

Environmental
Chemistry

Certificate of Analysis

Client: Donald Ward Ltd

Project: 22011086

Quote: BEC220124084 V1.1

Project Ref: CH3-10/1

Site: Chesterfield

Contact: Joanne Upton

Address: Donald Ward House
East Street
Ilkeston
Derbyshire
DE7 5JB

E-Mail: jupton@ward.com

Phone: 0776 738 3556

No. Samples Received: 1

Date Received: 20/01/2022

Analysis Date: 02/02/2022

Date Issued: 02/02/2022

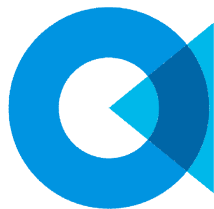
Job Status: Complete

Report Type: Final Version 01

This report supercedes any versions previously issued by the laboratory

Account Manager
Anna Jasjulevica

Authorised by the Operations Manager
Becky Batham



Client: Donald Ward Ltd
Project Name: CH3-10/1
Project No: 22011086
Date Issued: 02/02/2022

Samples Analysed

<u>Sample Reference</u>	<u>Text ID</u>	<u>Sample Date</u>	<u>Sample Type</u>	<u>Sample Description</u>
CH3-10/1	22011086-001	12/01/2022 12:25:00	WATER	Unclassified Liquid



Client: Donald Ward Ltd
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					Sample ID
					001
					Customer ID
					CH3-10/1
					Sample Type
					WATER
					Sampling Date
					12/01/2022
Analysis	Method Code	MDL	Units	Accred.	
Ammoniacal Nitrogen as N	KONENS	0.01	mg/l	N	2.00
>C6-C7 Aliphatic HS_1D_AL	GROHSA/BTEXHSA	0.1	mg/l	N	<0.100
>C7-C8 Aliphatic HS_1D_AL	GROHSA/BTEXHSA	0.1	mg/l	N	<0.100
>C7-C8 Aromatic HS_1D_AR	GROHSA/BTEXHSA	0.005	mg/l	N	<0.005
>C8-C10 Aliphatic HS_1D_AL	GROHSA/BTEXHSA	0.1	mg/l	N	<0.100
>C8-C10 Aromatic HS_1D_AR	GROHSA/BTEXHSA	0.02	mg/l	N	<0.020
C5-C6 Aliphatic HS_1D_AL	GROHSA/BTEXHSA	0.1	mg/l	N	<0.100
C5-C7 Aromatic HS_1D_AR	GROHSA/BTEXHSA	0.005	mg/l	N	<0.005
Total GRO C5-C10 HS_1D_Total	GROHSA/BTEXHSA	0.1	mg/l	N	<0.100
Chromium (III)	CALC_CR3	0.01	mg/l	N	<0.010
Conductivity at 25°C	PHCONDW	100	µS/cm	N	1650
pH	PHCONDW	1	pH units	N	7.8
Chromium (VI) as Cr	KONENS	0.003	mg/l	N	<0.003
Arsenic as As	ICPMSW (Dissolved)	0.001	mg/l	N	0.001
Cadmium as Cd	ICPMSW (Dissolved)	0.00002	mg/l	N	0.00023
Total Chromium as Cr	ICPMSW (Dissolved)	0.001	mg/l	N	<0.001
Copper as Cu	ICPMSW (Dissolved)	0.001	mg/l	N	0.044
Lead as Pb	ICPMSW (Dissolved)	0.001	mg/l	N	0.001
Mercury as Hg	ICPMSW (Dissolved)	0.00003	mg/l	N	<0.00003



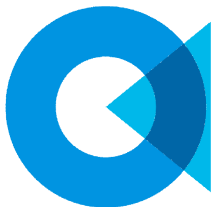
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					Sampling Date
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Analysis	Method Code	MDL	Units	Accred.	
Nickel as Ni	ICPMSW (Dissolved)	0.001	mg/l	N	0.020
Selenium as Se	ICPMSW (Dissolved)	0.001	mg/l	N	<0.001
Zinc as Zn	ICPMSW (Dissolved)	0.002	mg/l	N	0.247
Total Chromium as Cr	ICPWATVAR (Dissolved)	0.01	mg/l	N	<0.01
Total Sulphur as SO4	ICPWATVAR (Dissolved)	3	mg/l	N	429
Benzene HS_1D_AR	BTEXHSA	5	µg/l	N	<5
Ethylbenzene HS_1D_AR	BTEXHSA	5	µg/l	N	<5
m/p-Xylene HS_1D_AR	BTEXHSA	10	µg/l	N	<10
o-Xylene HS_1D_AR	BTEXHSA	5	µg/l	N	<5
Toluene HS_1D_AR	BTEXHSA	5	µg/l	N	<5
Acenaphthene	PAHMSW	0.01	µg/l	N	<0.01
Acenaphthylene	PAHMSW	0.01	µg/l	N	<0.01
Anthracene	PAHMSW	0.01	µg/l	N	<0.01
Benzo[a]anthracene	PAHMSW	0.01	µg/l	N	0.02
Benzo[a]pyrene	PAHMSW	0.01	µg/l	N	0.04
Benzo[b]fluoranthene	PAHMSW	0.01	µg/l	N	0.05
Benzo[g,h,i]perylene	PAHMSW	0.01	µg/l	N	0.02
Benzo[k]fluoranthene	PAHMSW	0.01	µg/l	N	0.02
Chrysene	PAHMSW	0.01	µg/l	N	0.03



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					WATER
					Sampling Date
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Analysis	Method Code	MDL	Units	Accred.	
Dibenzo[a,h]anthracene	PAHMSW	0.01	µg/l	N	<0.01
Fluoranthene	PAHMSW	0.01	µg/l	N	0.03
Fluorene	PAHMSW	0.01	µg/l	N	<0.01
Indeno[1,2,3-cd]pyrene	PAHMSW	0.01	µg/l	N	0.03
Naphthalene	PAHMSW	0.01	µg/l	N	0.02
Phenanthrene	PAHMSW	0.01	µg/l	N	0.01
Pyrene	PAHMSW	0.01	µg/l	N	0.12
Total PAH 16	PAHMSW	0.16	µg/l	N	0.45
>C10-C12 (Aliphatic) EH_CU_1D_AL	TPHFID (Aliphatic)	0.01	mg/l	N	<0.01
>C12-C16 (Aliphatic) EH_CU_1D_AL	TPHFID (Aliphatic)	0.01	mg/l	N	0.03
>C16-C21 (Aliphatic) EH_CU_1D_AL	TPHFID (Aliphatic)	0.01	mg/l	N	0.09
>C21-C35 (Aliphatic) EH_CU_1D_AL	TPHFID (Aliphatic)	0.01	mg/l	N	0.75
Total TPH >C8-C40 (Aliphatic) EH_CU_1D_AL	TPHFID (Aliphatic)	0.01	mg/l	N	0.91
>C10-C12 (Aromatic) EH_CU_1D_AR	TPHFID (Aromatic)	0.01	mg/l	N	<0.01
>C12-C16 (Aromatic) EH_CU_1D_AR	TPHFID (Aromatic)	0.01	mg/l	N	0.01
>C16-C21 (Aromatic) EH_CU_1D_AR	TPHFID (Aromatic)	0.01	mg/l	N	0.04
>C21-C35 (Aromatic) EH_CU_1D_AR	TPHFID (Aromatic)	0.01	mg/l	N	0.16
Total TPH >C8-C40 (Aromatic) EH_CU_1D_AR	TPHFID (Aromatic)	0.01	mg/l	N	0.24



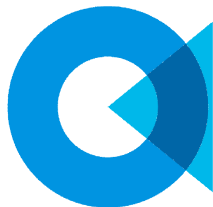
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Deviating Sample Report

Sample Reference	Text ID	Reported Name	Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time
CH3-10/1	22011086-001	CALC_CR3						✓
CH3-10/1	22011086-001	KONENS						✓
CH3-10/1	22011086-001	KONENS						✓
CH3-10/1	22011086-001	PHCONDW						✓
CH3-10/1	22011086-001	PAHMSW						✓

Analysis Method

<u>Analysis</u>	<u>Analysis Type</u>	<u>Analysis Method</u>
BTEXHSA	ORGANIC	Unfiltered
CALC_CR3	CHEM	
GROHSA	ORGANIC	Unfiltered
GROHSA/BTEXHSA	ORGANIC	
HCEXTW	ORGANIC	Unfiltered
ICPMSW (Dissolved)	METALS	Unfiltered
ICPWATVAR (Dissolved)	METALS	Filtered
KONENS	INORGANIC	Filtered
PAHMSW	ORGANIC	Unfiltered
PHCONDW	INORGANIC	Unfiltered
TPHFID (Aliphatic)	ORGANIC	Unfiltered
TPHFID (Aromatic)	ORGANIC	Unfiltered



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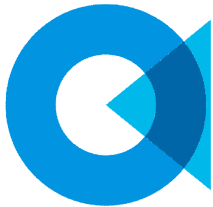
Result Report Notes

Letters alongside results signify that the result has associated report notes.
The report notes are as follows:

<u>Letter</u>	<u>Note</u>
A	Due to the matrix of the sample the laboratory has had to deviate from our standard protocols to be able to process the sample and provide a result. Where applicable the accreditation has been removed and this should be taken into consideration when utilising the data.
B	The QC associated with this result has not wholly met the QMS requirements, the accreditation has therefore been removed. However, the Laboratory has confidence in the performance of the method as a whole and that the integrity of the data has not been significantly compromised.
C	Due to matrix interference the internal standard and/or surrogate has not met the QMS requirements. This should be taken into consideration when utilising the data.
D	A non-standard volume or mass has been used for this test which has resulted in a raised detection limit.
E	Due to recoveries beyond our calibration range and following the maximum size of dilution allowed, the result cannot be quantified and as such the result will appear as a greater than symbol (>) with the accreditation removed. This data should be used for indicative purposes only.
F	Based on the sample history, appearance and smell a dilution was applied prior to testing. Unfortunately, the result is either above (>) or below (<) our calibration range. Results above our calibration range have accreditation removed. The data should be used for indicative purposes only.
G	The day 5 oxygen reading was below the capability of the instrument to detect, and therefore the calculated BOD has been reported unaccredited for guidance purposes only.

HWOL Acronym Key

<u>Acronym</u>	<u>Description</u>
HS	Headspace Analysis
EH	Extractable Hydrocarbons - i.e everything extracted by the solvent(s)
CU	Clean up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
+	Operator to indicate cumulative e.g. EH_CU+HS_1D_Total



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Additional Information

This report refers to samples as received, and SOCOTEC UK Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis
M = MCERT accredited analysis
N = Unaccredited analysis

Any units marked with ^ signify results are reported on a dry weight basis of 105° c.

All Air Dried and Ground Samples (ADG) are oven dried at less than 35° c.

This report shall not be reproduced except in full and with approval from the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any samples marked with * are not covered by our scope of UKAS accreditation. If applicable, further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with ‡ have had MCERTS accreditation removed for this result

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis
NA = Sample is not amenable for the required analysis
ND = Results cannot be determined

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the Subcontracted lab for information regarding any deviancies for this analysis.

End of Certificate of Analysis