0.35	None Supplied	0.35	Brown clay and sand with gravel and vegetation.
2050244	CPV-20-SS-0.40	None Supplied	0.4	Brown clay with gravel.
2050245	CPV-24-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2050246	CPV-24-SS-0.30	None Supplied	0.3	Brown clay with gravel.
2050247	CPV-23-SS-0.40	None Supplied	0.4	Brown clay and sand.
2050248	CPV-22-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2050249	CPV-22-SS-0.40	None Supplied	0.4	Brown clay.
2050250	CPV-21-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel.
2050251	CPV-25-TS-0.20	None Supplied	0.2	Brown loam and clay with gravel.
2050252	CPV-25-SS-0.60	None Supplied	0.6	Brown loam and clay with gravel and vegetation.
2050253	CPV-26-SS-0.50	None Supplied	0.5	Brown clay.
2050254	CPV-27-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2050255	CPV-27-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel and vegetation.
2050256	CPV-28-SS-0.40	None Supplied	0.4	Brown clay and sand with stones.
2050257	CPV-32-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel.
2050258	CPV-31-SS-0.40	None Supplied	0.4	Brown clay and sand with gravel and vegetation.
2050259	CPV-30-SS-0.30	None Supplied	0.3	Brown clay and sand with gravel and vegetation.
2050260	CPV-29-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2050261	CPV-29-SS-0.60	None Supplied	0.6	Brown loam and clay with gravel and vegetation.
2050262	CPV-13-TS-0.20	None Supplied	0.2	Brown clay and sand with gravel and vegetation.
2050263	CPV-33-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2050297	CPV-11-TS-0.10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.

Analytical Report Number : 21-16929
Project / Site name: Kestrel Park - Bursledon

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in Bulks	Asbestos Identification in bulk material with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	W	ISO 17025
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
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	L038-PL	D	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
PRO (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
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.	L019-UK/PL	D	NONE
TPH Oils (Soils)	Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method with silica gel split/clean up.	L076-PL	D	MCERTS
DRO (Soil)	Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method with silica gel split/clean up.	L076-PL	D	MCERTS
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
Fraction Organic Carbon FOC Automated	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method	L009	D	MCERTS



Analytical Report Number : 21-16929
Project / Site name: Kestrel Park - Bursledon

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

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

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

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

Sample Deviation Report



Analytical Report Number : 21-16929
Project / Site name: Kestrel Park - Bursledon

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
CPV-03-SS-0.30	None Supplied	S	2050224	b	DRO (Soil)	L076-PL	b
CPV-03-SS-0.30	None Supplied	S	2050224	b	Monohydric phenols in soil	L080-PL	b
CPV-03-SS-0.30	None Supplied	S	2050224	b	PRO (Soil)	L088-PL	b
CPV-03-SS-0.30	None Supplied	S	2050224	b	Speciated EPA-16 PAHs in soil	L064-PL	b
CPV-03-SS-0.30	None Supplied	S	2050224	b	TPH Oils (Soils)	L076-PL	b

Hydrock 08162 stats01 - Hydrock Suite subsoil hh, Summary Human Health

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated							Soil Type	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
Location & Depth							CPV-24-SS	CPV-23-SS	CPV-22-SS	CPV-21-SS	V-25-SS-0.30	V-26-SS-0.40	V-27-SS-0.40	V-28-SS-0.40	V-32-SS-0.40	V-31-SS-0.40	V-30-SS-0.30	V-29-SS-0.60
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test	0.30	0.40	0.40	0.40	0.60	0.50	0.40	0.40	0.40	0.40	0.30	0.60
Arsenic	1	27	6.1	15	0	POTENTIALLY SUITABLE FOR USE	9.5	9.8	7.6	8.4	11	10	9.1	11	15	8	8.6	10
Beryllium	0.06	27	0.29	0.79	0	POTENTIALLY SUITABLE FOR USE	0.42	0.53	0.35	0.49	0.4	0.59	0.56	0.51	0.58	0.52	0.49	0.4
Boron	0.2	27	0.2	1.4	0	POTENTIALLY SUITABLE FOR USE	1.2	0.5	0.4	0.3	0.6	0.6	0.6	0.9	1	0.6	0.5	0.6
Cadmium	0.2	27	0.2	0.3	0	POTENTIALLY SUITABLE FOR USE	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Chromium (III)	1	27	19	46	0	POTENTIALLY SUITABLE FOR USE	27	22	30	28	24	28	23	33	46	26	22	20
Chromium (VI)	1.2	27	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	27	4	31	0	POTENTIALLY SUITABLE FOR USE	12	8.4	4	6.9	11	13	11	20	19	9.9	11	20
Lead	1	27	8.6	66	0	POTENTIALLY SUITABLE FOR USE	15	15	9.9	15	25	12	22	21	20	16	20	66
Mercury, inorganic	0.3	27	0.3	0.3	0	POTENTIALLY SUITABLE FOR USE	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Nickel	1	27	3.9	21	0	POTENTIALLY SUITABLE FOR USE	9	8.6	3.9	6.5	5.7	8	8.6	12	11	6.4	7.3	9.5
Selenium	1	27	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1
Vanadium	1	27	28	61	0	POTENTIALLY SUITABLE FOR USE	39	28	38	39	38	35	35	42	61	36	31	32
Zinc	1	27	17	100	0	POTENTIALLY SUITABLE FOR USE	44	37	18	37	36	41	43	59	52	45	38	52
Cyanide (free)	1	27	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1
Phenol (total)	1	27	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1
Acenaphthene	0.05	27	0.05	0.25	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Acenaphthylene	0.05	27	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Anthracene	0.05	27	0.05	0.43	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.43	0.05	0.05
Benz(a)anthracene	0.05	27	0.05	1.1	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.69	0.05	0.05	0.05	0.05	0.96	0.05	0.47
Benzo(a)pyrene	0.05	27	0.05	0.74	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.46	0.05	0.05	0.05	0.05	0.58	0.05	0.39
Benzo(b)fluoranthene	0.05	27	0.05	0.81	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.48	0.05	0.05	0.05	0.05	0.61	0.05	0.49
Benzo(ghi)perylene	0.05	27	0.05	0.56	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.4	0.05	0.36
Benzo(k)fluoranthene	0.05	27	0.05	0.43	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.29	0.05	0.05	0.05	0.05	0.37	0.05	0.29
Chrysene	0.05	27	0.05	0.75	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.54	0.05	0.05	0.05	0.05	0.75	0.05	0.4
Dibenz(a,h)anthracene	0.05	27	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Fluoranthene	0.05	27	0.05	3.2	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.94	0.05	0.37	0.05	0.05	2	0.05	0.51
Fluorene	0.05	27	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Indeno(1,2,3,cd)pyrene	0.05	27	0.05	0.44	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.32	0.05	0.29
Naphthalene	0.05	27	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Phenanthrene	0.05	27	0.05	2	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.41	0.05	0.05	0.05	0.05	2	0.05	0.05
Pyrene	0.05	27	0.05	2.5	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.94	0.05	0.39	0.05	0.05	1.6	0.05	0.49
Asbestos identified	Y/N						N	N	N	N	N	N	N	N	N	N	N	N
FOC (dimensionless)	0.008222	(mean)					0.011	0.001	0.0034	0.0052	0.017	0.0016	0.011	0.0088	0.0064	0.0067	0.0087	0.025
SOM (calculated)	1.42%	(mean)					1.90%	0.17%	0.59%	0.90%	2.93%	0.28%	1.90%	1.52%	1.10%	1.16%	1.50%	4.31%
pH (su)	8.1	(mean)					9.2	8.2	7.2	8.1	8.1	5.6	7.7	10.7	8.8	8.2	8.4	7.5
Risk parameter: Human health - POS park (1%SOM) Data set: Subsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1																		

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated							Soil Type	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
							Location & Depth	CPV-01-SS	CPV-02-SS	CPV-03-SS	CPV-04-SS	CPV-05-SS	CPV-06-SS	CPV-07-SS	CPV-08-SS	CPV-10-SS	CPV-11-SS	CPV-12-SS	CPV-17-SS	CPV-18-SS	CPV-19-SS	CPV-20-SS
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test		0.40	0.35	0.30	0.70	0.40	0.40	0.40	0.60	0.50	0.40	0.35	0.40	0.40	0.35	0.40
Arsenic	1	27	6.1	15	0	POTENTIALLY SUITABLE FOR USE		9.6	9.2	8.7	11	14	8.8	9.9	12	9.3	9.7	8.5	6.1	9.4	7.3	8.5
Boron	0.2	27	0.2	1.4	0	POTENTIALLY SUITABLE FOR USE		0.7	0.7	0.5	0.4	0.7	0.6	0.6	0.7	1.4	0.5	0.2	0.2	0.6	0.8	0.4
Chromium (III)	1	27	19	46	0	POTENTIALLY SUITABLE FOR USE		23	19	21	25	35	20	26	31	26	21	27	23	23	19	23
Chromium (VI)	1.2	27	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	27	4	31	0	POTENTIALLY SUITABLE FOR USE		12	11	15	11	28	8.8	11	24	31	14	9.4	9.2	6.3	13	6.8
Nickel	1	27	3.9	21	0	POTENTIALLY SUITABLE FOR USE		13	10	11	19	21	7.3	6.8	20	11	7.4	7.6	7.4	5.5	8.7	6.4
Zinc	1	27	17	100	0	POTENTIALLY SUITABLE FOR USE		49	46	48	61	100	44	45	83	100	43	28	17	30	38	38
	Mean																					
pH (su)	8.1							8	8.4	8	8.4	7.9	8.3	8	8.2	8.1	7.9	7.9	8.2	8.1	8.3	8.1
Risk parameter: Plant life pH >7 Data set: Subsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1 Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground																						

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated							Soil Type	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
							Location & Depth	CPV-24-SS	CPV-23-SS	CPV-22-SS	CPV-21-SS	CPV-25-SS	PV-26-SS-0.2	PV-27-SS-0.2	PV-28-SS-0.2	PV-32-SS-0.2	PV-31-SS-0.2	PV-30-SS-0.2
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test	0.30	0.40	0.40	0.40	0.60	0.50	0.40	0.40	0.40	0.40	0.30	0.60
Arsenic	1	27	6.1	15	0	POTENTIALLY SUITABLE FOR USE	9.5	9.8	7.6	8.4	11	10	9.1	11	15	8	8.6	10
Boron	0.2	27	0.2	1.4	0	POTENTIALLY SUITABLE FOR USE	1.2	0.5	0.4	0.3	0.6	0.6	0.6	0.9	1	0.6	0.5	0.6
Chromium (III)	1	27	19	46	0	POTENTIALLY SUITABLE FOR USE	27	22	30	28	24	28	23	33	46	26	22	20
Chromium (VI)	1.2	27	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	27	4	31	0	POTENTIALLY SUITABLE FOR USE	12	8.4	4	6.9	11	13	11	20	19	9.9	11	20
Nickel	1	27	3.9	21	0	POTENTIALLY SUITABLE FOR USE	9	8.6	3.9	6.5	5.7	8	8.6	12	11	6.4	7.3	9.5
Zinc	1	27	17	100	0	POTENTIALLY SUITABLE FOR USE	44	37	18	37	36	41	43	59	52	45	38	52
	Mean																	
pH (su)	8.1						9.2	8.2	7.2	8.1	8.1	5.6	7.7	10.7	8.8	8.2	8.4	7.5
Risk parameter: Plant life pH >7 Data set: Subsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1																		

Assessment of Chemicals of Potential Concern to Human Health



Soil Type							TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS
Location & Depth							CPV-01-TS	CPV-02-TS	CPV-03-TS	CPV-04-TS	CPV-07-TS	CPV-08-TS	CPV-10-TS	CPV-12-TS	CPV-16-TS	CPV-17-TS	CPV-19-TS	CPV-24-TS	CPV-22-TS	CPV-25-TS	CPV-27-TS
All values in mg/kg unless otherwise stated							0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.10	0.10	0.10	0.10	0.20	0.10
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test															
Arsenic	1	19	4.8	12	0	POTENTIALLY SUITABLE FOR USE	6.4	7.6	5.9	12	7	6.8	6.9	5.6	7	5.8	7	6.7	8.5	9.5	6.3
Beryllium	0.06	19	0.2	0.38	0	POTENTIALLY SUITABLE FOR USE	0.31	0.31	0.28	0.36	0.33	0.37	0.37	0.2	0.3	0.38	0.34	0.29	0.37	0.37	0.3
Boron	0.2	19	0.3	0.9	0	POTENTIALLY SUITABLE FOR USE	0.4	0.6	0.6	0.3	0.7	0.4	0.5	0.6	0.8	0.5	0.7	0.4	0.9	0.5	0.6
Cadmium	0.2	19	0.2	0.3	0	POTENTIALLY SUITABLE FOR USE	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Chromium (III)	1	19	11	23	0	POTENTIALLY SUITABLE FOR USE	17	17	16	23	19	19	21	14	16	16	18	19	23	23	21
Chromium (VI)	1.2	19	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	19	10	25	0	POTENTIALLY SUITABLE FOR USE	11	11	10	19	16	15	25	14	17	11	20	11	11	19	11
Lead	1	19	30	63	0	POTENTIALLY SUITABLE FOR USE	37	37	35	50	58	37	42	30	52	49	35	34	37	63	35
Mercury, inorganic	0.3	19	0.3	0.3	0	POTENTIALLY SUITABLE FOR USE	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Nickel	1	19	4.8	11	0	POTENTIALLY SUITABLE FOR USE	7.4	7.7	6.8	11	8.1	11	10	6.8	8.4	7.2	8.6	8.1	7.8	9.6	7.8
Selenium	1	19	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Vanadium	1	19	19	35	0	POTENTIALLY SUITABLE FOR USE	27	28	26	35	30	30	33	20	27	28	29	27	35	31	31
Zinc	1	19	33	81	0	POTENTIALLY SUITABLE FOR USE	42	47	41	61	64	49	81	33	70	35	57	40	46	58	44
Cyanide (free)	1	19	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Phenol (total)	1	19	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Acenaphthene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Acenaphthylene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Anthracene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benz(a)anthracene	0.05	19	0.05	0.34	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.23	0.05	0.05	0.05	0.05	0.05	0.19	0.05	0.26	0.05	0.05	0.34	0.05
Benzo(a)pyrene	0.05	19	0.05	0.26	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.26	0.05	0.05	0.05	0.05
Benzo(b)fluoranthene	0.05	19	0.05	0.27	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.27	0.05	0.05	0.05	0.05
Benzo(ghi)perylene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Benzo(k)fluoranthene	0.05	19	0.05	0.19	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.19	0.05	0.05	0.05	0.05
Chrysene	0.05	19	0.05	0.3	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.17	0.05	0.05	0.05	0.05	0.05	0.22	0.05	0.16	0.05	0.05	0.3	0.05
Dibenz(a,h)anthracene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Fluoranthene	0.05	19	0.05	0.42	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.42	0.05	0.05	0.05	0.05	0.05	0.36	0.05	0.27	0.05	0.05	0.41	0.05
Fluorene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Indeno(1,2,3,cd)pyrene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Naphthalene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Phenanthrene	0.05	19	0.05	0.36	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.36	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.25	0.05
Pyrene	0.05	19	0.05	0.4	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.39	0.05	0.05	0.05	0.05	0.05	0.35	0.05	0.29	0.05	0.05	0.4	0.05
Asbestos identified	Y/N						N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
FOC (dimensionless)	0.022947	(mean)					0.023	0.022	0.028	0.025	0.025	0.021	0.019	0.021	0.022	0.021	0.024	0.02	0.02	0.023	0.025
SOM (calculated)	3.96%	(mean)					3.97%	3.79%	4.83%	4.31%	4.31%	3.62%	3.28%	3.62%	3.79%	3.62%	4.14%	3.45%	3.45%	3.97%	4.31%
pH (su)	7.1	(mean)					6.4	6.7	6.4	7.9	7	7.2	7	7.1	7.2	6.9	7.8	7.5	7.5	6.9	7.6
Risk parameter: Human health - POS resi (6%SOM) Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1 Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground																					

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated						Soil Type	TS	TS	TS	TS	
						Location & Depth	CPV-29-TS	CPV-13-TS	CPV-33-TS	CPV-11-TS	
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test	0.10	0.20	0.10	0.10	
Arsenic	1	19	4.8	12	0	POTENTIALLY SUITABLE FOR USE	8.2	4.8	8.1	7.2	
Beryllium	0.06	19	0.2	0.38	0	POTENTIALLY SUITABLE FOR USE	0.34	0.22	0.35	0.33	
Boron	0.2	19	0.3	0.9	0	POTENTIALLY SUITABLE FOR USE	0.8	0.9	0.4	0.6	
Cadmium	0.2	19	0.2	0.3	0	POTENTIALLY SUITABLE FOR USE	0.2	0.2	0.2	0.2	
Chromium (III)	1	19	11	23	0	POTENTIALLY SUITABLE FOR USE	19	11	17	17	
Chromium (VI)	1.2	19	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	
Copper	1	19	10	25	0	POTENTIALLY SUITABLE FOR USE	13	13	13	11	
Lead	1	19	30	63	0	POTENTIALLY SUITABLE FOR USE	41	44	42	41	
Mercury, inorganic	0.3	19	0.3	0.3	0	POTENTIALLY SUITABLE FOR USE	0.3	0.3	0.3	0.3	
Nickel	1	19	4.8	11	0	POTENTIALLY SUITABLE FOR USE	8.3	4.8	7.4	7.6	
Selenium	1	19	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	
Vanadium	1	19	19	35	0	POTENTIALLY SUITABLE FOR USE	31	19	30	29	
Zinc	1	19	33	81	0	POTENTIALLY SUITABLE FOR USE	55	50	45	41	
Cyanide (free)	1	19	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	
Phenol (total)	1	19	1	1	0	POTENTIALLY SUITABLE FOR USE	1	1	1	1	
Acenaphthene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Acenaphthylene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Anthracene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Benz(a)anthracene	0.05	19	0.05	0.34	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Benzo(a)pyrene	0.05	19	0.05	0.26	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Benzo(b)fluoranthene	0.05	19	0.05	0.27	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Benzo(ghi)perylene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Benzo(k)fluoranthene	0.05	19	0.05	0.19	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Chrysene	0.05	19	0.05	0.3	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Dibenz(a,h)anthracene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Fluoranthene	0.05	19	0.05	0.42	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Fluorene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Indeno(1,2,3,cd)pyrene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Naphthalene	0.05	19	0.05	0.05	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Phenanthrene	0.05	19	0.05	0.36	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Pyrene	0.05	19	0.05	0.4	0	POTENTIALLY SUITABLE FOR USE	0.05	0.05	0.05	0.05	
Asbestos identified	Y/N						N	N	N	N	
FOC (dimensionless)	0.022947	(mean)					0.027	0.025	0.024	0.021	
SOM (calculated)	3.96%	(mean)					4.65%	4.31%	4.14%	3.62%	
pH (su)	7.1	(mean)					7.1	7.3	6.6	6.4	
Risk parameter: Human health - POS resi (6%SOM) Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1											

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated							Soil Type	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS
							Location & Depth	CPV-01-TS	CPV-02-TS	CPV-03-TS	CPV-04-TS	CPV-07-TS	CPV-08-TS	CPV-10-TS	CPV-12-TS	CPV-16-TS	CPV-17-TS	CPV-19-TS	CPV-24-TS	CPV-22-TS	CPV-25-TS	CPV-27-TS
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.20	0.10	0.10	0.10	0.10	0.20	0.10	
Arsenic	1	19	4.8	12	0	POTENTIALLY SUITABLE FOR USE	6.4	7.6	5.9	12	7	6.8	6.9	5.6	7	5.8	7	6.7	8.5	9.5	6.3	
Boron	0.2	19	0.3	0.9	0	POTENTIALLY SUITABLE FOR USE	0.4	0.6	0.6	0.3	0.7	0.4	0.5	0.6	0.8	0.5	0.7	0.4	0.9	0.5	0.6	
Chromium (III)	1	19	11	23	0	POTENTIALLY SUITABLE FOR USE	17	17	16	23	19	19	21	14	16	16	18	19	23	23	21	
Chromium (VI)	1.2	19	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Copper	1	19	10	25	0	POTENTIALLY SUITABLE FOR USE	11	11	10	19	16	15	25	14	17	11	20	11	11	19	11	
Nickel	1	19	4.8	11	0	POTENTIALLY SUITABLE FOR USE	7.4	7.7	6.8	11	8.1	11	10	6.8	8.4	7.2	8.6	8.1	7.8	9.6	7.8	
Zinc	1	19	33	81	0	POTENTIALLY SUITABLE FOR USE	42	47	41	61	64	49	81	33	70	35	57	40	46	58	44	
	Mean																					
pH (su)	7.1						6.4	6.7	6.4	7.9	7	7.2	7	7.1	7.2	6.9	7.8	7.5	7.5	6.9	7.6	
Risk parameter: Plant life pH 7 Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1 Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground																						

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated						Soil Type	TS	TS	TS	TS	
						Location & Depth	CPV-29-TS	CPV-13-TS	CPV-33-TS	CPV-11-TS	
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	Result of Significance Test	0.10	0.20	0.10	0.10	
Arsenic	1	19	4.8	12	0	POTENTIALLY SUITABLE FOR USE	8.2	4.8	8.1	7.2	
Boron	0.2	19	0.3	0.9	0	POTENTIALLY SUITABLE FOR USE	0.8	0.9	0.4	0.6	
Chromium (III)	1	19	11	23	0	POTENTIALLY SUITABLE FOR USE	19	11	17	17	
Chromium (VI)	1.2	19	1.2	1.2	0	POTENTIALLY SUITABLE FOR USE	1.2	1.2	1.2	1.2	
Copper	1	19	10	25	0	POTENTIALLY SUITABLE FOR USE	13	13	13	11	
Nickel	1	19	4.8	11	0	POTENTIALLY SUITABLE FOR USE	8.3	4.8	7.4	7.6	
Zinc	1	19	33	81	0	POTENTIALLY SUITABLE FOR USE	55	50	45	41	
	Mean										
pH (su)	7.1						7.1	7.3	6.6	6.4	
Risk parameter: Plant life pH 7 Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: 08162-GELS Lab. report no(s): 21-16929-1											

Assessment of Chemicals of Potential Concern to Human Health



Soil Type							SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	
All values in mg/kg unless otherwise stated							Location & Depth	V-01-SS-0	V-02-SS-0	V-03-SS-0	V-04-SS-0	V-05-SS-0	V-06-SS-0	V-07-SS-0	V-08-SS-0	V-10-SS-0	V-11-SS-0	V-12-SS-0	V-17-SS-0	V-18-SS-0	V-19-SS-0	V-20-SS-0	
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.4	0.35	0.3	0.7	0.4	0.4	0.4	0.6	0.5	0.4	0.35	0.4	0.4	0.35	0.4		
Aliphatics EC5-EC6	0.01	0	0	0	0	300																	
Aliphatics >EC6-EC8	0.01	27	0.1	0.1	0	600000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Aliphatics >EC8-EC10	0.01	27	0.1	0.1	0	13000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Aliphatics >EC10-EC12	10	27	10	24	0	13000	10	10	10	10	10	10	10	10	10	10	10	10	10	18	10		
Aliphatics >EC12-EC16	10	27	10	24	0	13000	10	10	10	10	10	10	10	10	10	10	10	10	10	18	10		
Aliphatics >EC16-EC35	10	27	10	160	0	250000	10	10	10	10	10	10	10	10	10	10	10	10	10	160	10		
Aliphatics >EC35-EC44	10	27	10	160	0	250000	10	10	10	10	10	10	10	10	10	10	10	10	10	160	10		
Aromatics EC5-EC7	0.01	27	0.1	0.1	0	56000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Aromatics >EC7-EC8	0.01	27	0.1	0.1	0	56000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Aromatics >EC8-EC10	0.01	27	0.1	0.1	0	5000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Aromatics >EC10-EC12	10	27	10	24	0	5000	10	10	10	10	10	10	10	10	10	10	10	10	10	18	10		
Aromatics >EC12-EC16	10	27	10	24	0	5000	10	10	10	10	10	10	10	10	10	10	10	10	10	18	10		
Aromatics >EC16-EC21	10	27	10	24	0	3800	10	10	10	10	10	10	10	10	10	10	10	10	10	18	10		
Aromatics >EC21-EC35	10	27	10	160	0	3800	10	10	10	10	10	10	10	10	10	10	10	10	10	160	10		
Aromatics >EC35-EC44	0.1	0	0	0	0	3800																	
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION																
Aliphatics EC5-EC6																							
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Aliphatics >EC10-EC12						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
	Aliphatics >EC12-EC16						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
	Aliphatics >EC16-EC35						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000		
Aliphatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	
Aromatics EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Aromatics >EC10-EC12						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.002		
	Aromatics >EC12-EC16						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.002		
	Aromatics >EC16-EC21						0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.005	0.003		
Considered additive	Aromatics >EC21-EC35						0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.042	0.003	
Aromatics >EC35-EC44																							
Hazard Index for ali>C8-C16							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002
Hazard Index for aro>C8-C16							0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.007	0.004
Hazard Index for aro>C16-C35							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.047	0.005
Risk parameter: Human health - POS resi (1%SOM)							Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																
Data set: Subsoil							Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.																
Client: Taylor Wimpey							Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).																
Site: Kestrel Park, Bursledon							MG denotes Made Ground																
Job no.: 08162-GELS							NAT denotes natural ground																
Lab. report no(s).: 21-16929-1																							

Assessment of Chemicals of Potential Concern to Human Health



Soil Type							ss	ss	ss	ss	ss	ss	ss	ss	ss	ss	ss	ss	
All values in mg/kg unless otherwise stated							Location & Depth	V-24-SS-0	V-23-SS-0	V-22-SS-0	V-21-SS-0	V-25-SS-0	V-26-SS-0	V-27-SS-0	V-28-SS-0	V-32-SS-0	V-31-SS-0	V-30-SS-0	V-29-SS-0
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.3	0.4	0.4	0.4	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.6	
Aliphatics EC5-EC6	0.01	0	0	0	0	300													
Aliphatics >EC6-EC8	0.01	27	0.1	0.1	0	600000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Aliphatics >EC8-EC10	0.01	27	0.1	0.1	0	13000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Aliphatics >EC10-EC12	10	27	10	24	0	13000	10	10	10	10	10	10	10	10	10	24	10	10	
Aliphatics >EC12-EC16	10	27	10	24	0	13000	10	10	10	10	10	10	10	10	10	24	10	10	
Aliphatics >EC16-EC35	10	27	10	160	0	250000	10	10	10	10	10	10	10	10	10	13	10	10	
Aliphatics >EC35-EC44	10	27	10	160	0	250000	10	10	10	10	10	10	10	10	10	13	10	10	
Aromatics EC5-EC7	0.01	27	0.1	0.1	0	56000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Aromatics >EC7-EC8	0.01	27	0.1	0.1	0	56000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Aromatics >EC8-EC10	0.01	27	0.1	0.1	0	5000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Aromatics >EC10-EC12	10	27	10	24	0	5000	10	10	10	10	10	10	10	10	10	24	10	10	
Aromatics >EC12-EC16	10	27	10	24	0	5000	10	10	10	10	10	10	10	10	10	24	10	10	
Aromatics >EC16-EC21	10	27	10	24	0	3800	10	10	10	10	10	10	10	10	10	24	10	10	
Aromatics >EC21-EC35	10	27	10	160	0	3800	10	10	10	10	10	10	10	10	10	13	10	10	
Aromatics >EC35-EC44	0.1	0	0	0	0	3800													
ADDITIVITY CHECK																			
Aliphatics EC5-EC6																			
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Aliphatics >EC10-EC12						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	
	Aliphatics >EC12-EC16						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	
	Aliphatics >EC16-EC35						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Aliphatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Aromatics EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Aromatics >EC10-EC12						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.002	0.002	
	Aromatics >EC12-EC16						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.002	0.002	
	Aromatics >EC16-EC21						0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.006	0.003	0.003	
Considered additive	Aromatics >EC21-EC35						0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
Aromatics >EC35-EC44																			
Hazard Index for ali>C8-C16							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002
Hazard Index for aro>C8-C16							0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.010	0.004	0.004
Hazard Index for aro>C16-C35							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.010	0.005	0.005
Risk parameter: Human health - POS resi (1%SOM)																			
Data set: Subsoil																			
Client: Taylor Wimpey																			
Site: Kestrel Park, Bursledon																			
Job no.: 08162-GELS																			
Lab. report no(s).: 21-16929-1																			

Assessment of Chemicals of Potential Concern to Human Health



Soil Type						ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts																					
All values in mg/kg unless otherwise stated						Location & Depth																				PV-01-TS-0.1	PV-02-TS-0.1	PV-03-TS-0.1	PV-04-TS-0.1	PV-07-TS-0.1	PV-08-TS-0.1	PV-10-TS-0.1	PV-12-TS-0.1	PV-16-TS-0.2	PV-17-TS-0.1	PV-19-TS-0.1	PV-24-TS-0.1	PV-22-TS-0.1	PV-25-TS-0.2	PV-27-TS-0.1	PV-29-TS-0.1	PV-13-TS-0.2	PV-33-TS-0.1	PV-11-TS-0.1				
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts	ts																				
							0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1																	
Aliphatics <EC5-EC6	0.01	0	0	0	0	300																																										
Aliphatics >EC6-EC8	0.01	19	0.1	0.1	0	600000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																
Aliphatics >EC8-EC10	0.01	19	0.1	0.1	0	13000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																	
Aliphatics >EC10-EC12	10	19	10	10	0	13000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aliphatics >EC12-EC16	10	19	10	10	0	13000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aliphatics >EC16-EC35	10	19	10	10	0	250000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aliphatics >EC35-EC44	10	19	10	10	0	250000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aromatics <EC5-EC7	0.01	19	0.1	0.1	0	56000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																	
Aromatics >EC7-EC8	0.01	19	0.1	0.1	0	56000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																	
Aromatics >EC8-EC10	0.01	19	0.1	0.1	0	5000	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																	
Aromatics >EC10-EC12	10	19	10	10	0	5000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aromatics >EC12-EC16	10	19	10	10	0	5000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aromatics >EC16-EC21	10	19	10	10	0	3800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aromatics >EC21-EC35	10	19	10	10	0	3800	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10																
Aromatics >EC35-EC44	0.1	0	0	0	0	3800																																										
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION																																									
Aliphatics <EC5-EC6																																																
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000															
Considered additive Aliphatics >EC8-EC10							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000														
Considered additive Aliphatics >EC10-EC12							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001													
Considered additive Aliphatics >EC12-EC16							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001													
Aliphatics >EC16-EC35							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000															
Aliphatics >EC35-EC44							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000															
Aromatics <EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000															
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000															
Considered additive Aromatics >EC8-EC10							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000														
Considered additive Aromatics >EC10-EC12							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002													
Considered additive Aromatics >EC12-EC16							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002													
Considered additive Aromatics >EC16-EC21							0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003													
Considered additive Aromatics >EC21-EC35							0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003													
Aromatics >EC35-EC44																																																
Hazard Index for ali>C8-C16							0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002															
Hazard Index for aro>C8-C16							0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004															
Hazard Index for aro>C16-C35							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005															
Risk parameter: Human health - POS resi (1%SOM)							Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																																									
Data set: Topsoil							Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are																																									
Client: Taylor Wimpey							considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.																																									
Site: Kestrel Park, Bursledon							Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).																																									
Job no.: 08162-GELS							MG denotes Made Ground																																									
Lab. report no(s).: 21-16929-1							NAT denotes natural ground																																									

*Laboratory testing and contamination assessment for the subsoil
stockpile*

Assessment of Chemicals of Potential Concern to Plant Life



Soil Type							SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS			
All values in mg/kg unless otherwise stated							Location & Depth		SSV01	SSV01	SSV02	SSV03	SSV04	SSV04	SSV05	SSV06	SSV06	SSV07	SSV07	SSV08	SSV09	SSV09	SSV10
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	1.00	0.50	1.00	2.00	1.50	0.50	2.00	1.50	0.50	1.00	0.50	1.50	1.00	0.50	1.00		
	Arsenic	1	21	2.5	15	0	250	8.2	15	6.5	9.4	3.3	11	12	6.1	7.6	10	6.5	3.6	9.8	9.8	2.5	
	Boron	0.2	21	0.5	1.1	0	3	0.8	0.7	0.6	0.8	1.1	0.6	0.8	0.5	0.8	0.7	0.7	1	0.5	0.6	0.5	
	Chromium (III)	1	21	13	35	0	400	30	27	23	35	18	19	19	20	13	23	31	30	24	25	26	
	Chromium (VI)	1.2	21	1.2	1.2	0	25	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
	Copper	1	21	10	44	0	135	18	20	11	17	24	22	26	17	31	14	14	16	19	15	10	
	Nickel	2	21	7.4	22	0	75	16	16	11	12	16	8.9	7.9	7.4	9.5	7.8	8.4	9.2	9.8	10	10	
	Zinc	2	21	30	92	0	300	32	42	30	91	68	70	54	53	87	38	37	51	50	41	35	
	Mean																						
pH (su)	7.9						7.1	7.2	7.3	11	8.1	10.5	8.1	10.7	7.2	7.8	8.1	7.7	7.9	8.1	7.3		
Risk parameter: Plant life pH 7 Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: C-08162 Lab. report no(s): 19-65538-1 Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground																							

Assessment of Chemicals of Potential Concern to Plant Life



All values in mg/kg unless otherwise stated							Soil Type	SS	SS	SS	SS	SS	SS			
Location & Depth								SSV11	SSV12	SSV13	SSV14	SSV15	SSV16			
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC		0.50	0.20	0.45	0.25	0.50	0.30			
Arsenic	1	21	2.5	15	0	250		9	10	14	7.5	11	8.3			
Boron	0.2	21	0.5	1.1	0	3		0.5	0.7	0.8	0.7	0.6	0.8			
Chromium (III)	1	21	13	35	0	400		19	21	24	22	18	17			
Chromium (VI)	1.2	21	1.2	1.2	0	25		1.2	1.2	1.2	1.2	1.2	1.2			
Copper	1	21	10	44	0	135		32	43	28	27	44	41			
Nickel	2	21	7.4	22	0	75		11	15	10	22	10	9.2			
Zinc	2	21	30	92	0	300		74	92	59	56	89	86			
	Mean															
pH (su)	7.9							7.1	6.8	7.5	7.4	6.9	6.6			
Risk parameter: Plant life pH 7 Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: C-08162 Lab. report no(s): 19-65538-1																

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated								Soil Type	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS						
								Location & Depth	SSV01	SSV01	SSV02	SSV03	SSV04	SSV04	SSV05	SSV06	SSV06	SSV07	SSV07	SSV08	SSV09	SSV09	SSV10					
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test		1.00	0.50	1.00	2.00	1.50	0.50	2.00	1.50	0.50	1.00	0.50	1.50	1.00	0.50	1.00					
Aliphatics EC5-EC6	0.01	21	0.001	0.001	0	42	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001					
Aliphatics >EC6-EC8	0.01	21	0.001	0.001	0	100	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001					
Aliphatics >EC8-EC10	0.01	21	0.001	0.001	0	27	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001					
Aliphatics >EC10-EC12	0.01	21	1	13	0	48	POTENTIALLY SUITABLE FOR USE		1	1	1	1	1	1	13	1	1	1	1	1	1	1	1					
Aliphatics >EC12-EC16	0.1	21	2	18	0	24	POTENTIALLY SUITABLE FOR USE		2	2	2	2	2	2	18	2	2	2	2	2	2	2	2					
Aliphatics >EC16-EC35	0.1	0	0	0	0	65000																						
Aliphatics >EC35-EC44	0.1	21	8.4	61	0	65000	POTENTIALLY SUITABLE FOR USE		8.4	8.4	8.4	8.4	8.4	8.4	61	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4					
Aromatics EC5-EC7	0.01	21	0.001	0.001	0	73	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001					
Aromatics >EC7-EC8	0.01	21	0.001	0.001	0	130	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001					
Aromatics >EC8-EC10	0.01	21	0.001	0.001	0	35	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001					
Aromatics >EC10-EC12	0.01	21	1	1	0	75			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
Aromatics >EC12-EC16	0.1	21	2	4.2	0	150	POTENTIALLY SUITABLE FOR USE		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2					
Aromatics >EC16-EC21	0.1	21	10	19	0	260	POTENTIALLY SUITABLE FOR USE		10	10	10	10	10	10	16	10	10	10	10	10	10	10	10					
Aromatics >EC21-EC35	0.1	21	10	76	0	1100	POTENTIALLY SUITABLE FOR USE		10	10	10	10	55	32	76	10	30	10	10	10	10	10	10					
Aromatics >EC35-EC44	0.1	21	8.4	36	0	1100	POTENTIALLY SUITABLE FOR USE		8.4	8.4	8.4	8.4	29	22	36	8.4	20	8.4	8.4	8.4	8.4	8.4	8.4					
ADDITIVITY CHECK								HAZARD QUOTIENTS FOR EACH FRACTION																				
Considered additive								Aliphatics EC5-EC6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
								Aliphatics >EC6-EC8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
								Aliphatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
								Aliphatics >EC10-EC12	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.271	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021
								Aliphatics >EC12-EC16	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.750	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083
Considered additive								Aliphatics >EC16-EC35																				
								Aliphatics >EC35-EC44	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
								Aromatics EC5-EC7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
								Aromatics >EC7-EC8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
								Aromatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Considered additive								Aromatics >EC10-EC12	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013		
								Aromatics >EC12-EC16	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
								Aromatics >EC16-EC21	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.062	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038
								Aromatics >EC21-EC35	0.009	0.009	0.009	0.009	0.050	0.029	0.069	0.009	0.027	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
								Aromatics >EC35-EC44	0.008	0.008	0.008	0.008	0.026	0.020	0.033	0.008	0.018	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
								Hazard Index for ali>C8-C16	0.104	0.104	0.104	0.104	0.104	0.104	1.021	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104	0.104				
								Hazard Index for aro>C8-C16	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027				
								Hazard Index for aro>C16-C35	0.048	0.048	0.048	0.048	0.088	0.068	0.131	0.048	0.066	0.048	0.048	0.048	0.048	0.048	0.048	0.048				
Risk parameter: Human health - residential with plant uptake (1%SOM)								Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																				
Data set: Subsoil								Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC). SS denotes subsoil																				
Client: Taylor Wimpey																												
Site: Kestrel Park, Bursledon																												
Job no.: C08162																												
Lab. report no(s).: 19-65538-1																												

Assessment of Chemicals of Potential Concern to Human Health



All values in mg/kg unless otherwise stated								Soil Type	SS	SS	SS	SS	SS	SS		
								Location & Depth	SSV11	SSV12	SSV13	SSV14	SSV15	SSV16		
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Result of Significance Test		0.50	0.20	0.45	0.25	0.50	0.30		
Aliphatics EC5-EC6	0.01	21	0.001	0.001	0	42	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC6-EC8	0.01	21	0.001	0.001	0	100	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC8-EC10	0.01	21	0.001	0.001	0	27	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC10-EC12	0.01	21	1	13	0	48	POTENTIALLY SUITABLE FOR USE		1	1	1	1	1	1		
Aliphatics >EC12-EC16	0.1	21	2	18	0	24	POTENTIALLY SUITABLE FOR USE		2	2	2	2	2	2		
Aliphatics >EC16-EC35	0.1	0	0	0	0	65000										
Aliphatics >EC35-EC44	0.1	21	8.4	61	0	65000	POTENTIALLY SUITABLE FOR USE		8.4	8.4	8.4	8.4	8.4	8.4		
Aromatics EC5-EC7	0.01	21	0.001	0.001	0	73	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC7-EC8	0.01	21	0.001	0.001	0	130	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC8-EC10	0.01	21	0.001	0.001	0	35	POTENTIALLY SUITABLE FOR USE		0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC10-EC12	0.01	21	1	1	0	75			1	1	1	1	1	1		
Aromatics >EC12-EC16	0.1	21	2	4.2	0	150	POTENTIALLY SUITABLE FOR USE		2	2.8	2	2	2	4.2		
Aromatics >EC16-EC21	0.1	21	10	19	0	260	POTENTIALLY SUITABLE FOR USE		18	19	13	10	12	10		
Aromatics >EC21-EC35	0.1	21	10	76	0	1100	POTENTIALLY SUITABLE FOR USE		42	64	36	18	53	26		
Aromatics >EC35-EC44	0.1	21	8.4	36	0	1100	POTENTIALLY SUITABLE FOR USE		8.4	9.4	12	8.4	8.4	8.4		
ADDITIVITY CHECK																
								Aliphatics EC5-EC6	0.000	0.000	0.000	0.000	0.000	0.000		
								Aliphatics >EC6-EC8	0.000	0.000	0.000	0.000	0.000	0.000		
Considered additive								Aliphatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000		
								Aliphatics >EC10-EC12	0.021	0.021	0.021	0.021	0.021	0.021		
								Aliphatics >EC12-EC16	0.083	0.083	0.083	0.083	0.083	0.083		
								Aliphatics >EC16-EC35								
								Aliphatics >EC35-EC44	0.000	0.000	0.000	0.000	0.000	0.000		
								Aromatics EC5-EC7	0.000	0.000	0.000	0.000	0.000	0.000		
								Aromatics >EC7-EC8	0.000	0.000	0.000	0.000	0.000	0.000		
Considered additive								Aromatics >EC8-EC10	0.000	0.000	0.000	0.000	0.000	0.000		
								Aromatics >EC10-EC12	0.013	0.013	0.013	0.013	0.013	0.013		
								Aromatics >EC12-EC16	0.013	0.019	0.013	0.013	0.013	0.028		
Considered additive								Aromatics >EC16-EC21	0.069	0.073	0.050	0.038	0.046	0.038		
								Aromatics >EC21-EC35	0.038	0.058	0.033	0.016	0.048	0.024		
								Aromatics >EC35-EC44	0.008	0.009	0.011	0.008	0.008	0.008		
								Hazard Index for ali>C8-C16	0.104	0.104	0.104	0.104	0.104	0.104		
								Hazard Index for aro>C8-C16	0.027	0.032	0.027	0.027	0.027	0.041		
								Hazard Index for aro>C16-C35	0.107	0.131	0.083	0.055	0.094	0.062		
Risk parameter: Human health - residential with plant uptake (1%SOM) Data set: Subsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: C08162 Lab. report no(s).: 19-65538-1																

**Myfanwy Wood**

Hydrock Consultants Ltd
Suite 8
White Building
1-4 Cumberland Place
Southampton
Hampshire
SO15 2NP

e: myfanwywood@hydrock.com

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

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

Analytical Report Number : 19-65538

Replaces Analytical Report Number : 19-65538, issue no. 1

Project / Site name:	Bursledon Kestrel Park	Samples received on:	10/10/2019
Your job number:	C08162	Samples instructed on:	11/10/2019
Your order number:		Analysis completed by:	08/01/2020
Report Issue Number:	2	Report issued on:	08/01/2020
Samples Analysed:	21 soil samples		

Sig

Zina Abdul Razzak
Senior Quality Specialist

For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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

Iss No 19-65538-2 Bursledon Kestrel Park C08162

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The results included within the report are representative of the samples submitted for analysis.

Page 1 of 36

Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329019	1329020	1329021	1329022	1329023
Sample Reference				SSV01	SSV01	SSV02	SSV03	SSV04
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.50	1.00	2.00	1.50
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	25	18	< 0.1	< 0.1	36
Moisture Content	%	N/A	NONE	9.5	8.4	11	9.7	8.0
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.4	1.5	1.4

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	Chrysotile	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	< 0.001	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	< 0.001	< 0.001

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	7.2	7.3	11.0	8.1
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.40	0.19	0.084	0.28	0.38
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.0067	0.0084	0.0096	0.0061	0.015

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	0.42
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.28	0.39
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.23
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.36
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.34
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.22
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.27
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	< 0.80	2.23
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Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number	1329019	1329020	1329021	1329022	1329023
Sample Reference	SSV01	SSV01	SSV02	SSV03	SSV04
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.00	0.50	1.00	2.00	1.50
Date Sampled	09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.2	15	6.5	9.4	3.3
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.38	0.83	0.37	0.42	0.34
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	0.7	0.6	0.8	1.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.3	< 0.2	0.3	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	30	27	23	35	18
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	27	24	35	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	18	20	11	17	24
Lead (aqua regia extractable)	mg/kg	1	MCERTS	21	28	23	31	55
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	16	11	12	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	1.6
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	45	40	30	29	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	32	42	30	91	68

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	55
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	29

Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329024	1329025	1329026	1329027	1329028
Sample Reference				SSV04	SSV05	SSV06	SSV06	SSV07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.50	0.50	1.00
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	17	11	12	14
Total mass of sample received	kg	0.001	NONE	1.3	1.4	1.3	1.3	1.4

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.5	8.1	10.7	7.2	7.8
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.61	0.24	0.23	0.17	0.21
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.013	0.015	0.018	0.033	0.011

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.1	0.34	< 0.05	0.42	0.20
Anthracene	mg/kg	0.05	MCERTS	0.25	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.2	1.4	0.28	1.1	0.59
Pyrene	mg/kg	0.05	MCERTS	1.0	1.3	0.31	1.1	0.59
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.85	1.2	0.29	0.68	0.51
Chrysene	mg/kg	0.05	MCERTS	0.63	0.97	0.27	0.73	0.41
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.65	1.7	0.39	0.87	0.74
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.58	0.69	0.19	0.39	0.43
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.70	1.4	0.33	0.79	0.67
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.39	0.82	0.22	0.49	0.41
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.23	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.47	1.2	0.33	0.58	0.55

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	7.79	11.2	2.61	7.14	5.10
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Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329024	1329025	1329026	1329027	1329028
Sample Reference				SSV04	SSV05	SSV06	SSV06	SSV07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.50	0.50	1.00
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	12	6.1	7.6	10
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.42	0.38	0.26	0.33	0.34
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.8	0.5	0.8	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2	< 0.2	0.5	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	19	19	20	13	23
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	20	20	14	24
Copper (aqua regia extractable)	mg/kg	1	MCERTS	22	26	17	31	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	48	55	33	66	25
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.9	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.9	7.9	7.4	9.5	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	25	23	25	21	33
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	70	54	53	87	38

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	13	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	18	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	17	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	85	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	61	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	10	16	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	32	76	< 10	30	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	22	36	< 8.4	20	< 8.4

Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329029	1329030	1329031	1329032	1329033
Sample Reference				SSV07	SSV08	SSV09	SSV09	SSV10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.50	1.00	0.50	1.00
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	11	12	14	12	13
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.3	1.5	1.4

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.002	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.002	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	7.7	7.9	8.1	7.3
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.26	0.47	0.21	0.19	0.12
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.0087	0.0077	0.013	0.010	0.0086

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.39	0.28	0.26	0.17	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.60	0.63	0.54	0.37	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.53	0.57	0.46	0.33	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.41	0.43	0.30	0.24	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.38	0.43	0.39	0.26	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.35	0.43	0.36	0.26	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.30	0.29	0.27	0.21	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.37	0.45	0.36	0.24	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.21	0.24	0.21	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.27	0.36	0.25	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.81	4.11	3.40	2.08	< 0.80
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Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329029	1329030	1329031	1329032	1329033
Sample Reference				SSV07	SSV08	SSV09	SSV09	SSV10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.50	1.00	0.50	1.00
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.5	3.6	9.8	9.8	2.5
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.44	0.39	0.41	0.37	0.34
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	1.0	0.5	0.6	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	31	30	24	25	26
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	32	31	25	25	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	14	16	19	15	10
Lead (aqua regia extractable)	mg/kg	1	MCERTS	20	25	43	28	23
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.5	< 0.3	0.7
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.4	9.2	9.8	10	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	34	38	31	32	38
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37	51	50	41	35

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329034	1329035	1329036	1329037	1329038
Sample Reference				SSV11	SSV12	SSV13	SSV14	SSV15
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.45	0.25	0.50
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	12	< 0.1	60	< 0.1
Moisture Content	%	N/A	NONE	13	10	12	5.5	16
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.3	1.3	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	6.8	7.5	7.4	6.9
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.071	0.028	0.14	0.12	0.037
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.030	0.035	0.016	0.018	0.037

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.40	0.48	< 0.05	0.32	0.54
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.11	< 0.05	< 0.05	0.12
Fluoranthene	mg/kg	0.05	MCERTS	1.2	1.6	0.56	1.0	1.6
Pyrene	mg/kg	0.05	MCERTS	1.2	1.4	0.54	0.99	1.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.92	1.1	0.47	0.70	0.98
Chrysene	mg/kg	0.05	MCERTS	0.88	1.1	0.39	0.73	1.2
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.1	1.0	0.58	0.77	1.3
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.72	1.1	0.18	0.64	0.83
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.0	1.2	0.48	0.77	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.62	0.78	0.23	0.45	0.77
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.22	< 0.05	< 0.05	0.24
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.75	0.88	0.30	0.63	0.92

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	8.78	10.9	3.73	7.02	11.2
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Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329034	1329035	1329036	1329037	1329038
Sample Reference				SSV11	SSV12	SSV13	SSV14	SSV15
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.45	0.25	0.50
Date Sampled				09/10/2019	09/10/2019	09/10/2019	09/10/2019	09/10/2019
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.0	10	14	7.5	11
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.37	0.49	0.40	0.26	0.34
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.7	0.8	0.7	0.6
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	0.4	< 0.2	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	19	21	24	22	18
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	21	24	22	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	32	43	28	27	44
Lead (aqua regia extractable)	mg/kg	1	MCERTS	91	120	71	48	120
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.0	< 0.3	0.7	1.1
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	15	10	22	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.5	2.4
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	24	24	32	20	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	74	92	59	56	89

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	2.8	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	18	19	13	< 10	12
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	42	64	36	18	53
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	9.4	12	< 8.4	< 8.4

Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number	1329039				
Sample Reference	SSV16				
Sample Number	None Supplied				
Depth (m)	0.30				
Date Sampled	09/10/2019				
Time Taken	None Supplied				

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	17				
Total mass of sample received	kg	0.001	NONE	1.4				

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-				
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected				
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-				
Asbestos Quantification Total	%	0.001	ISO 17025	-				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	6.6				
Free Cyanide	mg/kg	1	MCERTS	< 1				
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.024				
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.039				

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0				
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05				
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05				
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05				
Fluorene	mg/kg	0.05	MCERTS	< 0.05				
Phenanthrene	mg/kg	0.05	MCERTS	0.39				
Anthracene	mg/kg	0.05	MCERTS	< 0.05				
Fluoranthene	mg/kg	0.05	MCERTS	1.2				
Pyrene	mg/kg	0.05	MCERTS	1.1				
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.86				
Chrysene	mg/kg	0.05	MCERTS	0.82				
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.92				
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.64				
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.92				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.59				
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.71				

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	8.09				
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Analytical Report Number: 19-65538

Project / Site name: Bursledon Kestrel Park

Lab Sample Number				1329039				
Sample Reference				SSV16				
Sample Number				None Supplied				
Depth (m)				0.30				
Date Sampled				09/10/2019				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.3				
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.33				
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8				
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3				
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2				
Chromium (III)	mg/kg	1	NONE	17				
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	17				
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41				
Lead (aqua regia extractable)	mg/kg	1	MCERTS	160				
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.0				
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	9.2				
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0				
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	22				
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	86				

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0				
Toluene	µg/kg	1	MCERTS	< 1.0				
Ethylbenzene	µg/kg	1	MCERTS	< 1.0				
p & m-xylene	µg/kg	1	MCERTS	< 1.0				
o-xylene	µg/kg	1	MCERTS	< 1.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001				
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001				
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001				
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0				
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0				
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0				
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0				
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4				

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001				
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001				
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001				
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0				
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	4.2				
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10				
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	26				
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4				



Analytical Report Number: 19-65538
Project / Site name: Bursledon Kestrel Park
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1329022	SSV03	2.00	157	Loose Fibres	Chrysotile	< 0.001	< 0.001
1329023	SSV04	1.50	127	Loose Fibres	Chrysotile	< 0.001	< 0.001
1329024	SSV04	0.50	137	Loose Fibres	Chrysotile	< 0.001	< 0.001
1329030	SSV08	1.50	153	Loose Fibres & Hard/Cement Type Material	Chrysotile	0.002	0.002

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



Analytical Report Number : 19-65538

Project / Site name: Bursledon Kestrel Park

* 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 *
1329019	SSV01	None Supplied	1.00	Brown clay and sand with stones.
1329020	SSV01	None Supplied	0.50	Brown clay and sand with stones.
1329021	SSV02	None Supplied	1.00	Brown clay and sand with gravel.
1329022	SSV03	None Supplied	2.00	Brown clay and sand with gravel.
1329023	SSV04	None Supplied	1.50	Brown clay and sand with stones.
1329024	SSV04	None Supplied	0.50	Brown clay and sand with gravel.
1329025	SSV05	None Supplied	2.00	Brown clay and sand.
1329026	SSV06	None Supplied	1.50	Brown clay and sand with gravel.
1329027	SSV06	None Supplied	0.50	Brown clay and loam with gravel and vegetation.
1329028	SSV07	None Supplied	1.00	Brown clay and sand with gravel.
1329029	SSV07	None Supplied	0.50	Brown clay and sand with gravel.
1329030	SSV08	None Supplied	1.50	Brown clay and sand with gravel.
1329031	SSV09	None Supplied	1.00	Brown clay with gravel.
1329032	SSV09	None Supplied	0.50	Brown clay and loam with gravel.
1329033	SSV10	None Supplied	1.00	Brown loam and clay with gravel.
1329034	SSV11	None Supplied	0.50	Brown loam and clay with gravel.
1329035	SSV12	None Supplied	0.20	Brown loam and sand with stones and gravel
1329036	SSV13	None Supplied	0.45	Brown loam and clay with gravel.
1329037	SSV14	None Supplied	0.25	Brown loam and clay with stones and gravel
1329038	SSV15	None Supplied	0.50	Brown loam and sand with gravel and vegetation.
1329039	SSV16	None Supplied	0.30	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 19-65538

Project / Site name: Bursledon Kestrel Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
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	L038-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
Fraction of Organic Carbon in soil	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L009-PL	D	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In-house method based on BS1377 Part 2, 1990, Classification tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
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.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE

Iss No 19-65538-2 Bursledon Kestrel Park C08162

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The results included within the report are representative of the samples submitted for analysis.

Page 14 of 36



Analytical Report Number : 19-65538

Project / Site name: Bursledon Kestrel Park

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

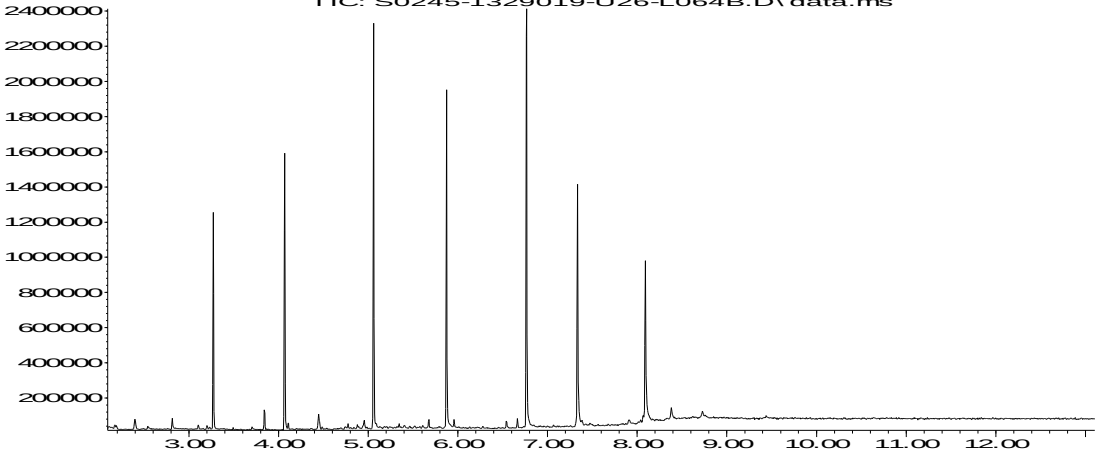
For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

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

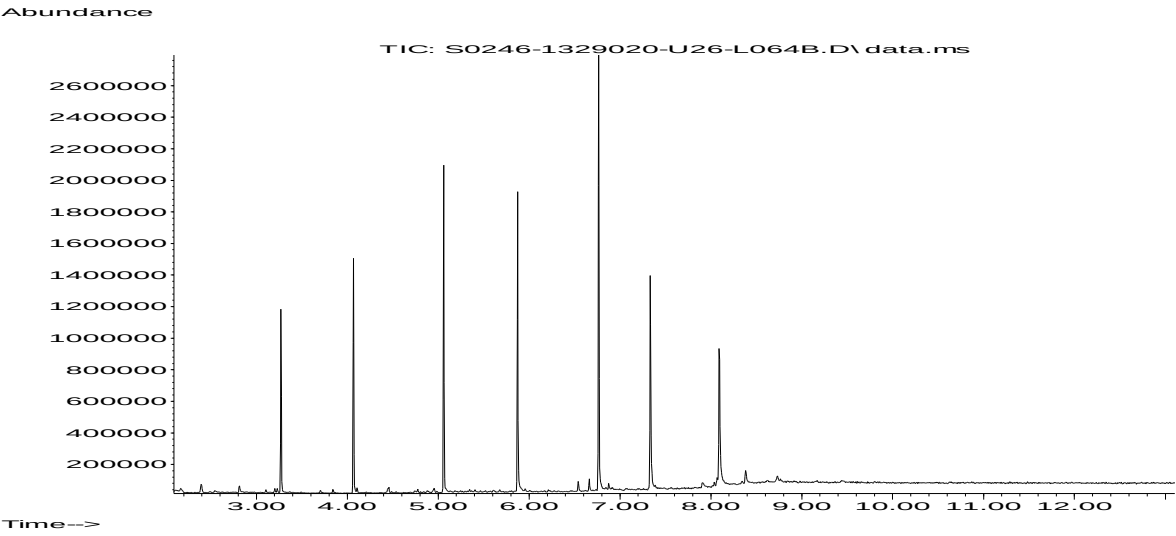
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Abundance

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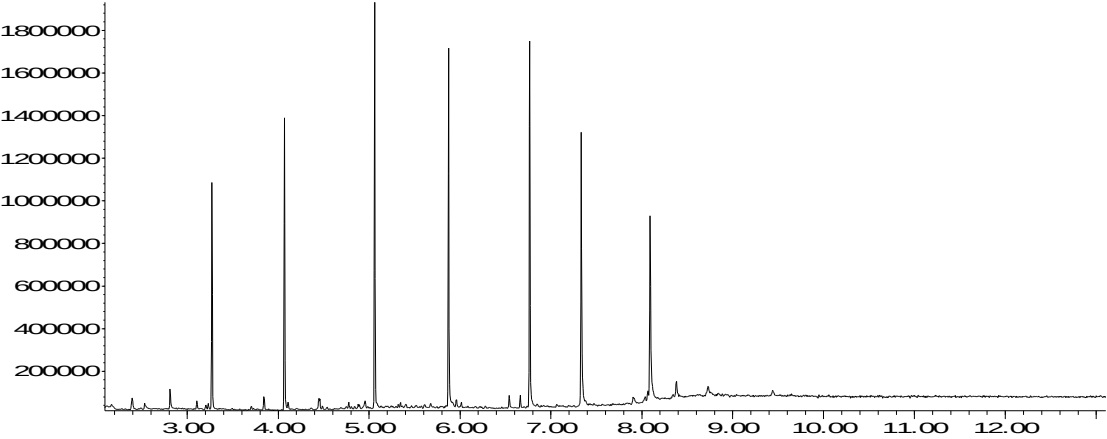


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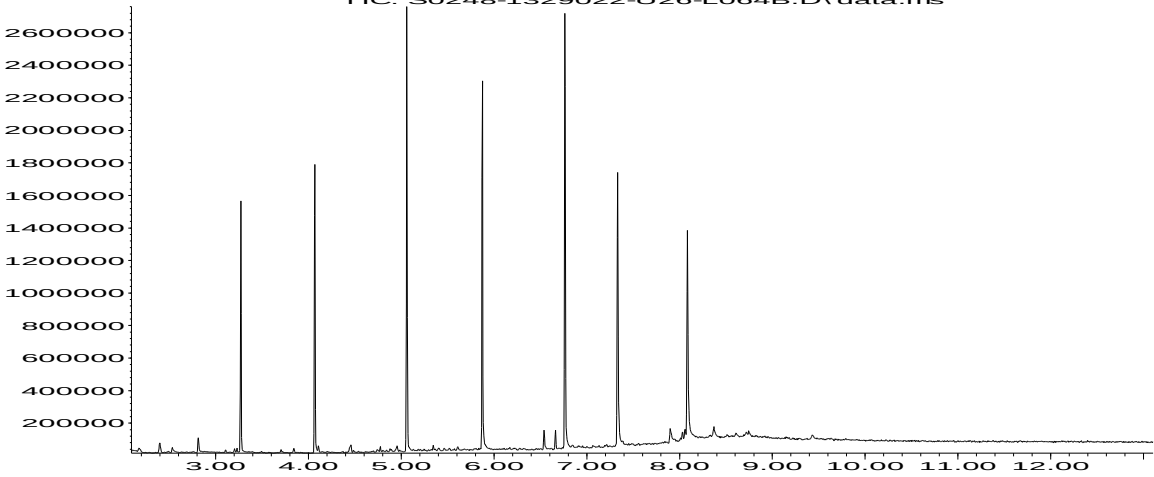
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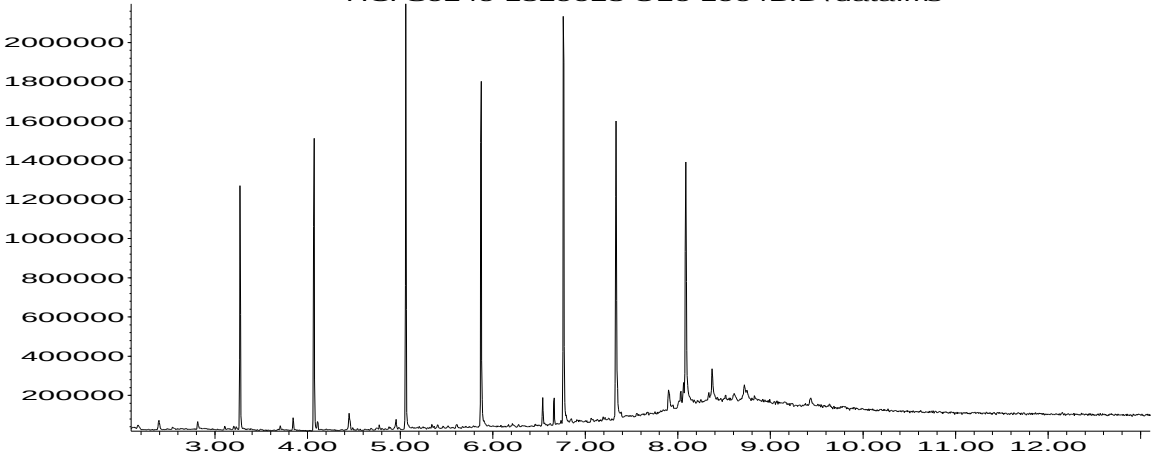
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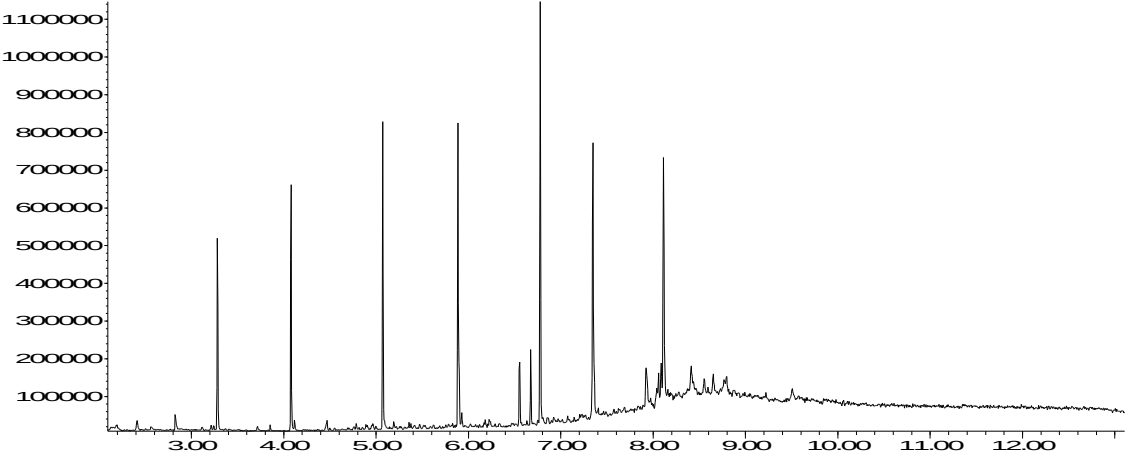
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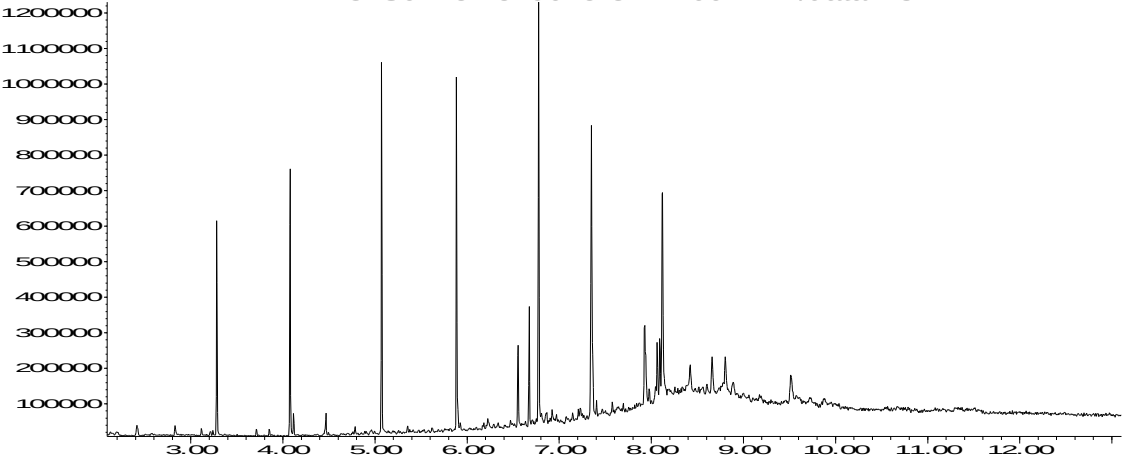
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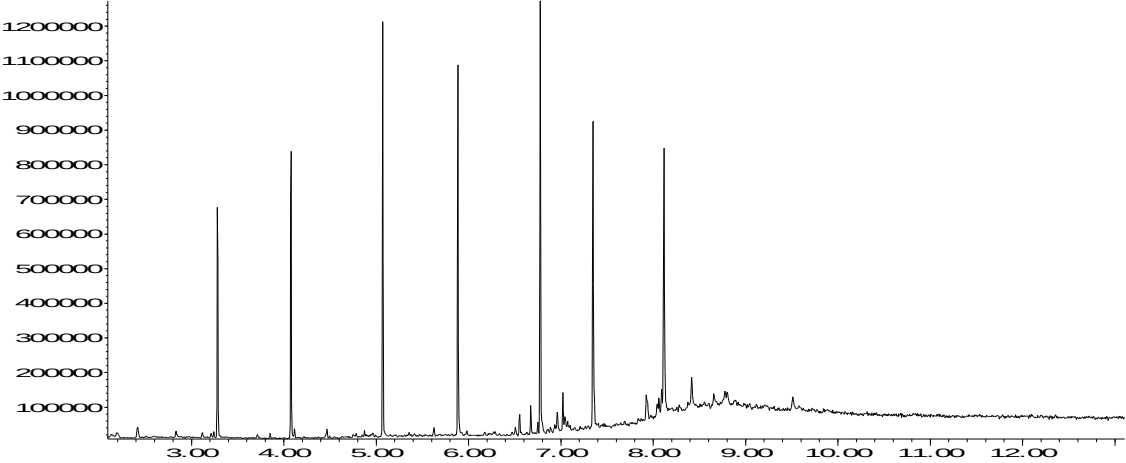
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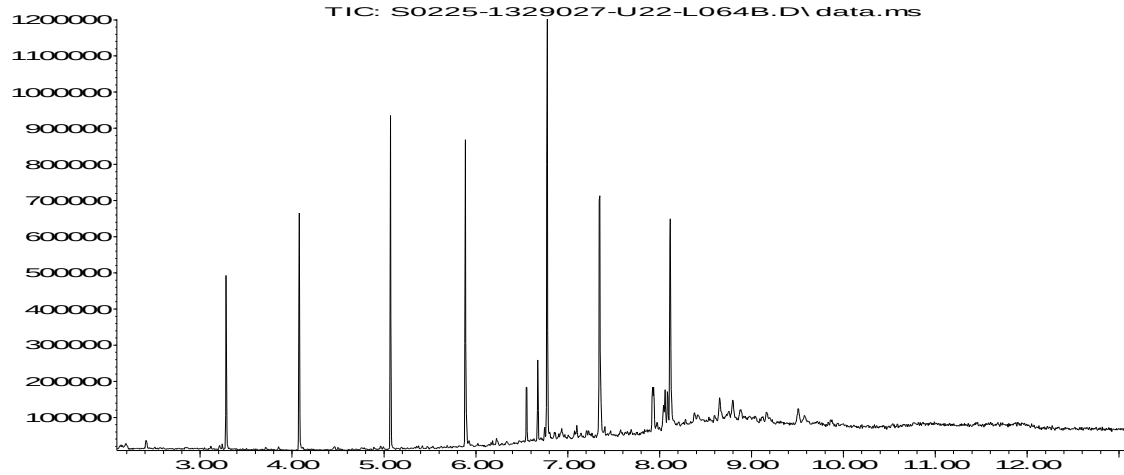
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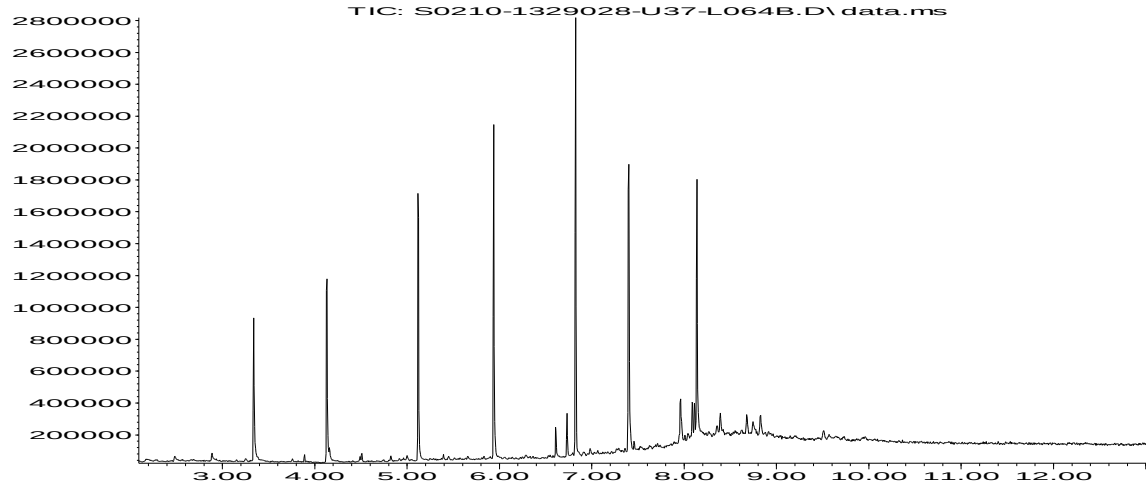
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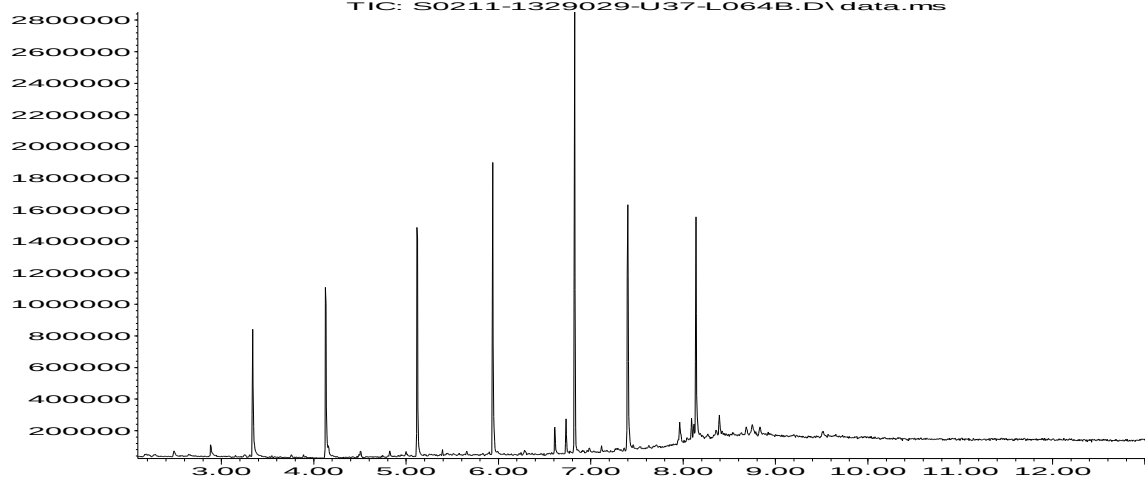
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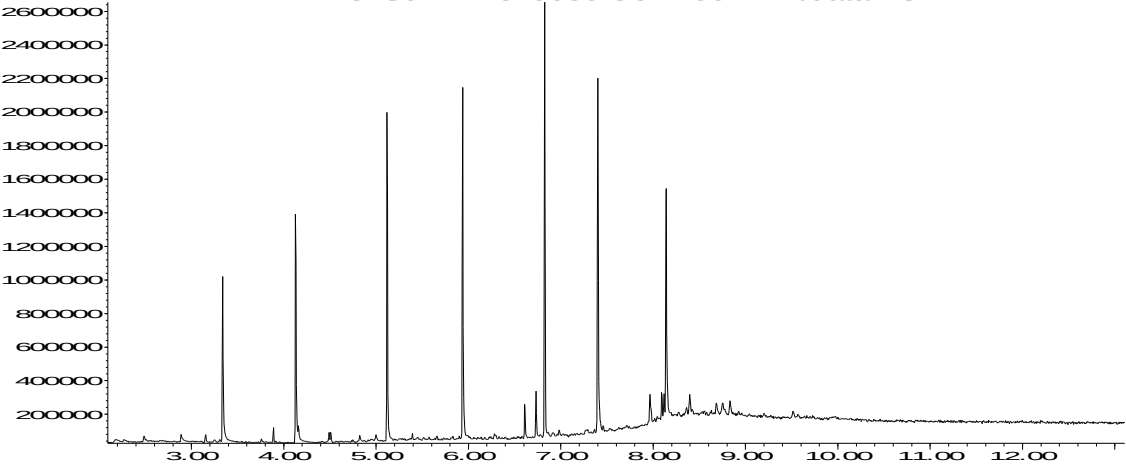
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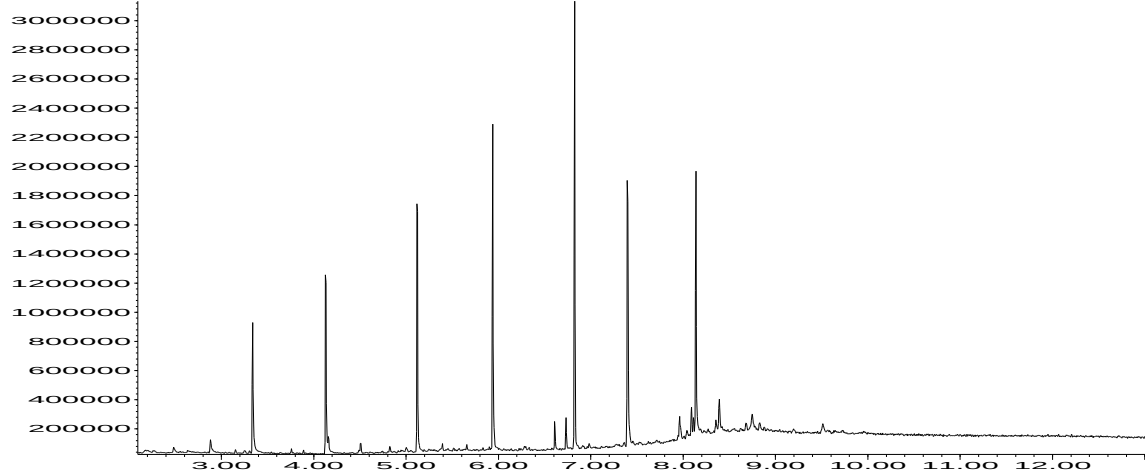
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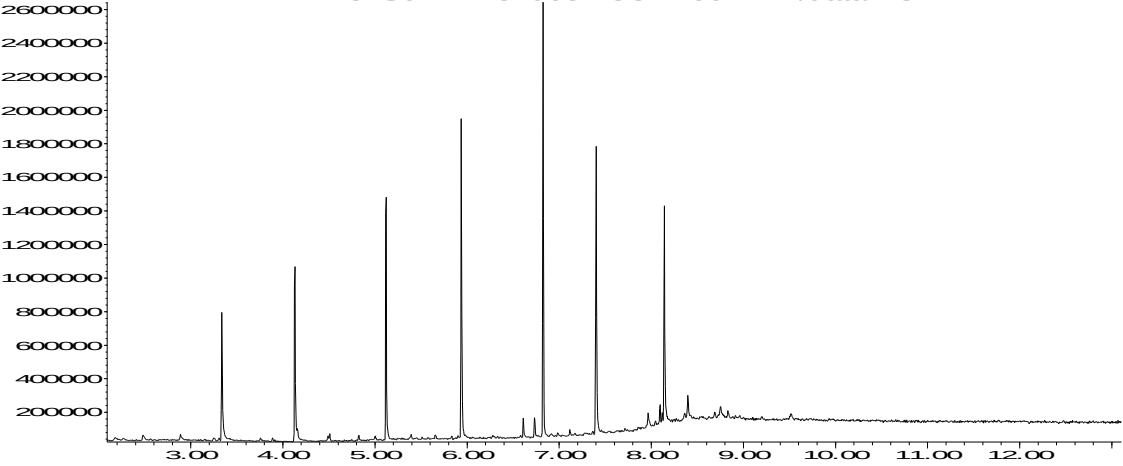
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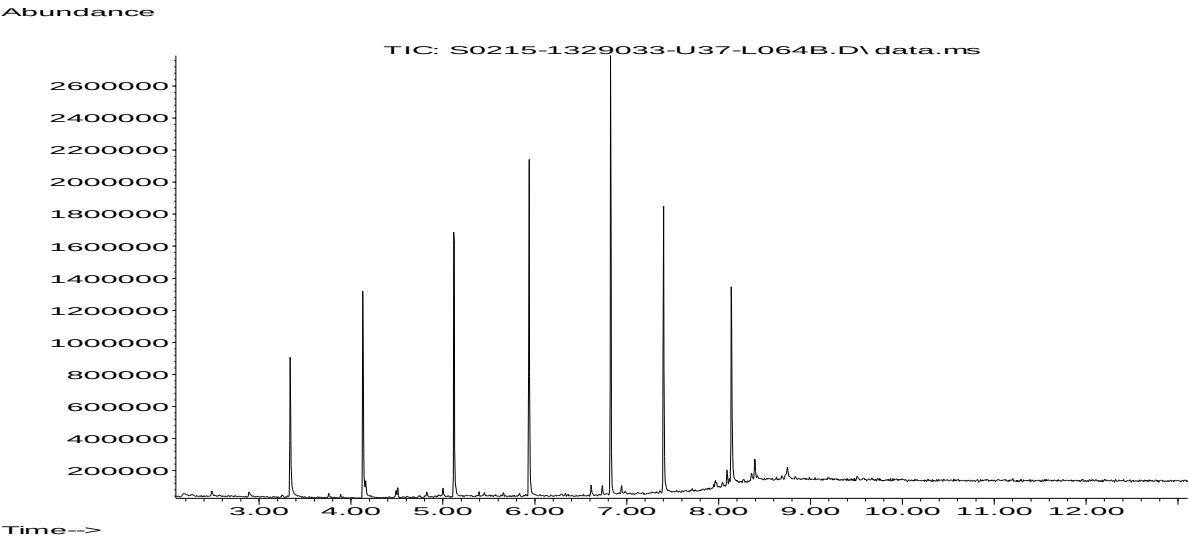
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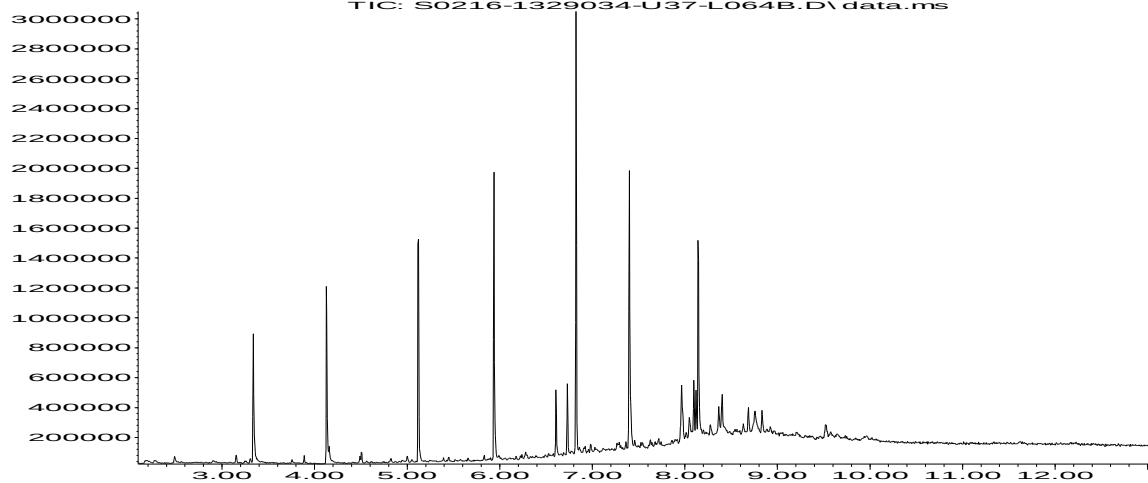


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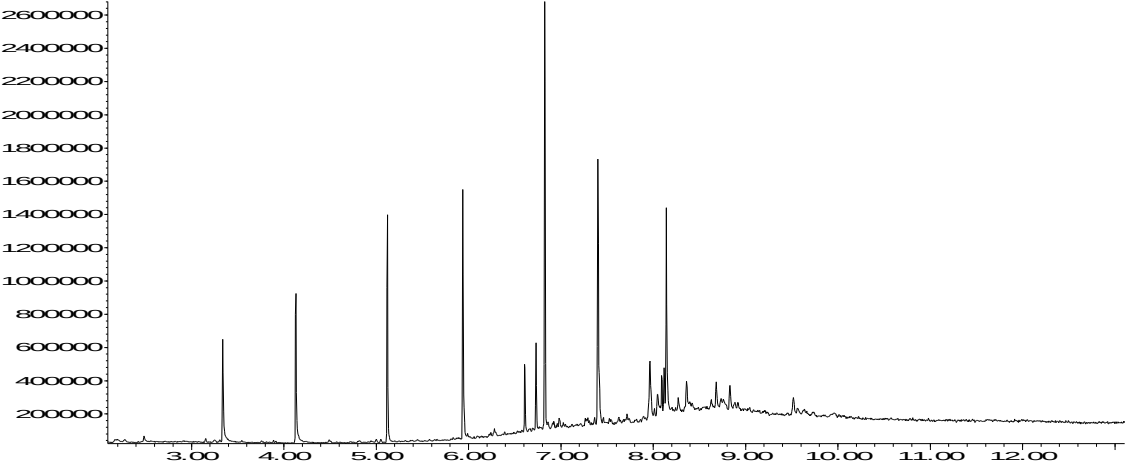
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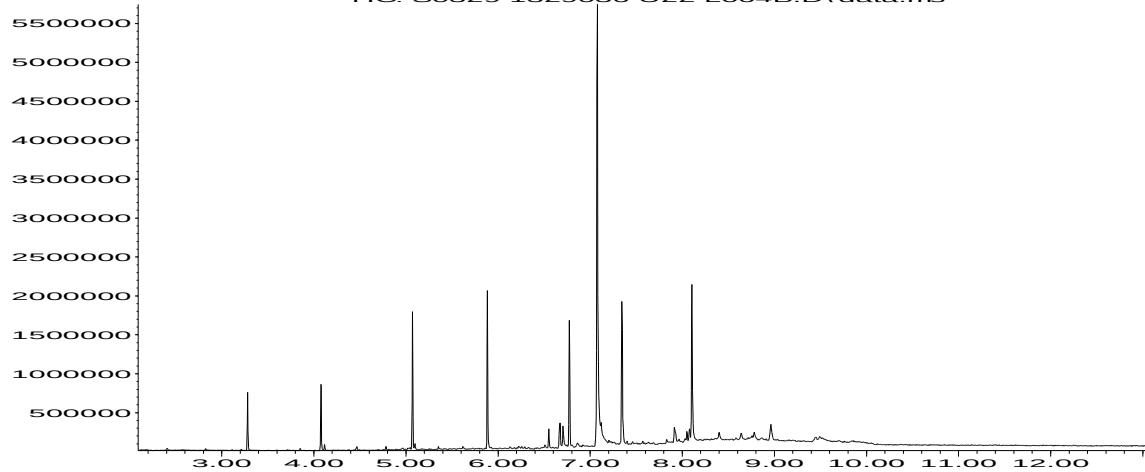
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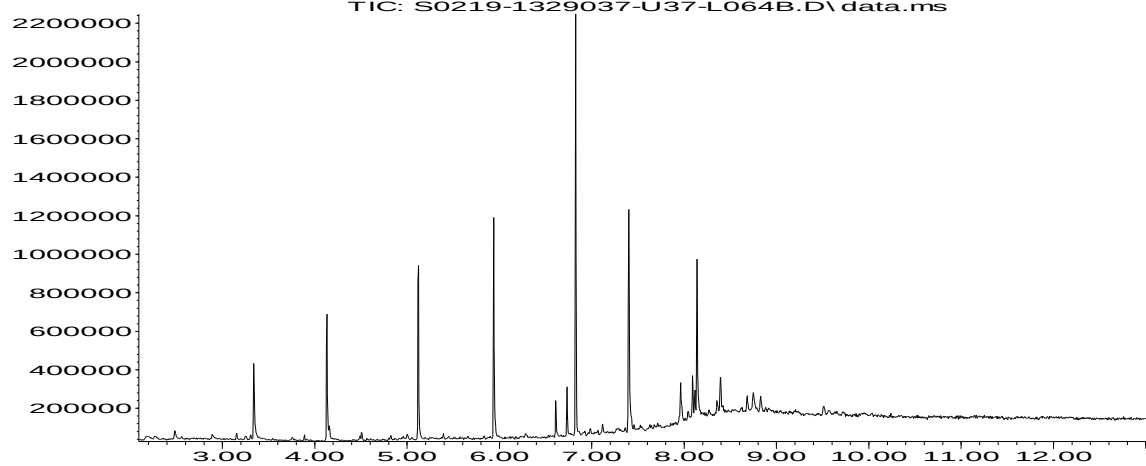
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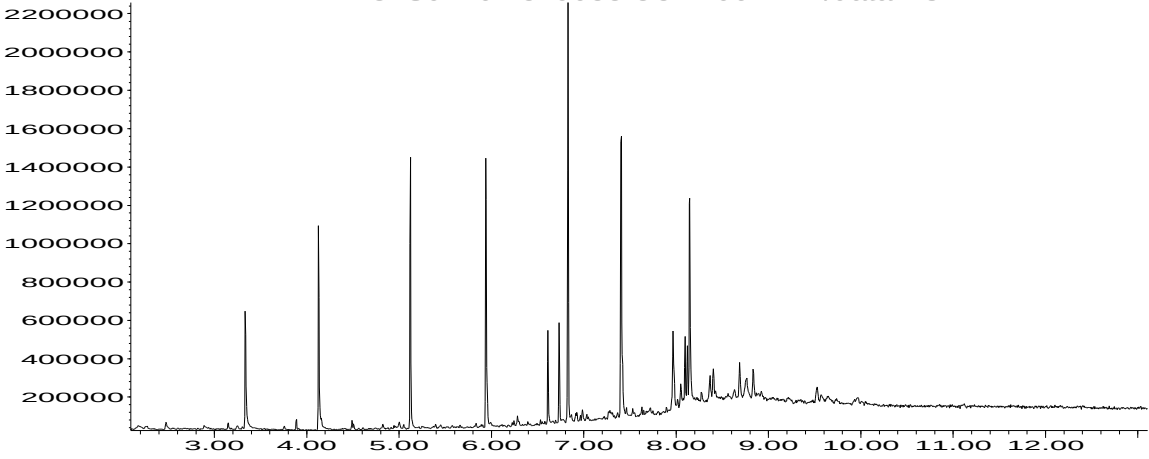
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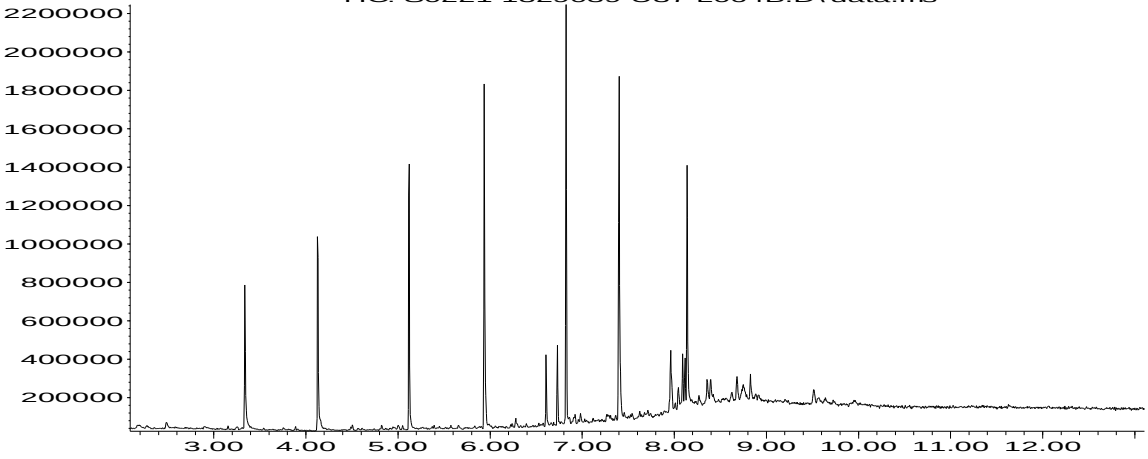
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Time-->

Abundance

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Time-->



TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

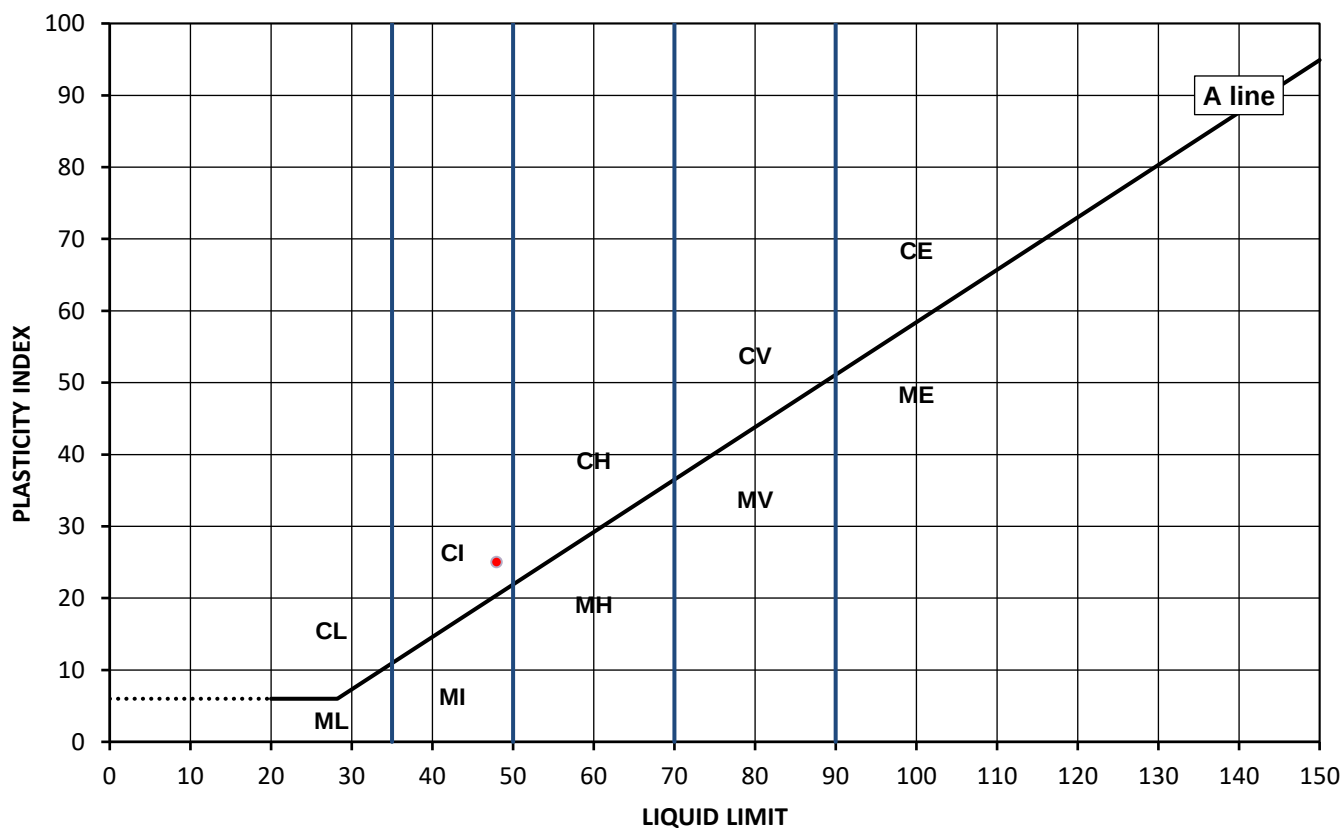
Test Results:

Laboratory Reference: 1329772
Hole No.: SSV02
Sample Reference: Not Given
Soil Description: Multicolour gravelly slightly sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
20	48	23	25	54



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 236.5

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The results included within the report are representative of the samples submitted for analysis.
The analysis was carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland.*



TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

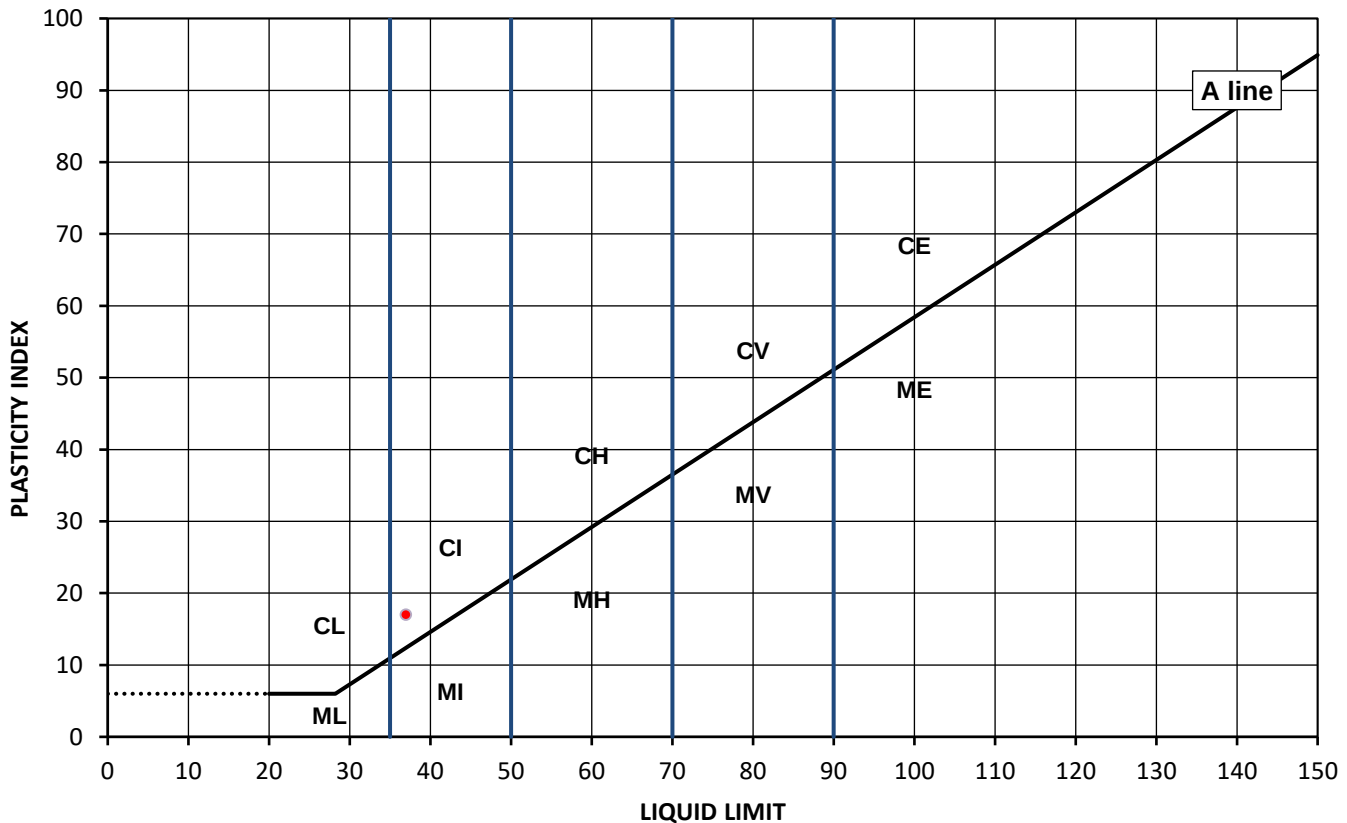
Test Results:

Laboratory Reference: 1329775
Hole No.: SSV05
Sample Reference: Not Given
Soil Description: Multicolour gravelly sandy CLAY

Depth Top [m]: 2.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
14	37	20	17	45



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 236.5

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The results included within the report are representative of the samples submitted for analysis.
The analysis was carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland.*

Any assessment of compliance with specifications based the analytical results in a report take in to account 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.



TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

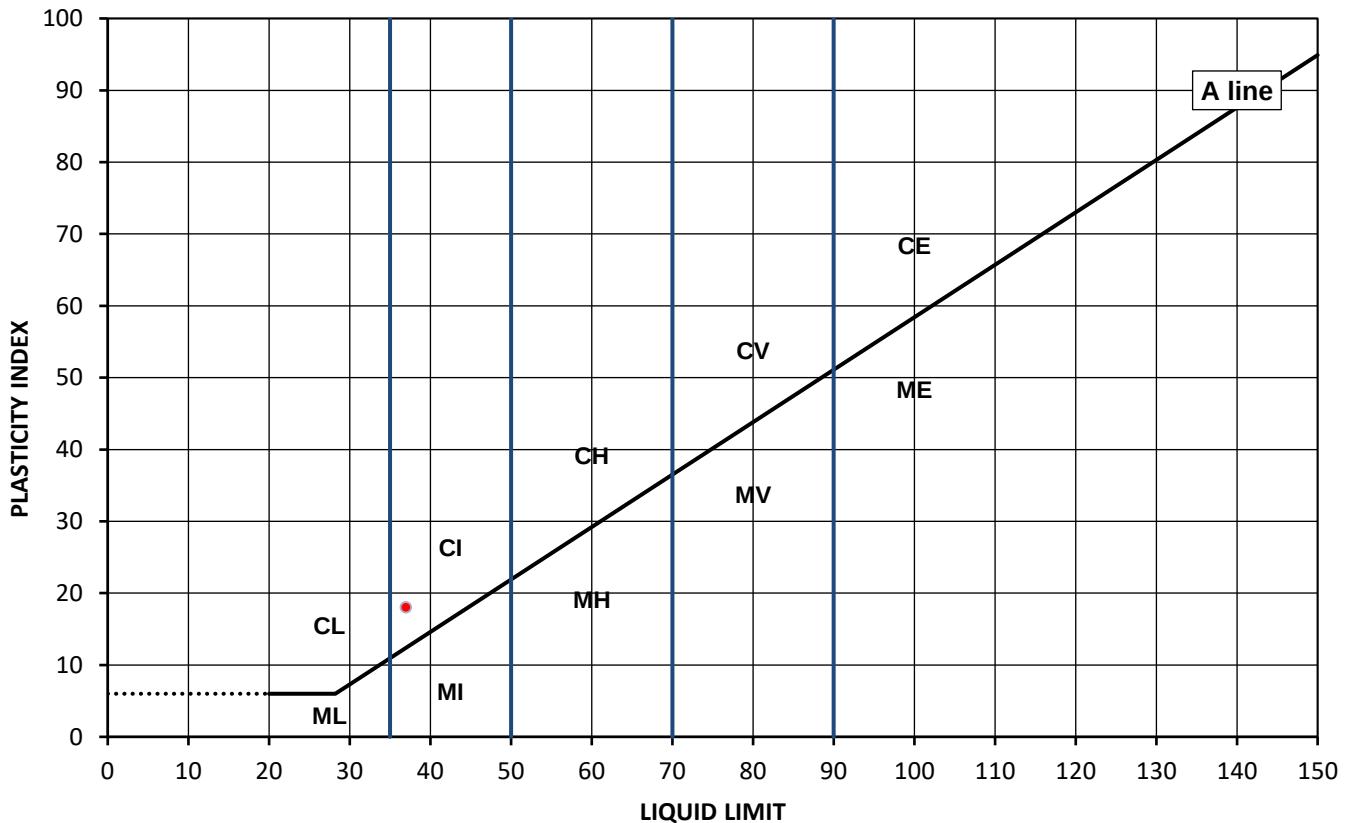
Test Results:

Laboratory Reference: 1329776
Hole No.: SSV06
Sample Reference: Not Given
Soil Description: Multicolour gravelly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
14	37	19	18	49



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

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The analysis was carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland.*

arren Berrill
eotechnical General Manager
for and on behalf of i2 Analytical Ltd GF 236.5



TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

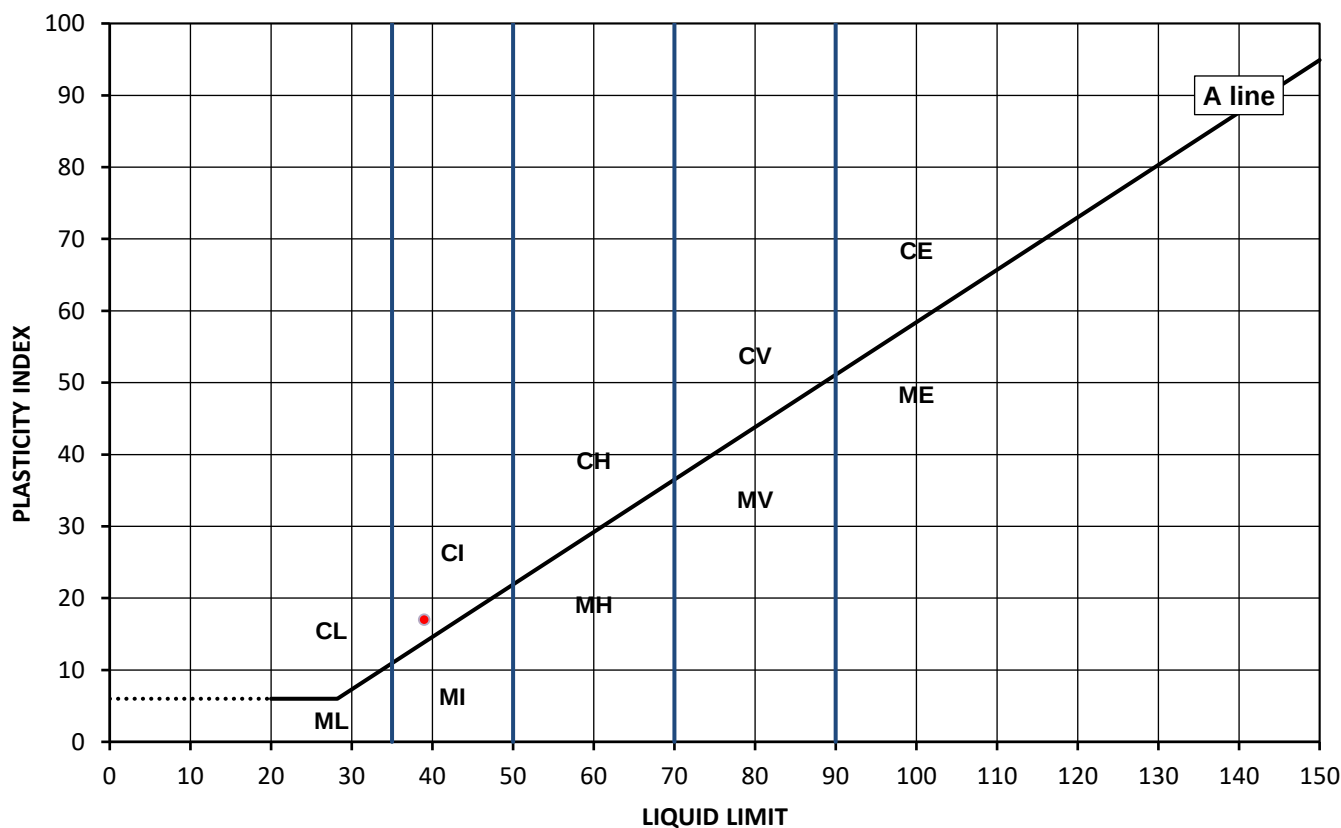
Test Results:

Laboratory Reference: 1329778
Hole No.: SSV09
Sample Reference: Not Given
Soil Description: Multicolour gravelly sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
17	39	22	17	51



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 236.5

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TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

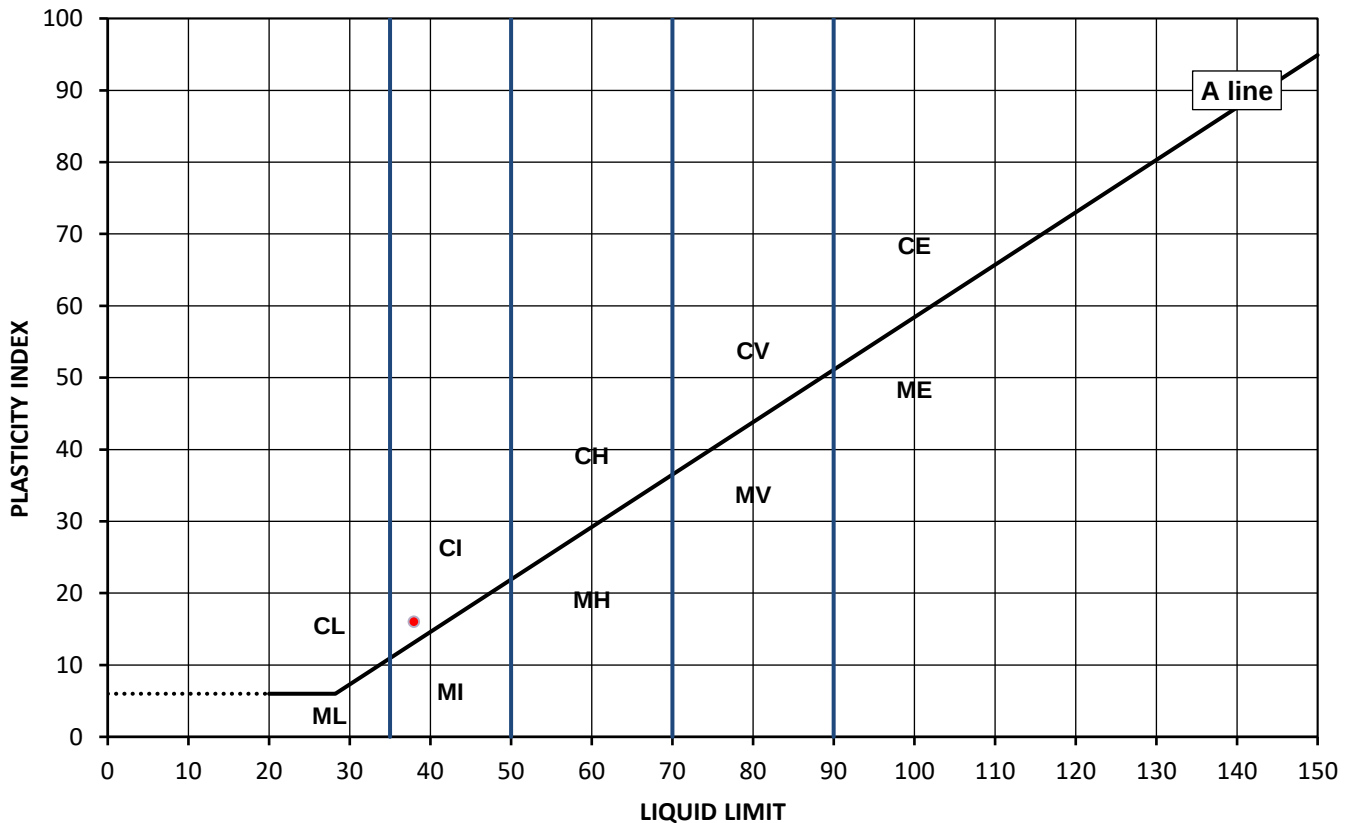
Test Results:

Laboratory Reference: 1329780
Hole No.: SSV11
Sample Reference: Not Given
Soil Description: Multicolour gravelly sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: B

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
18	38	22	16	48



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: [Signature]
Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 236.5

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Any assessment of compliance with specifications based the analytical results in a report take in to account 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.



TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

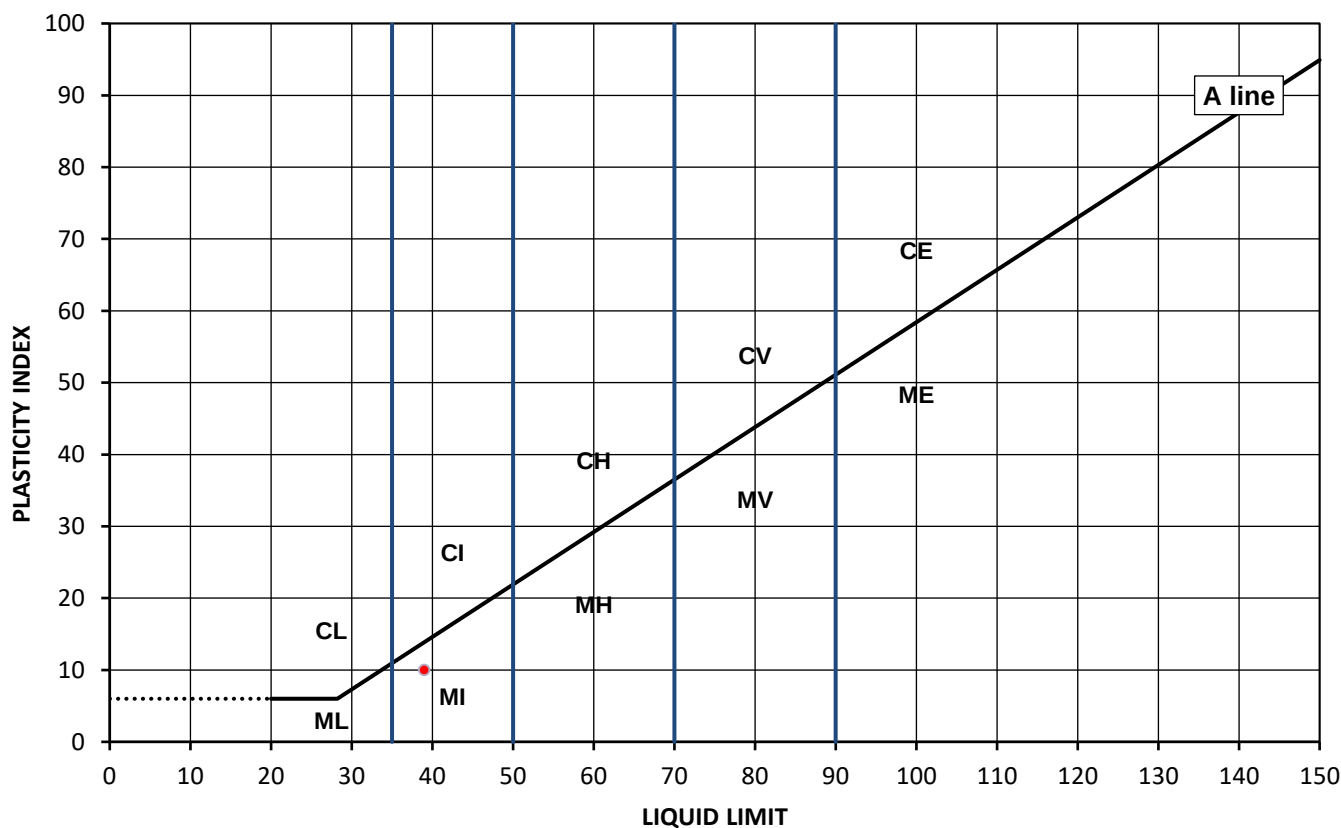
Test Results:

Laboratory Reference: 1329781
Hole No.: SSV13
Sample Reference: Not Given
Soil Description: Dark brown gravelly sandy CLAY

Depth Top [m]: 0.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
16	39	29	10	49



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 236.5

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TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

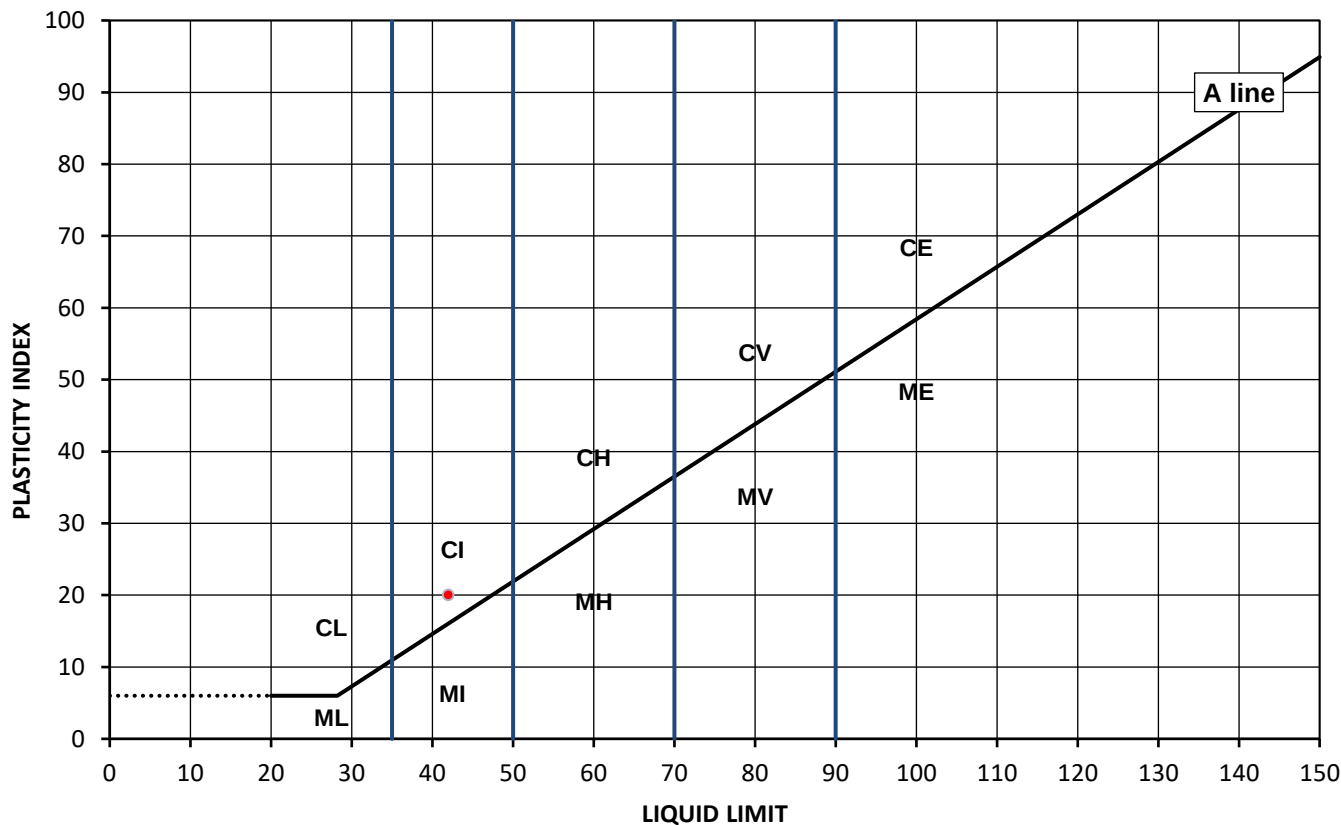
Test Results:

Laboratory Reference: 1329782
Hole No.: SSV14
Sample Reference: Not Given
Soil Description: Brown gravelly sandy CLAY

Depth Top [m]: 0.30
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
15	42	22	20	42



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 236.5

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TEST CERTIFICATE

Liquid and Plastic Limits

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



4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

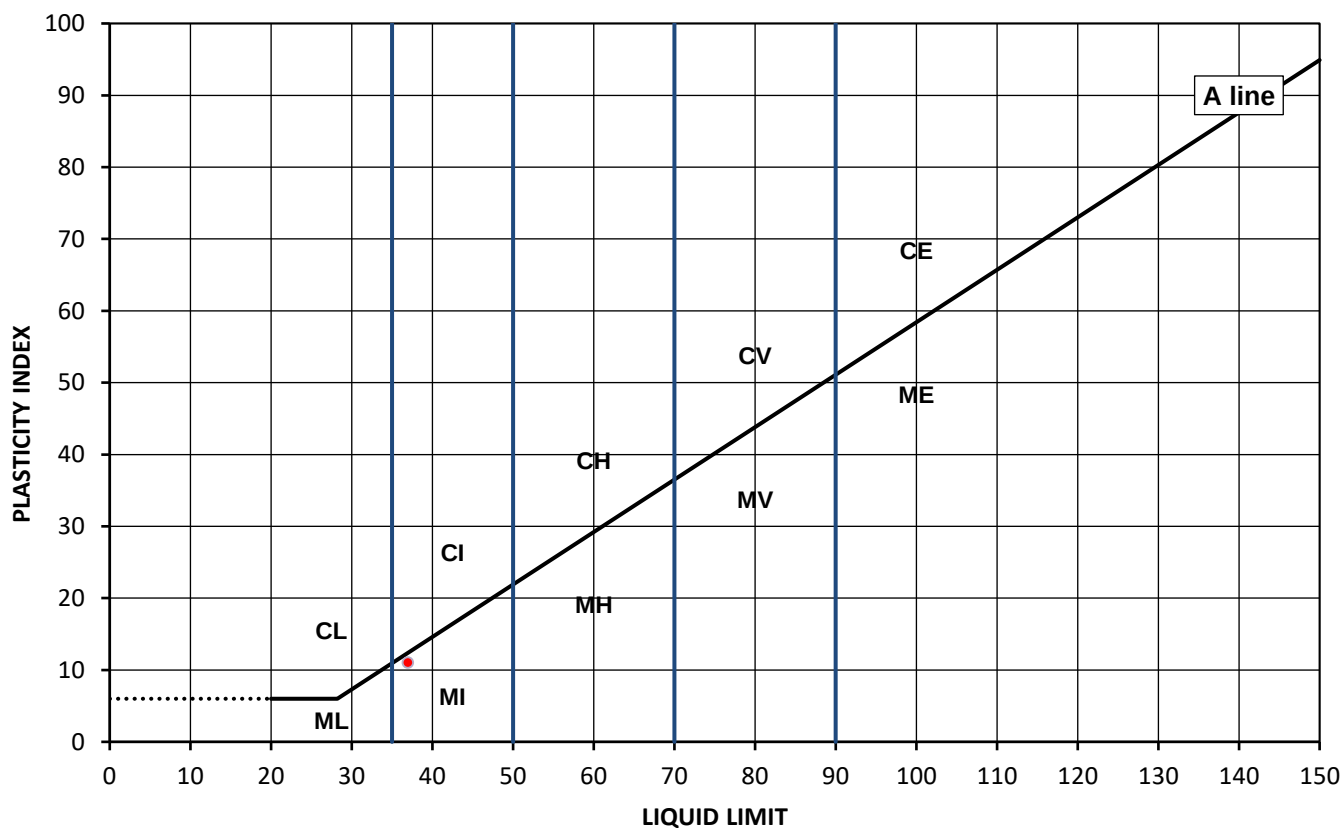
Test Results:

Laboratory Reference: 1329783
Hole No.: SSV16
Sample Reference: Not Given
Soil Description: Dark brown gravelly sandy CLAY

Depth Top [m]: 0.30
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >425um

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
11	37	26	11	42



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	below 35
		I	35 to 50
		H	50 to 70
		V	70 to 90
		E	exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

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for and on behalf of i2 Analytical Ltd GF 236.5
Geotechnical General Manager



SUMMARY REPORT

Summary of Classification Test Results

i2 Analytical Ltd
7 Woodshots Meadow
Croxtley Green Business Park
Watford Herts WD18 8YS



Tested in Accordance with:

Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

MC by BS 1377-2: 1990: Clause 3.2; WC by BS EN 17892-1: 2014; Atterberg
by BS 1377-2: 1990: Clause 4.3, Clause 4.4 and 5; PD by BS 1377-2: 1990:
Clause 8.2

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	MC	WC	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	LL	PL	PI	bulk	dry	PD			
			m	m															
1329772	SSV02	Not Given	0.50	Not Given	D	Multicolour gravelly slightly sandy CLAY	Atterberg 4 Point	20		54	48	23	25						
1329775	SSV05	Not Given	2.00	Not Given	D	Multicolour gravelly sandy CLAY	Atterberg 4 Point	14		45	37	20	17						
1329776	SSV06	Not Given	1.50	Not Given	D	Multicolour gravelly sandy CLAY	Atterberg 4 Point	14		49	37	19	18						
1329778	SSV09	Not Given	1.00	Not Given	D	Multicolour gravelly sandy CLAY	Atterberg 4 Point	17		51	39	22	17						
1329780	SSV11	Not Given	0.50	Not Given	B	Multicolour gravelly sandy CLAY	Atterberg 4 Point	18		48	38	22	16						
1329781	SSV13	Not Given	0.50	Not Given	D	Dark brown gravelly sandy CLAY	Atterberg 4 Point	16		49	39	29	10						
1329782	SSV14	Not Given	0.30	Not Given	D	Brown gravelly sandy CLAY	Atterberg 4 Point	15		42	42	22	20						
1329783	SSV16	Not Given	0.30	Not Given	D	Dark brown gravelly sandy CLAY	Atterberg 4 Point	11		42	37	26	11						

Note: # Non accredited; NP - Non plastic

Comments:

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager

for and on behalf of i2 Analytical Ltd GF 238.7

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TEST CERTIFICATE

Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

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



4041

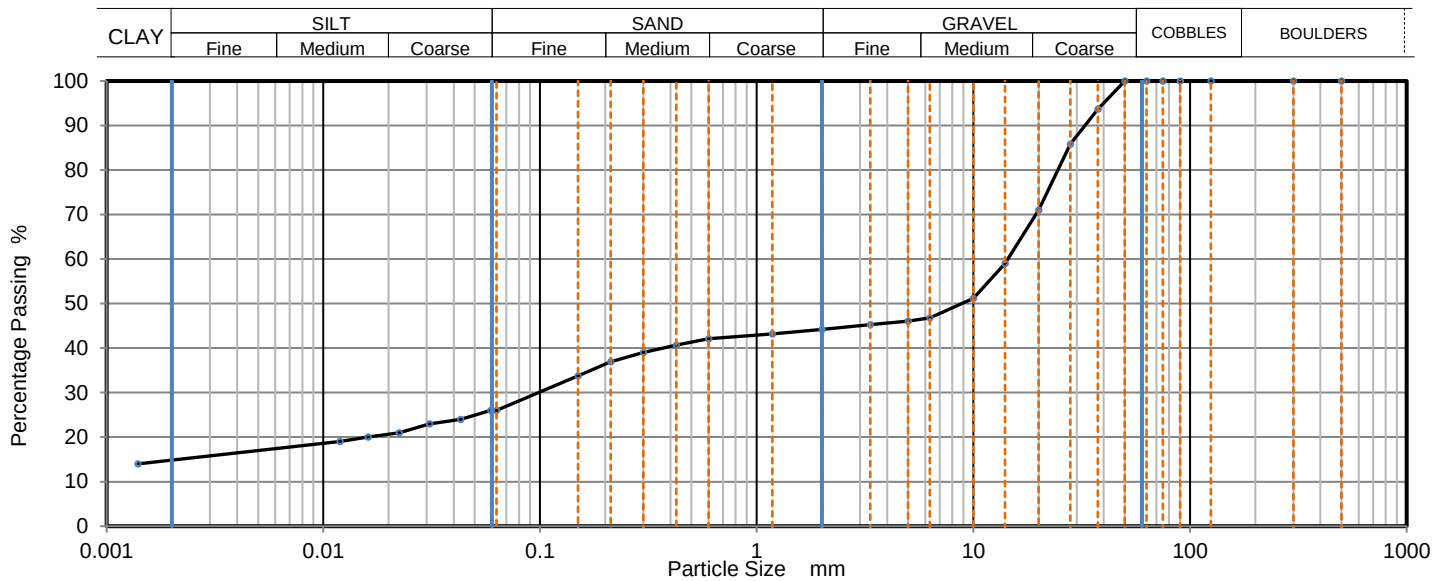
Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 17/10/2019
Sampled By: MW

Test Results:

Laboratory Reference: 1329773
Hole No.: SSV02
Sample Reference: Not Given
Sample Description: Mottled brown sandy silty clayey GRAVEL

Depth Top [m]: 1.00
Depth Base [m]: 1.20
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0592	26
300	100	0.0430	24
125	100	0.0309	23
90	100	0.0224	21
75	100	0.0161	20
63	100	0.0119	19
50	100	0.0014	14
37.5	94		
28	86		
20	71		
14	59		
10	51		
6.3	47		
5	46		
3.35	45		
2	44	Particle density (assumed) 2.65 Mg/m3	
1.18	43		
0.6	42		
0.425	41		
0.3	39		
0.212	37		
0.15	34		
0.063	26		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	55.80
Sand	18.50
Silt	10.90
Clay	14.80

Grading Analysis	
D100	mm 50
D60	mm 14.4
D30	mm 0.0994
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks: The material submitted - fails to meet the minimum mass requirements as stated in BS1377 Part 2 Table 3

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager
for and on behalf of i2 Analytical Ltd GF 100.13



TEST CERTIFICATE

Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

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



4041

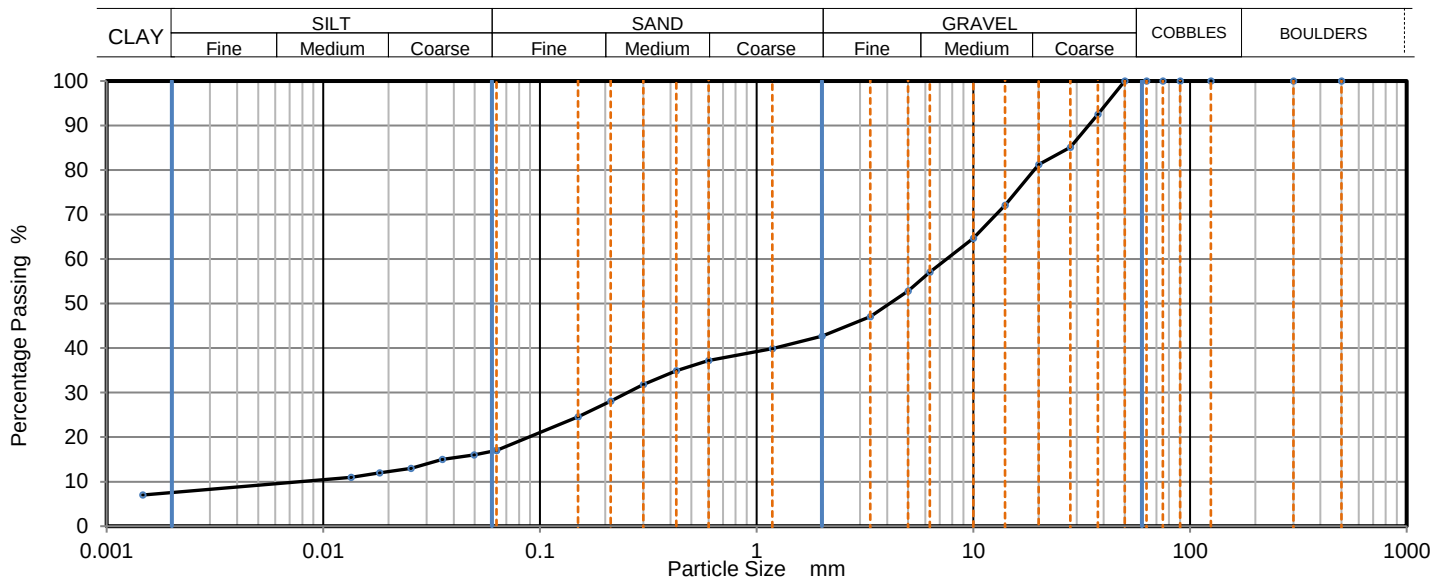
Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 16/10/2019
Sampled By: MW

Test Results:

Laboratory Reference: 1329774
Hole No.: SSV04
Sample Reference: Not Given
Sample Description: Brown slightly clayey silty sandy GRAVEL

Depth Top [m]: 1.50
Depth Base [m]: 1.60
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0630	17
300	100	0.0495	16
125	100	0.0355	15
90	100	0.0254	13
75	100	0.0182	12
63	100	0.0134	11
50	100	0.0015	7
37.5	93		
28	85		
20	81		
14	72		
10	65		
6.3	57		
5	53		
3.35	47		
2	43	Particle density (assumed) 2.65 Mg/m3	
1.18	40		
0.6	37		
0.425	35		
0.3	32		
0.212	28		
0.15	25		
0.063	17		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	57.30
Sand	25.50
Silt	10.00
Clay	7.20

Grading Analysis	
D100	mm 50
D60	mm 7.51
D30	mm 0.253
D10	mm 0.0097
Uniformity Coefficient	780
Curvature Coefficient	0.88

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks: The material submitted - fails to meet the minimum mass requirements as stated in BS1377 Part 2 Table 3

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Geotechnical General Manager
for and on behalf of i2 Analytical Ltd GF 100.13

Any assessment of compliance with specifications based the analytical results in a report take in to account 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.



TEST CERTIFICATE

Particle Size Distribution

Tested in Accordance with: BS 1377-2: 1990

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



4041

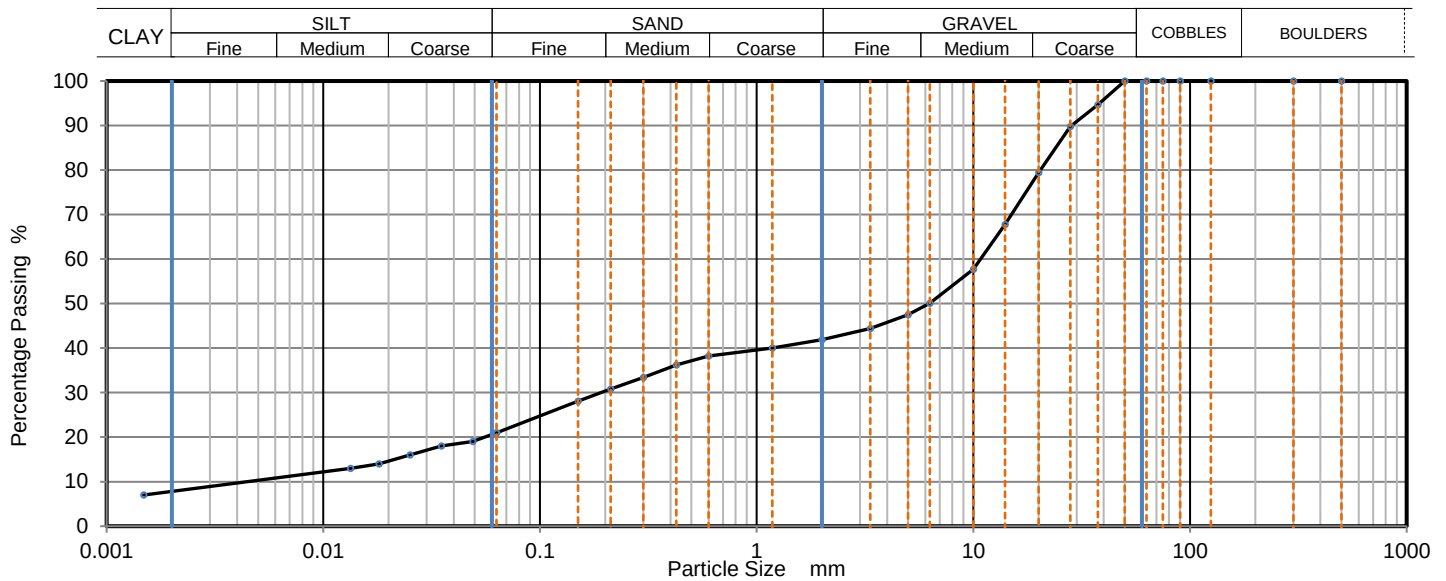
Client: Hydrock Consultants Ltd
Client Address: Suite 8, White Building,
1-4 Cumberland Place, Southampton,
Hampshire, SO15 2NP
Contact: Myfanwy Wood
Site Name: Bursledon, Kestrel Park
Site Address: Not Given

Client Reference: C-08162
Job Number: 19-65668
Date Sampled: 09/10/2019
Date Received: 10/10/2019
Date Tested: 16/10/2019
Sampled By: MW

Test Results:

Laboratory Reference: 1329779
Hole No.: SSV09
Sample Reference: Not Given
Sample Description: Brown slightly clayey silty sandy GRAVEL

Depth Top [m]: 1.00
Depth Base [m]: 1.10
Sample Type: B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100	0.0630	21
300	100	0.0489	19
125	100	0.0350	18
90	100	0.0251	16
75	100	0.0181	14
63	100	0.0134	13
50	100	0.0015	7
37.5	95		
28	90		
20	79		
14	68		
10	58		
6.3	50		
5	48		
3.35	44		
2	42	Particle density (assumed) 2.65 Mg/m3	
1.18	40		
0.6	38		
0.425	36		
0.3	33		
0.212	31		
0.15	28		
0.063	21		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	58.10
Sand	21.00
Silt	13.40
Clay	7.50

Grading Analysis	
D100	mm 50
D60	mm 10.8
D30	mm 0.191
D10	mm 0.00505
Uniformity Coefficient	2100
Curvature Coefficient	0.67

Note: Tested in Accordance with BS1377:Part 2:1990, clauses 9.2 and 9.5

Remarks: The material submitted - fails to meet the minimum mass requirements as stated in BS1377 Part 2 Table 3

Approved: Dariusz Piotrowski
PL Geotechnical Laboratory Manager
Date Reported: 23/10/2019

Signed: Darren Berrill
Technical General Manager
for and on behalf of i2 Analytical Ltd GF 100.13

Assessment of Chemicals of Potential Concern to Human Health



Chemical of Potential Concern	Soil Type						SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS							
	All values in mg/kg unless otherwise stated						Location & Depth						SSV01	SSV01	SSV02	SSV03	SSV04	SSV04	SSV05	SSV06	SSV06	SSV07	SSV07	SSV08	SSV09	SSV09	SSV10		
	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	1.00	0.50	1.00	2.00	1.50	0.50	2.00	1.50	0.50	1.00	0.50	1.50	1.00	0.50	1.50	1.00	0.50	1.50	1.00	0.50	1.00	0.50	1.00
Arsenic	1	21	2.5	15	0	37	8.2	15	6.5	9.4	3.3	11	12	6.1	7.6	10	6.5	3.6	9.8	9.8	2.5								
Beryllium	0.06	21	0.26	0.83	0	73	0.38	0.83	0.37	0.42	0.34	0.42	0.38	0.26	0.33	0.34	0.44	0.39	0.41	0.37	0.34								
Boron	0.2	21	0.5	1.1	0	300	0.8	0.7	0.6	0.8	1.1	0.6	0.8	0.5	0.8	0.7	0.7	1	0.5	0.6	0.5								
Cadmium	0.2	21	0.2	0.5	0	14	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.2								
Chromium (III)	1	21	13	35	0	890	30	27	23	35	18	19	19	20	13	23	31	30	24	25	26								
Chromium (VI)	1.2	21	1.2	1.2	0	6.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2								
Copper	1	21	10	44	0	2500	18	20	11	17	24	22	26	17	31	14	14	16	19	15	10								
Lead	2	21	20	160	0	200	21	28	23	31	55	48	55	33	66	25	20	25	43	28	23								
Mercury, inorganic	0.3	21	0.3	1.1	0	170	0.7	0.3	0.3	0.3	0.3	0.9	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.7								
Nickel	2	21	7.4	22	0	130	16	16	11	12	16	8.9	7.9	7.4	9.5	7.8	8.4	9.2	9.8	10	10								
Selenium	1	21	1	2.5	0	360	1	1	1	1	1.6	1	1	1	1	1	1	1	1	1	1								
Vanadium	1	21	20	45	0	410	45	40	30	29	25	25	23	25	21	33	34	38	31	32	38								
Zinc	2	21	30	92	0	3900	32	42	30	91	68	70	54	53	87	38	37	51	50	41	35								
Cyanide (free)	1	21	1	1	0	790	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
Phenol (total)	2	21	1	1	0	290	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
Acenaphthene	0.05	21	0.05	0.05	0	220	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05								
Acenaphthylene	0.05	21	0.05	0.05	0	180	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05								
Anthracene	0.05	21	0.05	0.25	0	2400	0.05	0.05	0.05	0.05	0.05	0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05								
Benz(a)anthracene	0.05	21	0.05	1.2	0	4.2	0.05	0.05	0.05	0.05	0.23	0.85	1.2	0.29	0.68	0.51	0.41	0.43	0.3	0.24	0.05								
Benzo(a)pyrene	0.05	21	0.05	1.4	0	1.5	0.05	0.05	0.05	0.05	0.27	0.7	1.4	0.33	0.79	0.67	0.37	0.45	0.36	0.24	0.05								
Benzo(b)fluoranthene	0.05	21	0.05	1.7	0	7.6	0.05	0.05	0.05	0.05	0.34	0.65	1.7	0.39	0.87	0.74	0.35	0.43	0.36	0.26	0.05								
Benzo(ghi)perylene	0.05	21	0.05	1.2	0	64	0.05	0.05	0.05	0.05	0.05	0.47	1.2	0.33	0.58	0.55	0.27	0.36	0.25	0.05	0.05								
Benzo(k)fluoranthene	0.05	21	0.05	1.1	0	12	0.05	0.05	0.05	0.05	0.22	0.58	0.69	0.19	0.39	0.43	0.3	0.29	0.27	0.21	0.05								
Chrysene	0.05	21	0.05	1.2	0	7.7	0.05	0.05	0.05	0.05	0.36	0.63	0.97	0.27	0.73	0.41	0.38	0.43	0.39	0.26	0.05								
Dibenz(a,h)anthracene	0.05	21	0.05	0.24	0	1.1	0.05	0.05	0.05	0.05	0.05	0.05	0.23	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05								
Fluoranthene	0.05	21	0.05	1.6	0	290	0.05	0.05	0.05	0.29	0.42	1.2	1.4	0.28	1.1	0.59	0.6	0.63	0.54	0.37	0.05								
Fluorene	0.05	21	0.05	0.05	0	170	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05								
Indeno(1,2,3-cd)pyrene	0.05	21	0.05	0.82	0	4.3	0.05	0.05	0.05	0.05	0.05	0.39	0.82	0.22	0.49	0.41	0.21	0.24	0.21	0.05	0.05								
Naphthalene	0.05	21	0.05	0.05	0	2.2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05								
Phenanthrene	0.05	21	0.05	1.1	0	97	0.05	0.05	0.05	0.05	0.05	1.1	0.34	0.05	0.42	0.2	0.39	0.28	0.26	0.17	0.05								
Pyrene	0.05	21	0.05	1.5	0	620	0.05	0.05	0.05	0.28	0.39	1	1.3	0.31	1.1	0.59	0.53	0.57	0.46	0.33	0.05								
Asbestos identified	Y/N						N	N	N	Y	Y	Y	N	N	N	N	N	Y	N	N	N								
FOC (dimensionless)	0.017086	(mean)					0.0067	0.0084	0.0096	0.0061	0.015	0.013	0.015	0.018	0.033	0.011	0.0087	0.0077	0.013	0.01	0.0086								
SOM (calculated)	2.95%	(mean)					1.16%	1.45%	1.66%	1.05%	2.59%	2.24%	2.59%	3.10%	5.69%	1.90%	1.50%	1.33%	2.24%	1.72%	1.48%								
pH (su)	7.9	(mean)					7.1	7.2	7.3	11	8.1	10.5	8.1	10.7	7.2	7.8	8.1	7.7	7.9	8.1	7.3								

Risk parameter: Human health - residential with plant uptake (1%SOM)

Data set: Topsoil

Client: Taylor Wimpey

Site: Kestrel Park, Bursledon

Job no.: C-08162

Lab. report no(s): 19-65538-1

Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground

Assessment of Chemicals of Potential Concern to Human Health



Chemical of Potential Concern	All values in mg/kg unless otherwise stated						Soil Type	SS	SS	SS	SS	SS	SS			
	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	Location & Depth	SSV11	SSV12	SSV13	SSV14	SSV15	SSV16			
								0.50	0.20	0.45	0.25	0.50	0.30			
Arsenic	1	21	2.5	15	0	37		9	10	14	7.5	11	8.3			
Beryllium	0.06	21	0.26	0.83	0	73		0.37	0.49	0.4	0.26	0.34	0.33			
Boron	0.2	21	0.5	1.1	0	300		0.5	0.7	0.8	0.7	0.6	0.8			
Cadmium	0.2	21	0.2	0.5	0	14		0.3	0.4	0.2	0.2	0.3	0.3			
Chromium (III)	1	21	13	35	0	890		19	21	24	22	18	17			
Chromium (VI)	1.2	21	1.2	1.2	0	6.1		1.2	1.2	1.2	1.2	1.2	1.2			
Copper	1	21	10	44	0	2500		32	43	28	27	44	41			
Lead	2	21	20	160	0	200		91	120	71	48	120	160			
Mercury, inorganic	0.3	21	0.3	1.1	0	170		0.3	1	0.3	0.7	1.1	1			
Nickel	2	21	7.4	22	0	130		11	15	10	22	10	9.2			
Selenium	1	21	1	2.5	0	360		1	1	1	2.5	2.4	1			
Vanadium	1	21	20	45	0	410		24	24	32	20	25	22			
Zinc	2	21	30	92	0	3900		74	92	59	56	89	86			
Cyanide (free)	1	21	1	1	0	790		1	1	1	1	1	1			
Phenol (total)	2	21	1	1	0	290		1	1	1	1	1	1			
Acenaphthene	0.05	21	0.05	0.05	0	220		0.05	0.05	0.05	0.05	0.05	0.05			
Acenaphthylene	0.05	21	0.05	0.05	0	180		0.05	0.05	0.05	0.05	0.05	0.05			
Anthracene	0.05	21	0.05	0.25	0	2400		0.05	0.11	0.05	0.05	0.12	0.05			
Benz(a)anthracene	0.05	21	0.05	1.2	0	4.2		0.92	1.1	0.47	0.7	0.98	0.86			
Benzo(a)pyrene	0.05	21	0.05	1.4	0	1.5		1	1.2	0.48	0.77	1.2	0.92			
Benzo(b)fluoranthene	0.05	21	0.05	1.7	0	7.6		1.1	1	0.58	0.77	1.3	0.92			
Benzo(ghi)perylene	0.05	21	0.05	1.2	0	64		0.75	0.88	0.3	0.63	0.92	0.71			
Benzo(k)fluoranthene	0.05	21	0.05	1.1	0	12		0.72	1.1	0.18	0.64	0.83	0.64			
Chrysene	0.05	21	0.05	1.2	0	7.7		0.88	1.1	0.39	0.73	1.2	0.82			
Dibenz(a,h)anthracene	0.05	21	0.05	0.24	0	1.1		0.05	0.22	0.05	0.05	0.24	0.05			
Fluoranthene	0.05	21	0.05	1.6	0	290		1.2	1.6	0.56	1	1.6	1.2			
Fluorene	0.05	21	0.05	0.05	0	170		0.05	0.05	0.05	0.05	0.05	0.05			
Indeno(1,2,3,cd)pyrene	0.05	21	0.05	0.82	0	4.3		0.62	0.78	0.23	0.45	0.77	0.59			
Naphthalene	0.05	21	0.05	0.05	0	2.2		0.05	0.05	0.05	0.05	0.05	0.05			
Phenanthrene	0.05	21	0.05	1.1	0	97		0.4	0.48	0.05	0.32	0.54	0.39			
Pyrene	0.05	21	0.05	1.5	0	620		1.2	1.4	0.54	0.99	1.5	1.1			
Asbestos identified	Y/N							N	N	N	N	N	N			
FOC (dimensionless)	0.017086	(mean)						0.03	0.035	0.016	0.018	0.037	0.039			
SOM (calculated)	2.95%	(mean)						5.17%	6.03%	2.76%	3.10%	6.38%	6.72%			
pH (su)	7.9	(mean)						7.1	6.8	7.5	7.4	6.9	6.6			
Risk parameter: Human health - residential with plant uptake (1%SOM) Data set: Topsoil Client: Taylor Wimpey Site: Kestrel Park, Bursledon Job no.: C-08162 Lab. report no(s): 19-65538-1																

Laboratory testing and contamination assessment for the northwest bund

Assessment of Chemicals of Potential Concern to Plant Life



Soil Type							TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS
Location & Depth							TP01-ES-0	TP02-ES-0	TP03-ES-0	TP04-ES-0	TP05-ES-0	TP06-ES-0	TP07-ES-0	TP08-ES-0	TP09-ES-0	TP10-ES-0	TP11-ES-0	TP12-ES-0	TP13-ES-0	TP14-ES-0	TP15-ES-0
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Arsenic	1	15	6	12	0	250	8	9.7	9.8	6.5	6.7	6.1	6	9.8	7.2	7.4	7.3	6.8	8.8	12	12
Boron	0.2	15	0.2	0.8	0	3	0.6	0.8	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.5	0.5	0.3
Chromium (III)	1	15	12	41	0	400	16	23	22	15	15	12	15	41	20	14	21	20	22	36	40
Chromium (VI)	1.2	15	1.2	1.2	0	25	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Copper	1	15	13	64	0	135	15	13	15	15	14	15	17	64	14	15	15	14	13	15	14
Nickel	1	15	5.8	30	0	75	7.9	10	9.6	6.4	7.9	5.8	8.2	30	10	6.3	13	10	11	25	22
Zinc	1	15	37	230	0	300	41	55	62	45	39	39	39	230	55	47	42	37	53	66	58
	Mean																				
pH (su)	7.6						7.7	7.5	7.3	7	7	6.9	6.9	7.9	7.6	7.5	7.7	7.7	8.1	8.5	8.3
Risk parameter: Plant life pH 7 Data set: Topsoil Client: Taylor Wimpey Southern Counties Site: Kestrel Park, Burlesdon Job no.: C-08162 Lab. report no(s): 20-35360-1 Legend: Values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate. Values in red are equal to, or greater than, the generic assessment criterion (GAC). MG denotes Made Ground NAT denotes natural ground																					

Assessment of Chemicals of Potential Concern to Human Health



Soil Type							TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS	TS		
All values in mg/kg unless otherwise stated Location & Depth							P01-ES-0.2	P02-ES-0.2	P03-ES-0.2	P04-ES-0.2	P05-ES-0.2	P06-ES-0.2	P07-ES-0.2	P08-ES-0.2	P09-ES-0.2	P10-ES-0.2	P11-ES-0.2	P12-ES-0.2	P13-ES-0.2	P14-ES-0.2	P15-ES-0.2		
Chemical of Potential Concern	Lab. RL	No. Samples	Min. Value	Max. Value	No. Samples > or = GAC	GAC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20		
Aliphatics EC5-EC6	0.01	15	0.001	0.001	0	590000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC6-EC8	0.01	15	0.001	0.001	0	610000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC8-EC10	0.01	15	0.001	0.001	0	13000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aliphatics >EC10-EC12	0.01	15	1	1	0	13000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Aliphatics >EC12-EC16	0.1	15	2	2	0	13000	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Aliphatics >EC35-EC44	0.1	15	8.4	8.4	0	250000	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4		
Aromatics EC5-EC7	0.01	15	0.001	0.001	0	56000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC7-EC8	0.01	15	0.001	0.001	0	56000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC8-EC10	0.01	15	0.001	0.001	0	5000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001		
Aromatics >EC10-EC12	0.01	15	1	1	0	5000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Aromatics >EC12-EC16	0.1	15	2	2	0	5000	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Aromatics >EC16-EC21	0.1	15	10	13	0	3800	10	10	10	10	10	10	13	10	10	10	10	10	10	10	10		
Aromatics >EC21-EC35	0.1	15	10	43	0	3800	10	10	13	10	10	34	43	10	21	35	26	30	10	10	10		
Aromatics >EC35-EC44	0.1	15	8.4	9.6	0	3800	8.4	8.4	8.4	8.4	8.4	9.5	9.6	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4		
ADDITIVITY CHECK							HAZARD QUOTIENTS FOR EACH FRACTION																
Aliphatics EC5-EC6							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Aliphatics >EC6-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Considered additive	Aliphatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Aliphatics >EC10-EC12						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Aliphatics >EC12-EC16						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Aliphatics >EC35-EC44						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Aromatics EC5-EC7							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Aromatics >EC7-EC8							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Considered additive	Aromatics >EC8-EC10						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Aromatics >EC10-EC12						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	Aromatics >EC12-EC16						0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Considered additive	Aromatics >EC16-EC21						0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
	Aromatics >EC21-EC35						0.003	0.003	0.003	0.003	0.003	0.009	0.011	0.003	0.006	0.009	0.007	0.008	0.003	0.003	0.003		
Aromatics >EC35-EC44							0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Hazard Index for ali>C8-C16							0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hazard Index for aro>C8-C16							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Hazard Index for aro>C16-C35							0.005	0.005	0.006	0.005	0.005	0.012	0.015	0.005	0.008	0.012	0.009	0.011	0.005	0.005	0.005	0.005	0.005
Risk parameter: Human health - POS resi (2.5%SOM)							Hazard Index table - HI or HQ greater than 1 highlighted with yellow shading.																
Data set: Topsoil							Legend: Main table values in blue are at or below the laboratory reporting limit (where a single value is indicated) and are considered as being at the detection limit for the purposes of statistical analysis, as a conservative estimate.																
Client: Taylor Wimpey Southern Counties							Main table alues in red are equal to, or greater than, the generic assessment criterion (GAC).																
Site: Burlesdon							MG denotes Made Ground																
Job no.: C-08162							NAT denotes natural ground																
Lab. report no(s).: 20-35360-1																							



Yacklin Panza
Hydrock Consultants Ltd
Suite 8
White Building
1-4 Cumberland Place
Southampton
Hampshire
SO15 2NP

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

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

e:

Analytical Report Number : 20-35360

Project / Site name:	Kestrel Park - Bursledon	Samples received on:	09/10/2020
Your job number:	C-08162	Samples instructed on/ Analysis started on:	14/10/2020
Your order number:	PO02617	Analysis completed by:	21/10/2020
Report Issue Number:	1	Report issued on:	21/10/2020
Samples Analysed:	15 soil samples		

Sig

Agneszka Czerwińska
Technical Reviewer (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

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



Analytical Report Number: 20-35360
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO02617

Lab Sample Number				1649420	1649421	1649422	1649423
Sample Reference				TP01-ES-0.20	TP02-ES-0.20	TP03-ES-0.20	TP04-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	13	14	12
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7	7.5	7.3	7
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.021	0.013	0.013	0.028
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.023	0.013	0.013	0.022

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.52	< 0.05	0.23	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.45	0.43	0.62	0.37
Pyrene	mg/kg	0.05	MCERTS	0.42	0.42	0.63	0.43
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.32	0.28	0.35	0.3
Chrysene	mg/kg	0.05	MCERTS	0.26	0.23	0.31	0.2
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.35	0.34	0.5	0.33
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.31	0.16	0.17	0.2
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.32	0.24	0.28	0.24
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	2.95	2.1	3.09	2.07
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8	9.7	9.8	6.5
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.28	0.46	0.41	0.25
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.8	0.3	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	16	23	22	15
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	23	22	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	13	15	15
Lead (aqua regia extractable)	mg/kg	1	MCERTS	41	35	40	42
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.4	0.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.9	10	9.6	6.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	26	36	34	24
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	41	55	62	45

Analytical Report Number: 20-35360
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO02617

Lab Sample Number				1649420	1649421	1649422	1649423
Sample Reference				TP01-ES-0.20	TP02-ES-0.20	TP03-ES-0.20	TP04-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status	

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	13	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-35360
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO02617

Lab Sample Number				1649424	1649425	1649426	1649427
Sample Reference				TP05-ES-0.20	TP06-ES-0.20	TP07-ES-0.20	TP08-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	10	13	11	15
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7	6.9	6.9	7.9
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.053	0.093	0.058	0.26
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.024	0.029	0.031	0.0083

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.55	0.72	0.43
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.45	0.68	0.85	0.41
Pyrene	mg/kg	0.05	MCERTS	0.43	0.67	0.73	0.37
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.33	0.53	0.55	0.31
Chrysene	mg/kg	0.05	MCERTS	0.23	0.44	0.46	0.23
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.36	0.76	0.88	0.29
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.25	0.27	0.35	0.29
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.31	0.53	0.68	0.33
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.26	0.34	0.39	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.21	0.42	0.53	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	2.83	5.19	6.14	2.66
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.7	6.1	6	9.8
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.24	0.22	0.21	0.58
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.5	0.5	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2	< 0.2	0.6
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	15	12	15	41
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	12	15	42
Copper (aqua regia extractable)	mg/kg	1	MCERTS	14	15	17	64
Lead (aqua regia extractable)	mg/kg	1	MCERTS	39	41	46	41
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.9	5.8	8.2	30
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	23	21	21	43
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	39	39	39	230

Analytical Report Number: 20-35360
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO02617

Lab Sample Number				1649424	1649425	1649426	1649427
Sample Reference				TP05-ES-0.20	TP06-ES-0.20	TP07-ES-0.20	TP08-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Monoaromatics & Oxygenates							
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	13	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	34	43	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	9.5	9.6	< 8.4

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-35360
 Project / Site name: Kestrel Park - Bursledon
 Your Order No: PO02617

Lab Sample Number				1649428	1649429	1649430	1649431
Sample Reference				TP09-ES-0.20	TP10-ES-0.20	TP11-ES-0.20	TP12-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	13	10	11
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.6	7.5	7.7	7.7
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.034	0.027	0.037	0.036
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.017	0.026	0.022	0.022

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.53	0.64	0.47	0.44
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.2	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.6	0.87	0.53	0.38
Pyrene	mg/kg	0.05	MCERTS	0.56	0.78	0.49	0.37
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.38	0.57	0.34	0.27
Chrysene	mg/kg	0.05	MCERTS	0.35	0.45	0.29	0.23
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.52	0.73	0.52	0.46
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.21	0.34	0.19	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.4	0.6	0.35	0.35
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.23	0.34	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.28	0.39	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	4.06	5.91	3.18	2.69
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.2	7.4	7.3	6.8
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.33	0.23	0.27	0.25
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.4	0.3	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	20	14	21	20
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	14	21	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	14	15	15	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	37	48	35	36
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	10	6.3	13	10
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	28	24	26	24
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	55	47	42	37

Analytical Report Number: 20-35360
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO02617

Lab Sample Number				1649428	1649429	1649430	1649431
Sample Reference				TP09-ES-0.20	TP10-ES-0.20	TP11-ES-0.20	TP12-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status	
Monoaromatics & Oxygenates							
Benzene				µg/kg	1	MCERTS	< 1.0
Toluene				µg/kg	1	MCERTS	< 1.0
Ethylbenzene				µg/kg	1	MCERTS	< 1.0
p & m-xylene				µg/kg	1	MCERTS	< 1.0
o-xylene				µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)				µg/kg	1	MCERTS	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	21	35	26	30
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-35360
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO02617

Lab Sample Number				1649432	1649433	1649434
Sample Reference				TP13-ES-0.20	TP14-ES-0.20	TP15-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	19	19
Total mass of sample received	kg	0.001	NONE	1.2	1.2	1.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	8.5	8.3
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.14	0.092	0.16
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.015	0.0059	0.0075

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.69	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.71	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.68	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.39	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.34	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.35	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.3	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.41	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.87	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.8	12	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.4	0.79	0.83
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.5	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	22	36	40
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	37	41
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	15	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	31	19	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	25	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	32	56	59
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	53	66	58

Analytical Report Number: 20-35360
Project / Site name: Kestrel Park - Bursledon
Your Order No: PO02617

Lab Sample Number				1649432	1649433	1649434
Sample Reference				TP13-ES-0.20	TP14-ES-0.20	TP15-ES-0.20
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.20
Date Sampled				07/10/2020	07/10/2020	07/10/2020
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status			
Monoaromatics & Oxygenates						
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 20-35360

Project / Site name: Kestrel Park - Bursledon

* 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 *
1649420	TP01-ES-0.20	None Supplied	0.2	Brown loam and sand with vegetation and gravel.
1649421	TP02-ES-0.20	None Supplied	0.2	Brown clay and loam with vegetation and gravel
1649422	TP03-ES-0.20	None Supplied	0.2	Brown clay and loam with vegetation and gravel
1649423	TP04-ES-0.20	None Supplied	0.2	Brown loam and clay with vegetation and gravel
1649424	TP05-ES-0.20	None Supplied	0.2	Brown loam and clay with vegetation and gravel
1649425	TP06-ES-0.20	None Supplied	0.2	Brown loam and clay with vegetation and gravel
1649426	TP07-ES-0.20	None Supplied	0.2	Brown loam and sand with vegetation and gravel.
1649427	TP08-ES-0.20	None Supplied	0.2	Light brown clay and loam with vegetation and glass.
1649428	TP09-ES-0.20	None Supplied	0.2	Brown clay and loam with vegetation and gravel
1649429	TP10-ES-0.20	None Supplied	0.2	Brown loam and clay with vegetation and gravel
1649430	TP11-ES-0.20	None Supplied	0.2	Brown loam and clay with vegetation and gravel
1649431	TP12-ES-0.20	None Supplied	0.2	Brown loam and clay with gravel.
1649432	TP13-ES-0.20	None Supplied	0.2	Brown loam and clay with gravel.
1649433	TP14-ES-0.20	None Supplied	0.2	Light brown loam and clay with gravel.
1649434	TP15-ES-0.20	None Supplied	0.2	Light brown clay with gravel.



Analytical Report Number : 20-35360

Project / Site name: Kestrel Park - Bursledon

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
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	L038-PL	D	MCERTS
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Fraction of Organic Carbon in soil	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
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.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPH Chromatogram in Soil	TPH Chromatogram in Soil.	In-house method	L064-PL	D	NONE
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE



Analytical Report Number : 20-35360
Project / Site name: Kestrel Park - Bursledon

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.



Sample Deviation Report



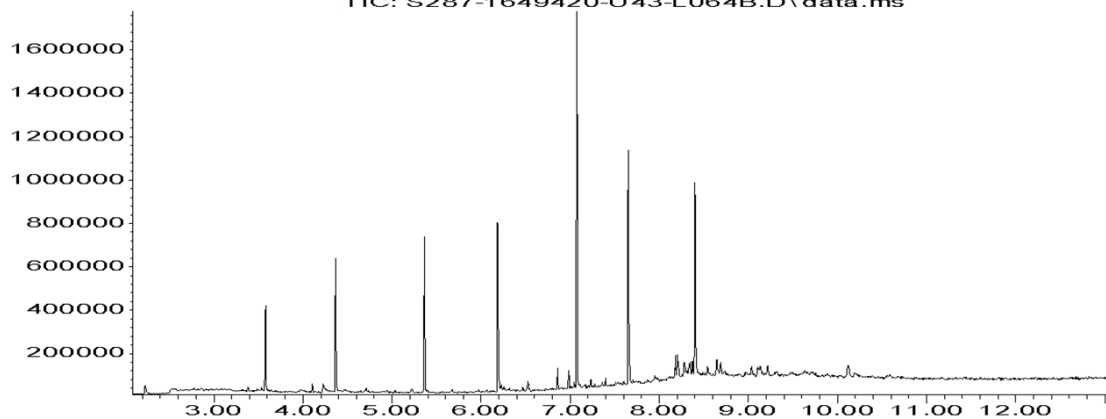
Analytical Report Number : 20-35360

Project / Site name: Kestrel Park - Bursledon

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP01-ES-0.20	None Supplied	S	1649420	c	Free cyanide in soil	L080-PL	c
TP02-ES-0.20	None Supplied	S	1649421	c	Free cyanide in soil	L080-PL	c
TP03-ES-0.20	None Supplied	S	1649422	c	Free cyanide in soil	L080-PL	c
TP04-ES-0.20	None Supplied	S	1649423	c	Free cyanide in soil	L080-PL	c
TP05-ES-0.20	None Supplied	S	1649424	c	Free cyanide in soil	L080-PL	c
TP06-ES-0.20	None Supplied	S	1649425	c	Free cyanide in soil	L080-PL	c
TP07-ES-0.20	None Supplied	S	1649426	c	Free cyanide in soil	L080-PL	c
TP08-ES-0.20	None Supplied	S	1649427	c	Free cyanide in soil	L080-PL	c
TP09-ES-0.20	None Supplied	S	1649428	c	Free cyanide in soil	L080-PL	c
TP10-ES-0.20	None Supplied	S	1649429	c	Free cyanide in soil	L080-PL	c
TP11-ES-0.20	None Supplied	S	1649430	c	Free cyanide in soil	L080-PL	c
TP12-ES-0.20	None Supplied	S	1649431	c	Free cyanide in soil	L080-PL	c
TP13-ES-0.20	None Supplied	S	1649432	c	Free cyanide in soil	L080-PL	c
TP14-ES-0.20	None Supplied	S	1649433	c	Free cyanide in soil	L080-PL	c
TP15-ES-0.20	None Supplied	S	1649434	c	Free cyanide in soil	L080-PL	c

Abundance

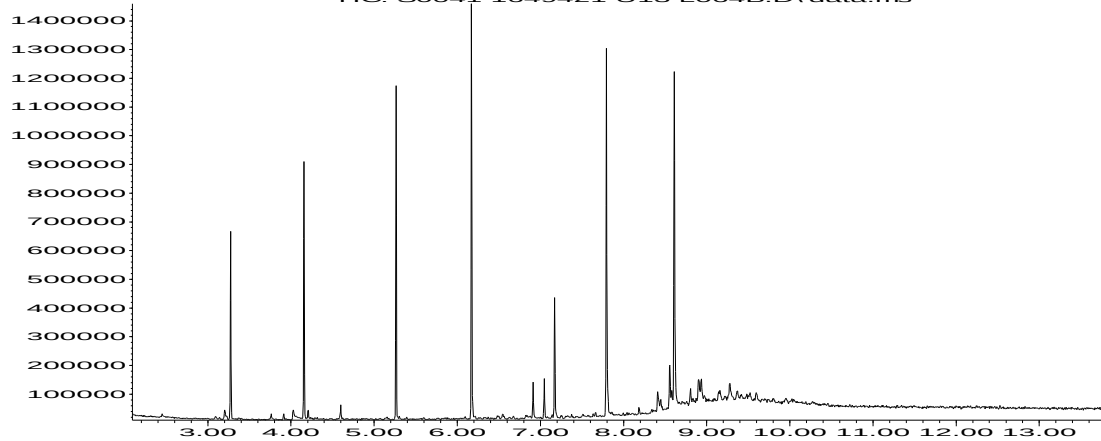
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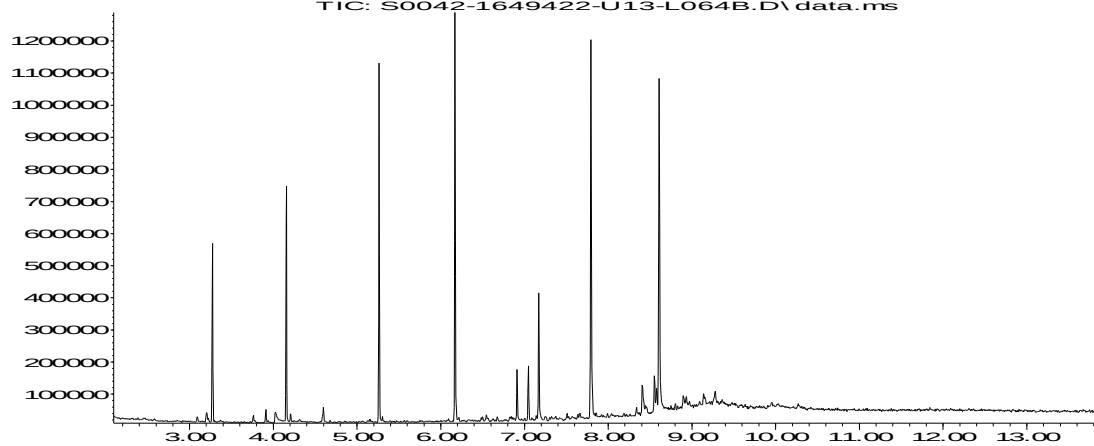
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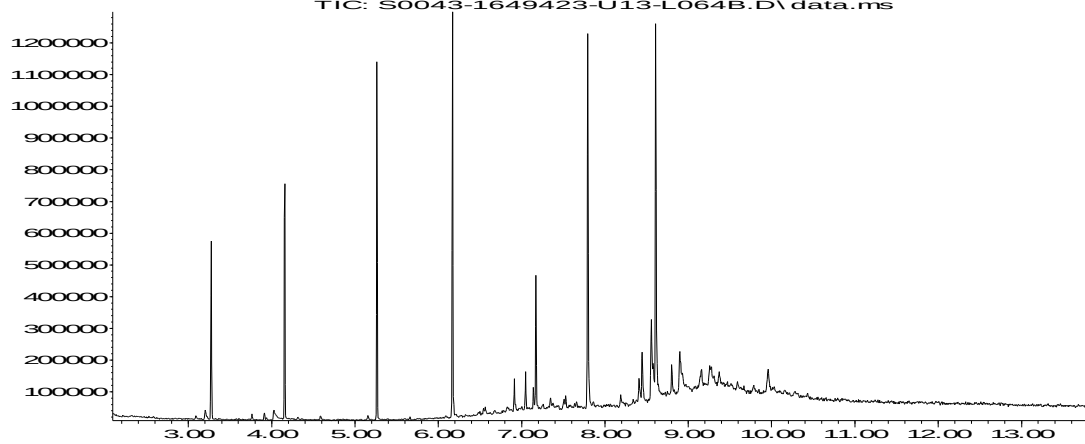
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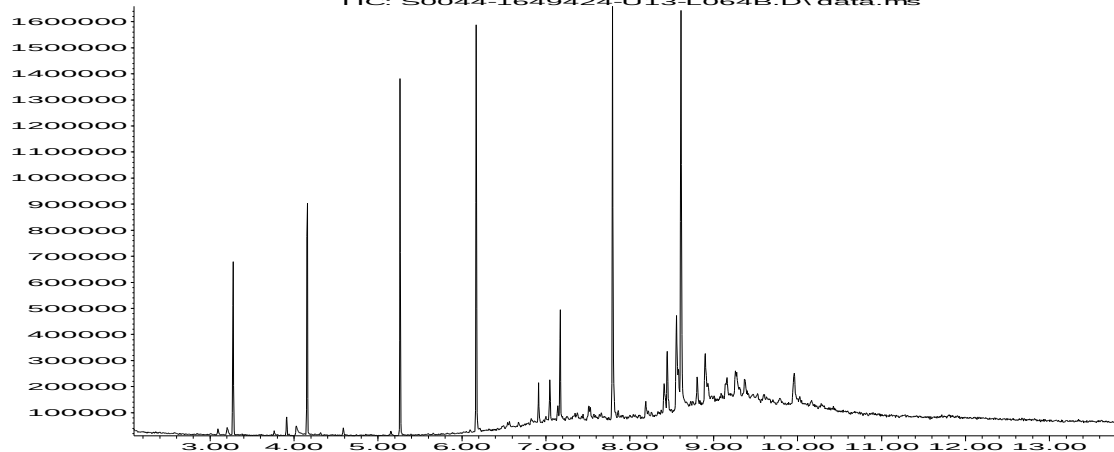
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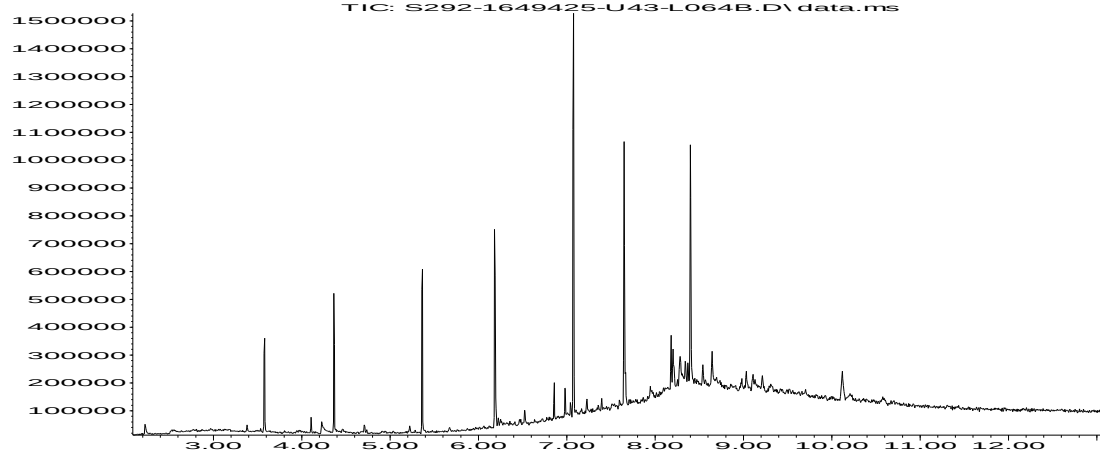
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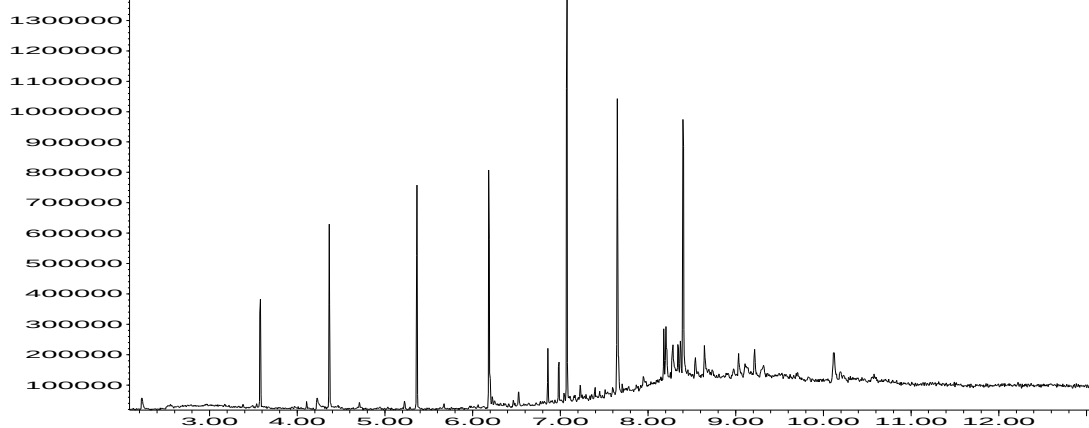
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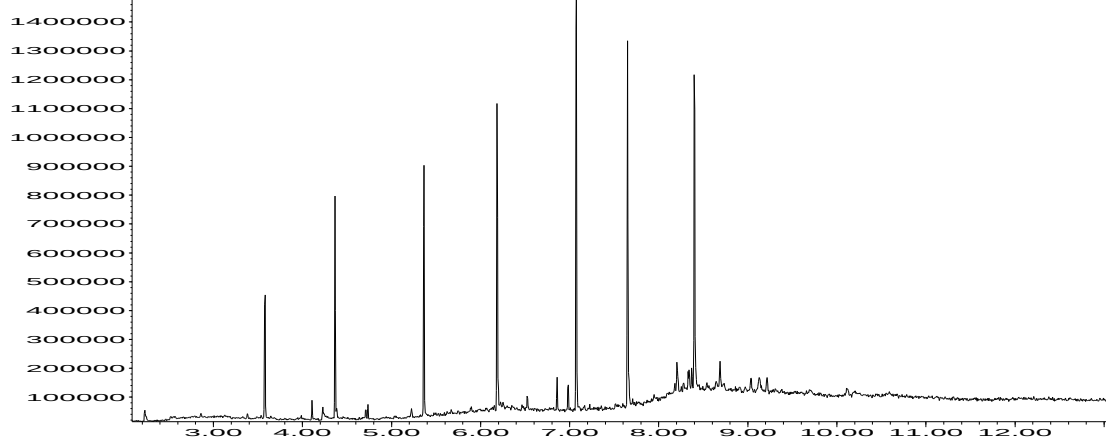
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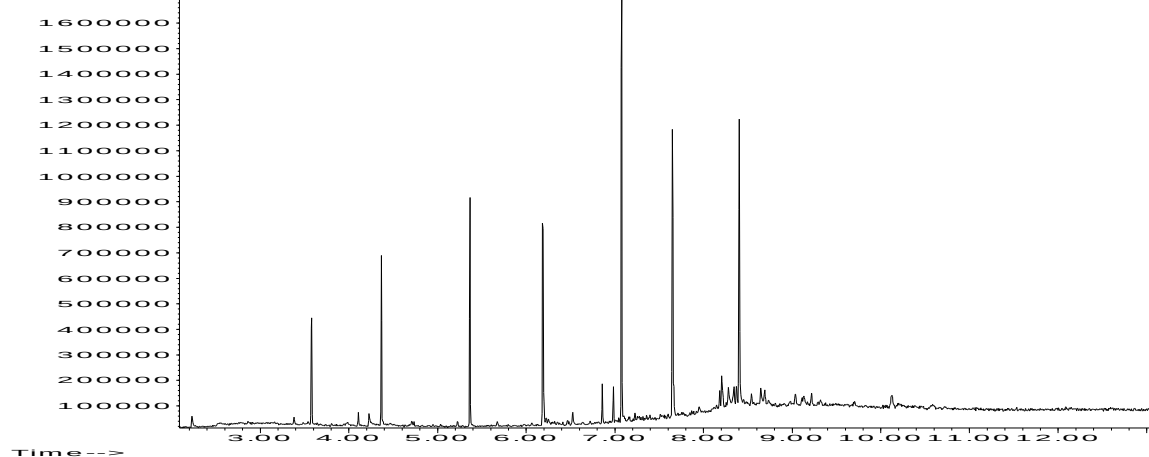
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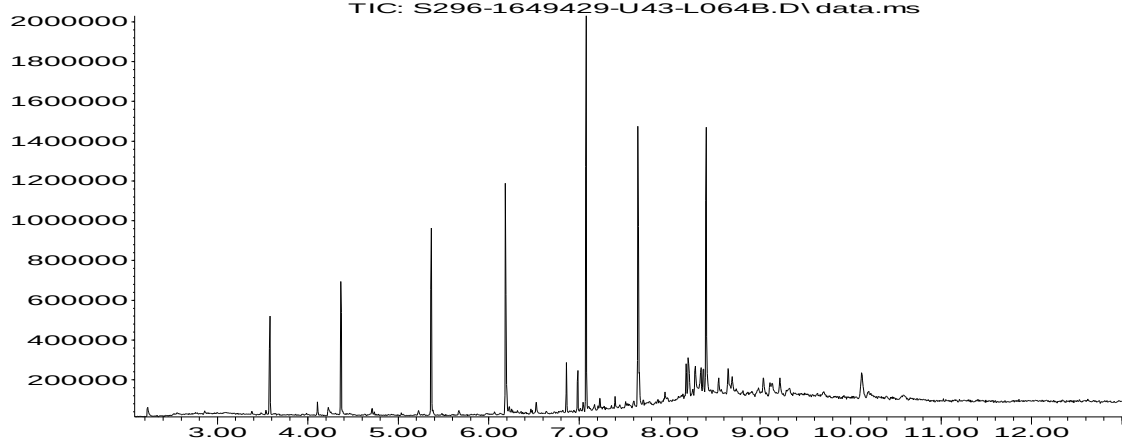
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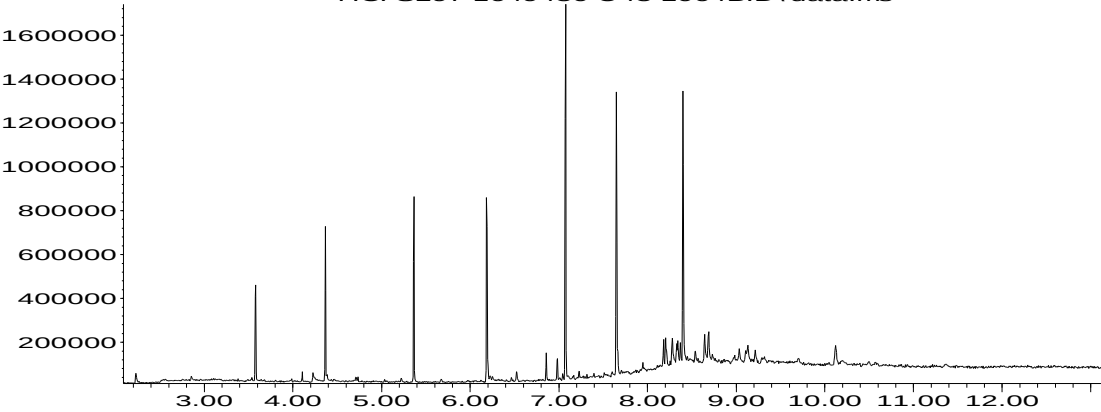
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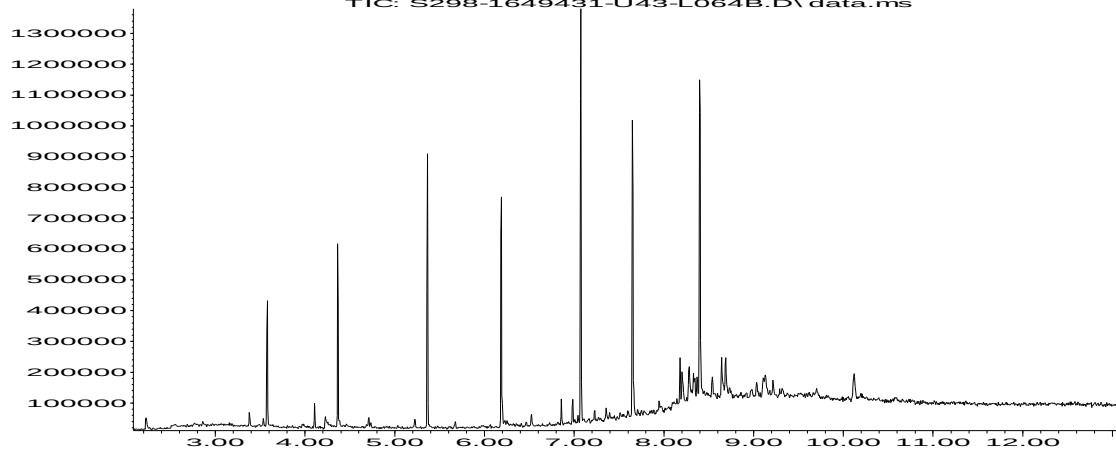
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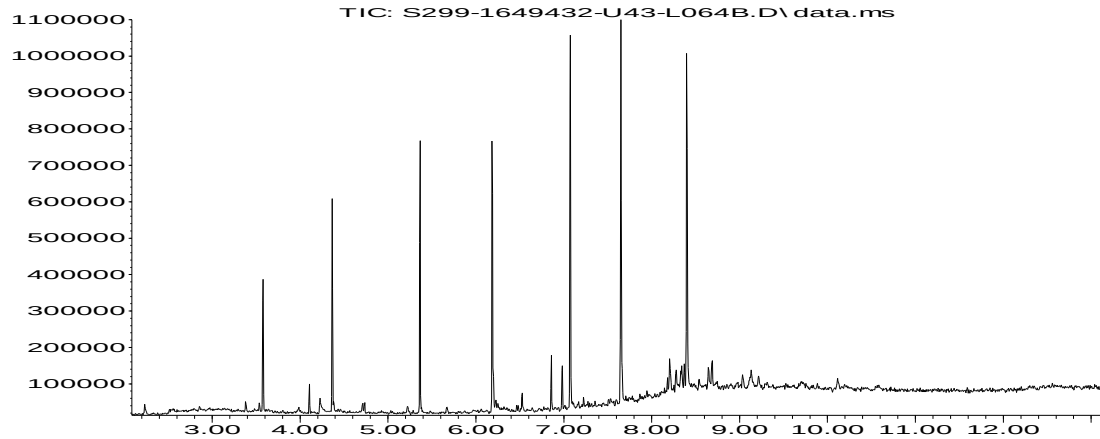
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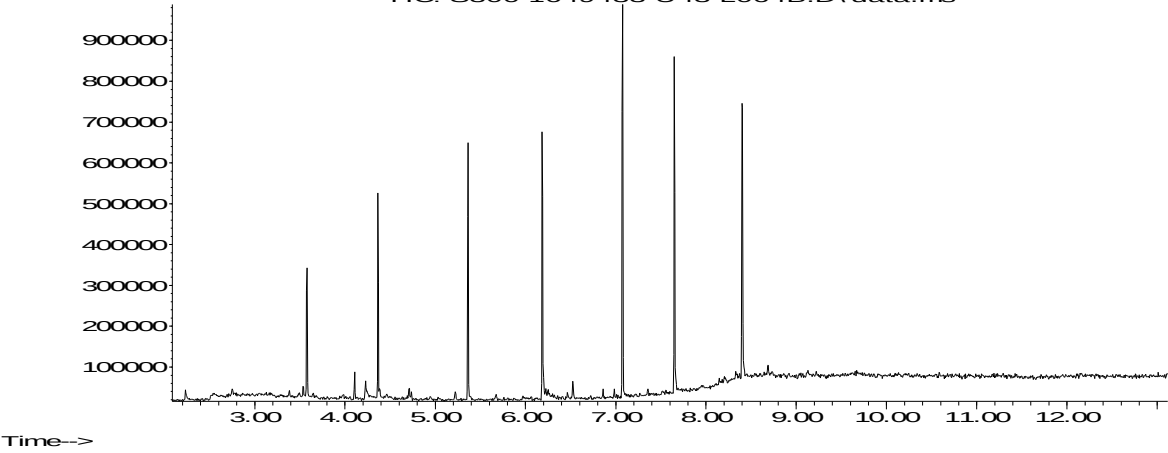
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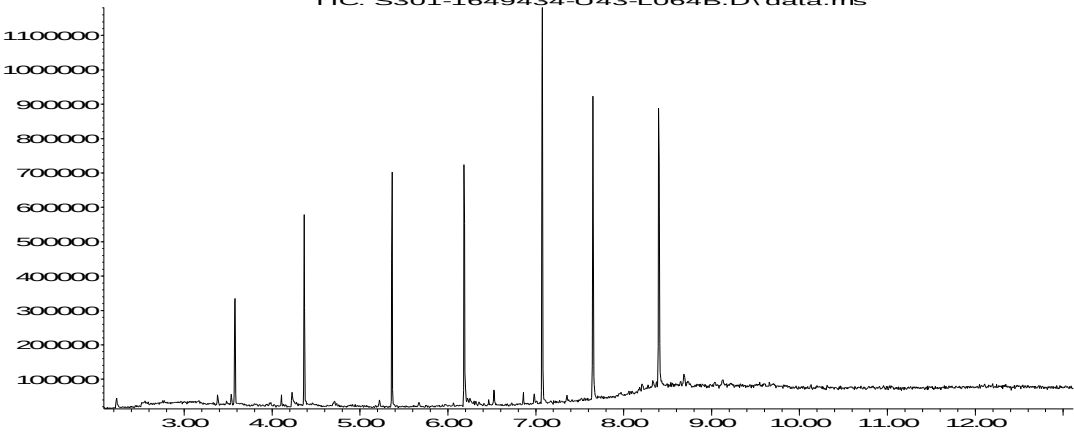
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Abundance

TIC: S301-1649434-U43-L064B.D\data.ms



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Hydrock

C-08162 stats01, Summary Human Health

Appendix L Cover system information

High Visibility Technical Datasheet

Highly visible, Lotrak® Alarm18 has been specifically developed as a contaminated ground warning or marker geomembrane.

Designed to complement the existing Lotrak® range, Don & Low have drawn on their expertise and knowledge of this market sector and provided a combination of factors that has resulted in the development of this multi-functional geosynthetic material.

With increasing demand for good building land, reclamation of industrial zones are becoming more common place, potential hazards are now often buried and contained underground as an alternative to removal. Good environmental construction practice utilises Lotrak® Alarm18 to notify future contractors and excavators of these hidden hazards.

Features

- ^ With good tensile strength, CBR properties and a strong visual appearance Lotrak® Alarm18 provides a high performance underground warning system
- ^ Based on well-established Lotrak® 1800, Lotrak® Alarm18 performs excellently as a separating geotextile in a wide range of civil engineering applications

Benefits

- ^ Proven superior performance
- ^ UV resistant and highly durable
- ^ Highly visible



TEST	STANDARD		Alarm18
Tensile Strength (kN/m)	EN 10319	MD CD	12 12
Elongation at max. load (%)	EN 10319	MD CD	22 18
CBR Puncture Resistance (N)	EN ISO 12236		1800
Cone Drop Penetration (mm)	EN 918		14
Pore size 90% finer than (microns)	EN ISO 12956		200
Water Permeability (x 10 ⁻³) (m/sec)	EN ISO 11058		18
Effect of UV Light	The polypropylene (PP) used contains a UV inhibitor		
Roll Size (m)		Width Length	4.5 100



All products are manufactured under BS EN ISO 9001.

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