



ALS Environmental Ltd

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www.alsenvironmental.co.uk

**Mr Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall WS6 6AE
Staffordshire**

07 June 2022

Test Report: COV/2319184/2022

Dear Mr Morris

Analysis of your sample(s) received on 21 May 2022 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Environmental Ltd and we look forward to receiving your next samples.

Yours Sincerely,

Signed:

Name: A. Zunzunegui

Title: Organics Chemistry Manager



EMS 675527

OHS 542058

Report Summary

Mr Andy Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE



ANALYSED BY



Date of Issue: **07 June 2022**

Report Number: **COV/2319184/2022**

Issue **1**

This issue replaces
all previous issues

Job Description: Water Analysis

Job Location: Woodcote Quarry

Number of Samples
included in this report **3**

Job Received: **21 May 2022**

Number of Test Results
included in this report **147**

Analysis Commenced: **23 May 2022**

Signed:

A handwritten signature in black ink, appearing to read 'A. Zunzunegui'.

Name: **A. Zunzunegui**

Date: **07 June 2022**

Title: **Organics Chemistry Manager**

ALS Environmental Ltd was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

This test report is not a statement of conformity to any specification or standard.

This communication has been sent to you by ALS Environmental Ltd. Registered in England and Wales. Registration No. 02148934. Registered Office: ALS Environmental Limited, Torrington Avenue, Coventry, CV4 9GU.

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2319184/2022**
Laboratory Number: **21657536**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	26/05/2022	Y Cov	WAS049
Calcium , Total as Ca	96.9	mg/l	26/05/2022	Y Cov	WAS049
Chromium , Total as Cr	0.012	mg/l	26/05/2022	Y Cov	WAS049
Copper, Total as Cu	0.044	mg/l	26/05/2022	Y Cov	WAS049
Iron , Total as Fe	5.22	mg/l	26/05/2022	Y Cov	WAS049
Lead , Total as Pb	0.023	mg/l	26/05/2022	Y Cov	WAS049
Magnesium, Total as Mg	3.4	mg/l	26/05/2022	Y Cov	WAS049
Manganese , Total as Mn	910	ug/l	26/05/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00015	mg/l	25/05/2022	Y Cov	WAS013
Nickel , Total as Ni	26.7	ug/l	26/05/2022	Y Cov	WAS049
Potassium , Total as K	2.31	mg/l	26/05/2022	Y Cov	WAS049
Sodium , Total as Na	9.74	mg/l	26/05/2022	Y Cov	WAS049
Zinc, Total as Zn	0.06	mg/l	26/05/2022	Y Cov	WAS049
pH	8.1	pH units	25/05/2022	Y Cov	WAS039
Conductivity- Electrical 20C	507	uS/cm	25/05/2022	Y Cov	WAS039
Alkalinity as CaCO3	212	mg/l	25/05/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	23/05/2022	Y Cov	WAS067
Chloride as Cl	31.4	mg/l	23/05/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	2.3	mg/l	23/05/2022	N Cov	WAS036
Sulphate as SO4	44.4	mg/l	23/05/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	9.8	mg/l	25/05/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	30/05/2022	Y Cov	WAS001
COD (Total)	Analyst Com	mg/l	07/06/2022	Y Cov	WAS040

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Sample Matrix: **Ground Water**
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Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	3.9	mg/l	25/05/2022	Y Cov	WAS005
EH >C6 - C40	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	30/05/2022	N Cov	GEO35
Arsenic, total as As (mg/l)	0.0049	mg/l	27/05/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.00098	mg/l	27/05/2022	Y Cov	WAS076
Naphthalene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Acenaphthylene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Acenaphthene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Fluorene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Phenanthrene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Anthracene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Fluoranthene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Pyrene	0.201	ug/l	30/05/2022	Y Cov	GEO81
Benzo(a)anthracene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Chrysene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.200	ug/l	30/05/2022	Y Cov	GEO81
Benzo(a)pyrene	0.259	ug/l	30/05/2022	Y Cov	GEO81
Indeno(123cd)pyrene	0.291	ug/l	30/05/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.200	ug/l	30/05/2022	Y Cov	GEO81

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Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(ghi)perylene	0.313	ug/l	30/05/2022	Y Cov	GEO81
PAH, Total of 16	1.06	ug/l	30/05/2022	N Cov	GEO81

Analyst Comments for 21657536:

This sample has been analysed for pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day), Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(123cd)pyrene, Dibenzo(ah)anthracene, Benzo(ghi)perylene, PAH, Total of 16 outside recommended stability times. It is therefore possible that the results provided may be compromised. {/**}Reporting limits raised for PAH due to nature of sample matrix.
Unable to analyse total COD due to matrix Interference.

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **A. Zunzunegui**

Date: **07 June 2022**

Title: **Organics Chemistry Manager**

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Certificate of Analysis

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Report Number: **COV/2319184/2022**
Laboratory Number: **21657537**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	25/05/2022	Y Cov	WAS049
Calcium , Total as Ca	57.8	mg/l	25/05/2022	Y Cov	WAS049
Chromium , Total as Cr	<0.002	mg/l	25/05/2022	Y Cov	WAS049
Copper, Total as Cu	0.017	mg/l	25/05/2022	Y Cov	WAS049
Iron , Total as Fe	<0.23	mg/l	25/05/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	25/05/2022	Y Cov	WAS049
Magnesium, Total as Mg	10.3	mg/l	25/05/2022	Y Cov	WAS049
Manganese , Total as Mn	<7.00	ug/l	25/05/2022	Y Cov	WAS049
Mercury, Total as Hg	<0.00001	mg/l	25/05/2022	Y Cov	WAS013
Nickel , Total as Ni	<3.00	ug/l	25/05/2022	Y Cov	WAS049
Potassium , Total as K	4.12	mg/l	25/05/2022	Y Cov	WAS049
Sodium , Total as Na	37.1	mg/l	25/05/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	25/05/2022	Y Cov	WAS049
pH	7.9	pH units	25/05/2022	Y Cov	WAS039
Conductivity- Electrical 20C	560	uS/cm	25/05/2022	Y Cov	WAS039
Alkalinity as CaCO3	138	mg/l	25/05/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	23/05/2022	Y Cov	WAS067
Chloride as Cl	72.4	mg/l	23/05/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	5.2	mg/l	23/05/2022	N Cov	WAS036
Sulphate as SO4	39.8	mg/l	23/05/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	30/05/2022	Y Cov	WAS001
COD (Total)	<11.0	mg/l	01/06/2022	Y Cov	WAS040

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Report Number: **COV/2319184/2022**
Laboratory Number: **21657537**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.6	mg/l	24/05/2022	Y Cov	WAS005
EH >C6 - C40	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	30/05/2022	N Cov	GEO35
Arsenic, total as As (mg/l)	0.00032	mg/l	27/05/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	27/05/2022	Y Cov	WAS076
Naphthalene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Acenaphthylene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Acenaphthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Fluorene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Phenanthrene	0.010	ug/l	26/05/2022	Y Cov	GEO81
Anthracene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Fluoranthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Pyrene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(a)anthracene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Chrysene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.010	ug/l	26/05/2022	Y Cov	GEO81

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Report Number: **COV/2319184/2022**
Laboratory Number: **21657537**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(ghi)perylene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
PAH, Total of 16	0.010	ug/l	26/05/2022	N Cov	GEO81

Analyst Comments for 21657537:

This sample has been analysed for pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day), COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised.

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG),

F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **A. Zunzunegui**

Date: **07 June 2022**

Title: **Organics Chemistry Manager**

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2319184/2022**
Laboratory Number: **21657538**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
Sample Received: **21 May 2022**
Analysis Complete: **07 June 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	25/05/2022	Y Cov	WAS049
Calcium , Total as Ca	60.4	mg/l	25/05/2022	Y Cov	WAS049
Chromium , Total as Cr	<0.002	mg/l	25/05/2022	Y Cov	WAS049
Copper, Total as Cu	0.034	mg/l	25/05/2022	Y Cov	WAS049
Iron , Total as Fe	<0.23	mg/l	25/05/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	25/05/2022	Y Cov	WAS049
Magnesium, Total as Mg	10.7	mg/l	25/05/2022	Y Cov	WAS049
Manganese , Total as Mn	<7.00	ug/l	25/05/2022	Y Cov	WAS049
Mercury, Total as Hg	<0.00001	mg/l	25/05/2022	Y Cov	WAS013
Nickel , Total as Ni	<3.00	ug/l	25/05/2022	Y Cov	WAS049
Potassium , Total as K	4.30	mg/l	25/05/2022	Y Cov	WAS049
Sodium , Total as Na	39.0	mg/l	25/05/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	25/05/2022	Y Cov	WAS049
pH	8.0	pH units	25/05/2022	Y Cov	WAS039
Conductivity- Electrical 20C	566	uS/cm	25/05/2022	Y Cov	WAS039
Alkalinity as CaCO3	138	mg/l	25/05/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	23/05/2022	Y Cov	WAS067
Chloride as Cl	73.4	mg/l	23/05/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	5.0	mg/l	23/05/2022	N Cov	WAS036
Sulphate as SO4	40.0	mg/l	23/05/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	7.5	mg/l	25/05/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	30/05/2022	Y Cov	WAS001
COD (Total)	14.0	mg/l	01/06/2022	Y Cov	WAS040

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Report Number: **COV/2319184/2022**
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Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **19 May 2022**
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Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.6	mg/l	25/05/2022	Y Cov	WAS005
EH >C6 - C40	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	30/05/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	30/05/2022	N Cov	GEO35
Arsenic, total as As (mg/l)	0.00035	mg/l	27/05/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	27/05/2022	Y Cov	WAS076
Naphthalene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Acenaphthylene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Acenaphthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Fluorene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Phenanthrene	0.011	ug/l	26/05/2022	Y Cov	GEO81
Anthracene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Fluoranthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Pyrene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(a)anthracene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Chrysene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.010	ug/l	26/05/2022	Y Cov	GEO81

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Analysis Complete: **07 June 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(ghi)perylene	<0.010	ug/l	26/05/2022	Y Cov	GEO81
PAH, Total of 16	0.011	ug/l	26/05/2022	N Cov	GEO81

Analyst Comments for 21657538:

This sample has been analysed for pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day), COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised.

This issue replaces all previous issues

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Signed:

Name: **A. Zunzunegui**

Date: **07 June 2022**

Title: **Organics Chemistry Manager**

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Mr Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall WS6 6AE
Staffordshire

19 July 2022

Test Report: COV/2338100/2022

Dear Mr Morris

Analysis of your sample(s) submitted on 01 July 2022 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Environmental Ltd and we look forward to receiving your next samples.

Yours Sincerely,

Signed:

Name: A. Zunzunegui

Title: Organics Chemistry Manager



1314



EMS675527

OHS 542058



Report Summary

ANALYSED BY

Mr Andy Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE



Date of Issue: **19 July 2022**

Report Number: **COV/2338100/2022**

Issue **1**

This issue replaces
all previous issues

Job Description: Water Analysis

Job Location: Woodcote Quarry

Number of Samples
included in this report **4**

Job Received: **01 July 2022**

Number of Test Results
included in this report **118**

Analysis Commenced: **01 July 2022**

Signed:

Name: **A. Zunzunegui**

Date: **19 July 2022**

Title: **Organics Chemistry Manager**

ALS Environmental Ltd was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

This test report is not a statement of conformity to any specification or standard.

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Page 1 of 12

Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784281**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **1** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	18/07/2022	Y Cov	WAS049
Calcium , Total as Ca	103	mg/l	18/07/2022	Y Cov	WAS049
Chromium , Total as Cr	0.005	mg/l	13/07/2022	Y Cov	WAS049
Copper, Total as Cu	0.018	mg/l	13/07/2022	Y Cov	WAS049
Iron , Total as Fe	1.47	mg/l	18/07/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	18/07/2022	Y Cov	WAS049
Magnesium, Total as Mg	2.8	mg/l	18/07/2022	Y Cov	WAS049
Manganese , Total as Mn	317	ug/l	13/07/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00004	mg/l	12/07/2022	Y Cov	WAS013
Nickel, Total as Ni	0.042	mg/l	18/07/2022	Y Cov	WAS049
Potassium , Total as K	1.94	mg/l	18/07/2022	Y Cov	WAS049
Sodium , Total as Na	10.9	mg/l	18/07/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	18/07/2022	Y Cov	WAS049
pH	8.0	pH units	02/07/2022	Y Cov	WAS039
Conductivity- Electrical 20C	525	uS/cm	02/07/2022	Y Cov	WAS039
Alkalinity as CaCO3	208	mg/l	02/07/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	02/07/2022	Y Cov	WAS067
Chloride as Cl	29.3	mg/l	04/07/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	3.3	mg/l	04/07/2022	N Cov	WAS036
Sulphate as SO4	40.4	mg/l	04/07/2022	N Cov	WAS036
Dissolved Oxygen, Unfixed	9.6	mg/l	04/07/2022	N Cov	WAS052
BOD + ATU (5 day)	2	mg/l	09/07/2022	Y Cov	WAS001
COD (Total)	44.0	mg/l	13/07/2022	Y Cov	WAS040

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784281**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **1** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.6	mg/l	04/07/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	07/07/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	04/07/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	04/07/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0019	mg/l	05/07/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	05/07/2022	Y Cov	WAS076

Analyst Comments for 21784281:

This sample has been analysed for pH, BOD + ATU (5 day), Magnesium, Total as Mg, Sodium Total as Na, COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised.

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

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Signed:

A handwritten signature in black ink, appearing to read 'A. Zunzunegui', enclosed within a circular scribble.

Name: **A. Zunzunegui**

Date: **19 July 2022**

Title: **Organics Chemistry Manager**

Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784282**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **2** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	0.0013	mg/l	18/07/2022	Y Cov	WAS049
Calcium , Total as Ca	70.3	mg/l	18/07/2022	Y Cov	WAS049
Chromium , Total as Cr	0.017	mg/l	18/07/2022	Y Cov	WAS049
Copper, Total as Cu	0.022	mg/l	18/07/2022	Y Cov	WAS049
Iron , Total as Fe	2.63	mg/l	18/07/2022	Y Cov	WAS049
Lead , Total as Pb	0.011	mg/l	18/07/2022	Y Cov	WAS049
Magnesium, Total as Mg	7.5	mg/l	18/07/2022	Y Cov	WAS049
Manganese , Total as Mn	856	ug/l	18/07/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00014	mg/l	12/07/2022	Y Cov	WAS013
Nickel, Total as Ni	0.114	mg/l	18/07/2022	Y Cov	WAS049
Potassium , Total as K	1.91	mg/l	18/07/2022	Y Cov	WAS049
Sodium , Total as Na	11.7	mg/l	18/07/2022	Y Cov	WAS049
Zinc, Total as Zn	0.02	mg/l	18/07/2022	Y Cov	WAS049
pH	7.7	pH units	02/07/2022	Y Cov	WAS039
Conductivity- Electrical 20C	468	uS/cm	02/07/2022	Y Cov	WAS039
Alkalinity as CaCO3	188	mg/l	02/07/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	02/07/2022	Y Cov	WAS067
Chloride as Cl	12.8	mg/l	04/07/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	2.1	mg/l	04/07/2022	N Cov	WAS036
Sulphate as SO4	60.0	mg/l	04/07/2022	N Cov	WAS036
Dissolved Oxygen, Unfixed	9.1	mg/l	04/07/2022	N Cov	WAS052
BOD + ATU (5 day)	1	mg/l	09/07/2022	Y Cov	WAS001
COD (Total)	250	mg/l	15/07/2022	Y Cov	WAS040

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784282**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **2** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.5	mg/l	04/07/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	07/07/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	04/07/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	04/07/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0051	mg/l	05/07/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.0023	mg/l	05/07/2022	Y Cov	WAS076

Analyst Comments for 21784282:

This sample has been analysed for pH, BOD + ATU (5 day), Copper, Total as Cu, Magnesium, Total as Mg, Sodium Total as Na, COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised.

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

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Signed:

A handwritten signature in black ink, appearing to read 'A. Zunzunegui', enclosed within a circular scribble.

Name: **A. Zunzunegui**

Date: **19 July 2022**

Title: **Organics Chemistry Manager**

Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784283**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **3** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	18/07/2022	Y Cov	WAS049
Calcium , Total as Ca	54.7	mg/l	18/07/2022	Y Cov	WAS049
Chromium , Total as Cr	<0.002	mg/l	13/07/2022	Y Cov	WAS049
Copper, Total as Cu	0.014	mg/l	13/07/2022	Y Cov	WAS049
Iron , Total as Fe	<0.23	mg/l	18/07/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	18/07/2022	Y Cov	WAS049
Magnesium, Total as Mg	9.9	mg/l	18/07/2022	Y Cov	WAS049
Manganese , Total as Mn	11.2	ug/l	13/07/2022	Y Cov	WAS049
Mercury, Total as Hg	<0.00001	mg/l	12/07/2022	Y Cov	WAS013
Nickel, Total as Ni	<0.003	mg/l	18/07/2022	Y Cov	WAS049
Potassium , Total as K	4.60	mg/l	18/07/2022	Y Cov	WAS049
Sodium , Total as Na	43.1	mg/l	18/07/2022	Y Cov	WAS049
Zinc, Total as Zn	0.04	mg/l	18/07/2022	Y Cov	WAS049
pH	7.9	pH units	02/07/2022	Y Cov	WAS039
Conductivity- Electrical 20C	552	uS/cm	02/07/2022	Y Cov	WAS039
Alkalinity as CaCO3	123	mg/l	02/07/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	02/07/2022	Y Cov	WAS067
Chloride as Cl	72.1	mg/l	04/07/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	4.4	mg/l	04/07/2022	N Cov	WAS036
Sulphate as SO4	45.6	mg/l	04/07/2022	N Cov	WAS036
Dissolved Oxygen, Unfixed	8.4	mg/l	04/07/2022	N Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	07/07/2022	Y Cov	WAS001
COD (Total)	14.0	mg/l	13/07/2022	Y Cov	WAS040

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784283**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **3** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	3.2	mg/l	04/07/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	07/07/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	07/07/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	04/07/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	03/07/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	04/07/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.00039	mg/l	05/07/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	05/07/2022	Y Cov	WAS076

Analyst Comments for 21784283:

This sample has been analysed for pH, BOD + ATU (5 day), Magnesium, Total as Mg, Sodium Total as Na, COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised.

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

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Signed:

A handwritten signature in black ink, appearing to read "A. Zunzunegui", enclosed within a thin black rectangular border.

Name: **A. Zunzunegui**

Date: **19 July 2022**

Title: **Organics Chemistry Manager**

Certificate of Analysis

ANALYSED BY



Report Number: **COV/2338100/2022**
Laboratory Number: **21784284**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH4**
Sample Matrix: **Ground Water**
Sample Date/Time: **29 June 2022**
Sample Received: **01 July 2022**
Analysis Complete: **19 July 2022**

Issue **1**
Sample **4** of **4**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Sample Received	'Empty'		01/07/2022	N Cov	N/A

Analyst Comments for 21784284: No Analyst Comment

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **A. Zunzunegui**

Date: **19 July 2022**

Title: **Organics Chemistry Manager**

ALS Environmental Ltd

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Mr Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall WS6 6AE
Staffordshire

12 August 2022

Test Report: COV/2350860/2022

Dear Mr Morris

Analysis of your sample(s) submitted on 27 July 2022 is now complete and we have pleasure in enclosing the appropriate test report(s).


An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Environmental Ltd and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: P. Patel

Title: Inorganics Chemistry Manager



1314



EMS675527

OHS 542058



Report Summary

ANALYSED BY

Mr Andy Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE



Date of Issue: **12 August 2022**

Report Number: **COV/2350860/2022**

Issue **1**

This issue replaces
all previous issues

Job Description: Water Analysis

Job Location: Woodcote Quarry

Number of Samples
included in this report **3**

Job Received: **27 July 2022**

Number of Test Results
included in this report **147**

Analysis Commenced: **28 July 2022**

Signed:

Name: **P. Patel**

Date: **12 August 2022**

Title: **Inorganics Chemistry Manager**

ALS Environmental Ltd was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

This test report is not a statement of conformity to any specification or standard.

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Page 1 of 11

Certificate of Analysis

ANALYSED BY



Report Number: **COV/2350860/2022**
Laboratory Number: **21872214**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	01/08/2022	Y Cov	WAS049
Calcium , Total as Ca	101	mg/l	01/08/2022	Y Cov	WAS049
Chromium , Total as Cr	0.014	mg/l	01/08/2022	Y Cov	WAS049
Copper, Total as Cu	<0.009	mg/l	01/08/2022	Y Cov	WAS049
Iron , Total as Fe	1.02	mg/l	01/08/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	01/08/2022	Y Cov	WAS049
Magnesium, Total as Mg	2.9	mg/l	01/08/2022	Y Cov	WAS049
Manganese , Total as Mn	183	ug/l	01/08/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00005	mg/l	09/08/2022	Y Cov	WAS013
Nickel , Total as Ni	56.2	ug/l	01/08/2022	Y Cov	WAS049
Potassium , Total as K	1.75	mg/l	01/08/2022	Y Cov	WAS049
Sodium , Total as Na	12.7	mg/l	01/08/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	01/08/2022	Y Cov	WAS049
pH	8.0	pH units	28/07/2022	Y Cov	WAS039
Conductivity- Electrical 20C	505	uS/cm	28/07/2022	Y Cov	WAS039
Alkalinity as CaCO3	194	mg/l	03/08/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	28/07/2022	Y Cov	WAS067
Chloride as Cl	29.9	mg/l	28/07/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	3.8	mg/l	28/07/2022	N Cov	WAS036
Sulphate as SO4	41.8	mg/l	28/07/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	8.7	mg/l	28/07/2022	Y Cov	WAS052
BOD + ATU (5 day)	1	mg/l	02/08/2022	Y Cov	WAS001
COD (Total)	20.0	mg/l	06/08/2022	Y Cov	WAS040

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872214**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.5	mg/l	28/07/2022	Y Cov	WAS005
EH >C6 - C40	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	01/08/2022	N Cov	GEO35
Arsenic, total as As (mg/l)	0.0014	mg/l	29/07/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	29/07/2022	Y Cov	WAS076
Naphthalene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Acenaphthylene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Acenaphthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Fluorene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Phenanthrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(a)anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Chrysene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872214**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(ghi)perylene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
PAH, Total of 16	<0.100	ug/l	02/08/2022	N Cov	GEO81

Analyst Comments for 21872214:

This sample has been analysed for COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {/}*}Reporting limits raised for PAH due to nature of sample matrix.{*/}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG),

F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **12 August 2022**

Title: **Inorganics Chemistry Manager**

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872215**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0060	mg/l	11/08/2022	Y Cov	WAS049
Calcium , Total as Ca	89.7	mg/l	11/08/2022	Y Cov	WAS049
Chromium , Total as Cr	0.035	mg/l	11/08/2022	Y Cov	WAS049
Copper, Total as Cu	<0.090	mg/l	11/08/2022	Y Cov	WAS049
Iron , Total as Fe	7.32	mg/l	11/08/2022	Y Cov	WAS049
Lead , Total as Pb	<0.060	mg/l	11/08/2022	Y Cov	WAS049
Magnesium, Total as Mg	10.5	mg/l	11/08/2022	Y Cov	WAS049
Manganese , Total as Mn	3050	ug/l	11/08/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00001	mg/l	09/08/2022	Y Cov	WAS013
Nickel , Total as Ni	222	ug/l	11/08/2022	Y Cov	WAS049
Potassium , Total as K	1.83	mg/l	11/08/2022	Y Cov	WAS049
Sodium , Total as Na	10.5	mg/l	11/08/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.180	mg/l	11/08/2022	Y Cov	WAS049
pH	7.3	pH units	28/07/2022	Y Cov	WAS039
Conductivity- Electrical 20C	475	uS/cm	28/07/2022	Y Cov	WAS039
Alkalinity as CaCO3	187	mg/l	03/08/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	28/07/2022	Y Cov	WAS067
Chloride as Cl	13.3	mg/l	28/07/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	2.5	mg/l	28/07/2022	N Cov	WAS036
Sulphate as SO4	62.7	mg/l	28/07/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	10.2	mg/l	28/07/2022	Y Cov	WAS052
BOD + ATU (5 day)	1	mg/l	02/08/2022	Y Cov	WAS001
COD (Total)	105	mg/l	06/08/2022	Y Cov	WAS040

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872215**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	5.6	mg/l	28/07/2022	Y Cov	WAS005
EH >C6 - C40	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	01/08/2022	N Cov	GEO35
Arsenic, total as As (mg/l)	0.0046	mg/l	29/07/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.0017	mg/l	29/07/2022	Y Cov	WAS076
Naphthalene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Acenaphthylene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Acenaphthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Fluorene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Phenanthrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(a)anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Chrysene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872215**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(ghi)perylene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
PAH, Total of 16	<0.100	ug/l	02/08/2022	N Cov	GEO81

Analyst Comments for 21872215:

This sample has been analysed for Magnesium, Total as Mg, Sodium Total as Na, COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {/*}
Reporting limits raised for PAH due to nature of sample matrix.
Reporting limit raised for total ICP OES metals due to interference with the internal standard. {/*}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **12 August 2022**

Title: **Inorganics Chemistry Manager**

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872216**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	02/08/2022	Y Cov	WAS049
Calcium , Total as Ca	105	mg/l	02/08/2022	Y Cov	WAS049
Chromium , Total as Cr	0.074	mg/l	09/08/2022	Y Cov	WAS049
Copper, Total as Cu	0.076	mg/l	02/08/2022	Y Cov	WAS049
Iron , Total as Fe	6.87	mg/l	02/08/2022	Y Cov	WAS049
Lead , Total as Pb	0.026	mg/l	02/08/2022	Y Cov	WAS049
Magnesium, Total as Mg	4.2	mg/l	02/08/2022	Y Cov	WAS049
Manganese , Total as Mn	1280	ug/l	02/08/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00005	mg/l	09/08/2022	Y Cov	WAS013
Nickel , Total as Ni	88.2	ug/l	02/08/2022	Y Cov	WAS049
Potassium , Total as K	2.57	mg/l	02/08/2022	Y Cov	WAS049
Sodium , Total as Na	12.2	mg/l	02/08/2022	Y Cov	WAS049
Zinc, Total as Zn	0.145	mg/l	02/08/2022	Y Cov	WAS049
pH	7.8	pH units	28/07/2022	Y Cov	WAS039
Conductivity- Electrical 20C	518	uS/cm	28/07/2022	Y Cov	WAS039
Alkalinity as CaCO3	192	mg/l	31/07/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	28/07/2022	Y Cov	WAS067
Chloride as Cl	30.3	mg/l	28/07/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	3.9	mg/l	28/07/2022	N Cov	WAS036
Sulphate as SO4	44.9	mg/l	28/07/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	9.2	mg/l	28/07/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	02/08/2022	Y Cov	WAS001
COD (Total)	101	mg/l	06/08/2022	Y Cov	WAS040

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ANALYSED BY



Report Number: **COV/2350860/2022**
Laboratory Number: **21872216**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.0	mg/l	28/07/2022	Y Cov	WAS005
EH >C6 - C40	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	01/08/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	01/08/2022	N Cov	GEO35
Arsenic, total as As (mg/l)	0.0067	mg/l	29/07/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.0013	mg/l	29/07/2022	Y Cov	WAS076
Naphthalene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Acenaphthylene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Acenaphthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Fluorene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Phenanthrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(a)anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Chrysene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.100	ug/l	02/08/2022	Y Cov	GEO81

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Report Number: **COV/2350860/2022**
Laboratory Number: **21872216**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **26 July 2022**
Sample Received: **27 July 2022**
Analysis Complete: **12 August 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(ghi)perylene	<0.100	ug/l	02/08/2022	Y Cov	GEO81
PAH, Total of 16	<0.100	ug/l	02/08/2022	N Cov	GEO81

Analyst Comments for 21872216:

This sample has been analysed for COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {(*)}Reporting limits raised for PAH due to nature of sample matrix.{(*)}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG),

F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **12 August 2022**

Title: **Inorganics Chemistry Manager**

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Mr Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall WS6 6AE
Staffordshire

02 September 2022

Test Report: COV/2359757/2022

Dear Mr Morris

Analysis of your sample(s) submitted on 16 August 2022 is now complete and we have pleasure in enclosing the appropriate test report(s).


An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Environmental Ltd and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: P. Patel

Title: Inorganics Chemistry Manager



1314



EMS675527

OHS 542058



Report Summary

ANALYSED BY

Mr Andy Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE



Date of Issue: **02 September 2022**

Report Number: **COV/2359757/2022**

Issue **1**

This issue replaces
all previous issues

Job Description: Water Analysis

Job Location: Woodcote Quarry

Number of Samples
included in this report **3**

Job Received: **16 August 2022**

Number of Test Results
included in this report **168**

Analysis Commenced: **16 August 2022**

Signed:

A handwritten signature in black ink, appearing to be 'P. Patel'.

Name: **P. Patel**

Date: **02 September 2022**

Title: **Inorganics Chemistry Manager**

ALS Environmental Ltd was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

This test report is not a statement of conformity to any specification or standard.

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Report Number: **COV/2359757/2022**
Laboratory Number: **21937374**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	24/08/2022	Y Cov	WAS049
Calcium , Total as Ca	108	mg/l	24/08/2022	Y Cov	WAS049
Chromium , Total as Cr	<0.002	mg/l	24/08/2022	Y Cov	WAS049
Copper, Total as Cu	<0.009	mg/l	24/08/2022	Y Cov	WAS049
Iron , Total as Fe	0.56	mg/l	24/08/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	24/08/2022	Y Cov	WAS049
Magnesium, Total as Mg	2.9	mg/l	24/08/2022	Y Cov	WAS049
Manganese , Total as Mn	111	ug/l	24/08/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00011	mg/l	24/08/2022	Y Cov	WAS013
Nickel , Total as Ni	3.96	ug/l	24/08/2022	Y Cov	WAS049
Potassium , Total as K	2.13	mg/l	24/08/2022	Y Cov	WAS049
Sodium , Total as Na	12.4	mg/l	24/08/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	24/08/2022	Y Cov	WAS049
pH	7.9	pH units	17/08/2022	Y Cov	WAS039
Conductivity- Electrical 20C	523	uS/cm	17/08/2022	Y Cov	WAS039
Alkalinity as CaCO3	190	mg/l	19/08/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	16/08/2022	Y Cov	WAS067
Chloride as Cl	29.0	mg/l	17/08/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	3.7	mg/l	17/08/2022	N Cov	WAS036
Sulphate as SO4	41.5	mg/l	17/08/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	10.0	mg/l	17/08/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	22/08/2022	Y Cov	WAS001
COD (Total)	19.0	mg/l	24/08/2022	Y Cov	WAS040

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Report Number: **COV/2359757/2022**
Laboratory Number: **21937374**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.3	mg/l	19/08/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	18/08/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	18/08/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	18/08/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	18/08/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	18/08/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	18/08/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	02/09/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	02/09/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0011	mg/l	19/08/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	22/08/2022	Y Cov	WAS076
Naphthalene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Acenaphthylene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Acenaphthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Fluorene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Phenanthrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81

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Report Number: **COV/2359757/2022**
Laboratory Number: **21937374**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Chrysene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(a)pyrene	0.218	ug/l	19/08/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
PAH, Total of 16	0.218	ug/l	19/08/2022	N Cov	GEO81

Analyst Comments for 21937374:

This sample has been analysed for BTEX Waters method GEO56, COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {*/}Raised reporting limit for PAH due to nature of the sample matrix.{*/}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 September 2022**

Title: **Inorganics Chemistry Manager**

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Report Number: **COV/2359757/2022**
Laboratory Number: **21937375**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	24/08/2022	Y Cov	WAS049
Calcium , Total as Ca	79.5	mg/l	24/08/2022	Y Cov	WAS049
Chromium , Total as Cr	<0.002	mg/l	24/08/2022	Y Cov	WAS049
Copper, Total as Cu	0.009	mg/l	24/08/2022	Y Cov	WAS049
Iron , Total as Fe	1.20	mg/l	24/08/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	24/08/2022	Y Cov	WAS049
Magnesium, Total as Mg	8.1	mg/l	24/08/2022	Y Cov	WAS049
Manganese , Total as Mn	406	ug/l	24/08/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00011	mg/l	24/08/2022	Y Cov	WAS013
Nickel , Total as Ni	18.8	ug/l	24/08/2022	Y Cov	WAS049
Potassium , Total as K	2.05	mg/l	24/08/2022	Y Cov	WAS049
Sodium , Total as Na	12.8	mg/l	24/08/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	24/08/2022	Y Cov	WAS049
pH	7.5	pH units	17/08/2022	Y Cov	WAS039
Conductivity- Electrical 20C	490	uS/cm	17/08/2022	Y Cov	WAS039
Alkalinity as CaCO3	190	mg/l	20/08/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	16/08/2022	Y Cov	WAS067
Chloride as Cl	12.7	mg/l	17/08/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	2.9	mg/l	17/08/2022	N Cov	WAS036
Sulphate as SO4	63.7	mg/l	17/08/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	9.5	mg/l	17/08/2022	Y Cov	WAS052
BOD + ATU (5 day)	3	mg/l	22/08/2022	Y Cov	WAS001
COD (Total)	42.0	mg/l	24/08/2022	Y Cov	WAS040

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Report Number: **COV/2359757/2022**
Laboratory Number: **21937375**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.9	mg/l	19/08/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	21/08/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	02/09/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	02/09/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0014	mg/l	17/08/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	19/08/2022	Y Cov	WAS076
Naphthalene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Acenaphthylene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Acenaphthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Fluorene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Phenanthrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81

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Report Number: **COV/2359757/2022**
Laboratory Number: **21937375**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Chrysene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
PAH, Total of 16	<0.200	ug/l	19/08/2022	N Cov	GEO81

Analyst Comments for 21937375:

This sample has been analysed for BTEX Waters method GEO56, COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {*/}Raised reporting limit for PAH due to nature of the sample matrix.{*/}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 September 2022**

Title: **Inorganics Chemistry Manager**

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2359757/2022**
Laboratory Number: **21937376**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	24/08/2022	Y Cov	WAS049
Calcium , Total as Ca	102	mg/l	24/08/2022	Y Cov	WAS049
Chromium , Total as Cr	0.021	mg/l	24/08/2022	Y Cov	WAS049
Copper, Total as Cu	0.036	mg/l	24/08/2022	Y Cov	WAS049
Iron , Total as Fe	3.40	mg/l	24/08/2022	Y Cov	WAS049
Lead , Total as Pb	0.015	mg/l	24/08/2022	Y Cov	WAS049
Magnesium, Total as Mg	3.1	mg/l	24/08/2022	Y Cov	WAS049
Manganese , Total as Mn	688	ug/l	24/08/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00004	mg/l	24/08/2022	Y Cov	WAS013
Nickel , Total as Ni	52.6	ug/l	24/08/2022	Y Cov	WAS049
Potassium , Total as K	2.34	mg/l	24/08/2022	Y Cov	WAS049
Sodium , Total as Na	10.8	mg/l	24/08/2022	Y Cov	WAS049
Zinc, Total as Zn	0.05	mg/l	24/08/2022	Y Cov	WAS049
pH	7.8	pH units	17/08/2022	Y Cov	WAS039
Conductivity- Electrical 20C	524	uS/cm	17/08/2022	Y Cov	WAS039
Alkalinity as CaCO3	205	mg/l	20/08/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	16/08/2022	Y Cov	WAS067
Chloride as Cl	29.3	mg/l	17/08/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	3.7	mg/l	17/08/2022	N Cov	WAS036
Sulphate as SO4	41.6	mg/l	17/08/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	8.8	mg/l	17/08/2022	Y Cov	WAS052
BOD + ATU (5 day)	4	mg/l	22/08/2022	Y Cov	WAS001
COD (Total)	Analyst Com	mg/l	26/08/2022	Y Cov	WAS040

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ANALYSED BY



Report Number: **COV/2359757/2022**
 Laboratory Number: **21937376**
 Sample Source: **Enviroarm Ltd**
 Sample Point Description:
 Sample Description: **BH3**
 Sample Matrix: **Ground Water**
 Sample Date/Time: **15 August 2022**
 Sample Received: **16 August 2022**
 Analysis Complete: **02 September 2022**

Issue **1**
 Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.8	mg/l	19/08/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	21/08/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	21/08/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	02/09/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	02/09/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	02/09/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0034	mg/l	17/08/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	19/08/2022	Y Cov	WAS076
Naphthalene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Acenaphthylene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Acenaphthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Fluorene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Phenanthrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81

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ANALYSED BY



Report Number: **COV/2359757/2022**
Laboratory Number: **21937376**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **15 August 2022**
Sample Received: **16 August 2022**
Analysis Complete: **02 September 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Chrysene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.200	ug/l	19/08/2022	Y Cov	GEO81
PAH, Total of 16	<0.200	ug/l	19/08/2022	N Cov	GEO81

Analyst Comments for 21937376:

This sample has been analysed for BTEX Waters method GEO56 outside recommended stability times. It is therefore possible that the results provided may be compromised. {*/}Raised reporting limit for PAH due to nature of the sample matrix.
Unable to analyse for COD Total due to matrix interference. {*/}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **02 September 2022**

Title: **Inorganics Chemistry Manager**

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Mr Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall WS6 6AE
Staffordshire

12 October 2022

Test Report: COV/2382353/2022

Dear Mr Morris

Analysis of your sample(s) submitted on 04 October 2022 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Laboratories (UK) Limited and we look forward to receiving your next samples.

Yours Sincerely,

Signed:

Name: A. Zunzunegui

Title: Organics Chemistry Manager



1314



EMS675527

OHS 542058



Report Summary

ANALYSED BY

Mr Andy Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE



Date of Issue: **12 October 2022**

Report Number: **COV/2382353/2022**

Issue **1**

This issue replaces
all previous issues

Job Description: Water Analysis

Job Location: Woodcote Quarry

Number of Samples
included in this report **3**

Job Received: **04 October 2022**

Number of Test Results
included in this report **168**

Analysis Commenced: **05 October 2022**

Signed:

A handwritten signature in black ink, appearing to read 'A. Zunzunegui'.

Name: **A. Zunzunegui**

Date: **12 October 2022**

Title: **Organics Chemistry Manager**

ALS Laboratories (UK) Limited was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

This test report is not a statement of conformity to any specification or standard.

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2382353/2022**
Laboratory Number: **22098320**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	10/10/2022	Y Cov	WAS049
Calcium , Total as Ca	101	mg/l	10/10/2022	Y Cov	WAS049
Chromium , Total as Cr	0.027	mg/l	10/10/2022	Y Cov	WAS049
Copper, Total as Cu	0.013	mg/l	10/10/2022	Y Cov	WAS049
Iron , Total as Fe	1.45	mg/l	10/10/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	10/10/2022	Y Cov	WAS049
Magnesium, Total as Mg	2.8	mg/l	10/10/2022	Y Cov	WAS049
Manganese , Total as Mn	158	ug/l	10/10/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00005	mg/l	10/10/2022	Y Cov	WAS013
Nickel , Total as Ni	61.9	ug/l	10/10/2022	Y Cov	WAS049
Potassium , Total as K	1.78	mg/l	10/10/2022	Y Cov	WAS049
Sodium , Total as Na	11.6	mg/l	10/10/2022	Y Cov	WAS049
Zinc, Total as Zn	0.05	mg/l	10/10/2022	Y Cov	WAS049
pH	8.1	pH units	06/10/2022	Y Cov	WAS039
Conductivity- Electrical 20C	497	uS/cm	06/10/2022	Y Cov	WAS039
Alkalinity as CaCO3	198	mg/l	06/10/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	05/10/2022	Y Cov	WAS067
Chloride as Cl	29.9	mg/l	06/10/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	3.9	mg/l	06/10/2022	N Cov	WAS036
Sulphate as SO4	42.0	mg/l	06/10/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	06/10/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	11/10/2022	Y Cov	WAS001
COD (Total)	26.0	mg/l	07/10/2022	Y Cov	WAS040

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098320**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.2	mg/l	06/10/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	10/10/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Toluene	0.15	ug/l	12/10/2022	Y Cov	GEO56
m&p Xylene	0.23	ug/l	12/10/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Total Xylenes	0.23	ug/l	12/10/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0012	mg/l	07/10/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	06/10/2022	Y Cov	WAS076
Naphthalene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Acenaphthylene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Acenaphthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Fluorene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Phenanthrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Anthracene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Fluoranthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Pyrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098320**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Chrysene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
PAH, Total of 16	<0.050	ug/l	07/10/2022	N Cov	GEO81

Analyst Comments for 22098320:

This sample has been analysed for pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day), COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {*/}Raised reporting limit for PAH due to nature of the sample matrix.{*/}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **A. Zunzunegui**

Date: **12 October 2022**

Title: **Organics Chemistry Manager**

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098321**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	0.0008	mg/l	10/10/2022	Y Cov	WAS049
Calcium , Total as Ca	76.6	mg/l	10/10/2022	Y Cov	WAS049
Chromium , Total as Cr	0.016	mg/l	10/10/2022	Y Cov	WAS049
Copper, Total as Cu	0.010	mg/l	10/10/2022	Y Cov	WAS049
Iron , Total as Fe	2.09	mg/l	10/10/2022	Y Cov	WAS049
Lead , Total as Pb	0.008	mg/l	10/10/2022	Y Cov	WAS049
Magnesium, Total as Mg	7.5	mg/l	10/10/2022	Y Cov	WAS049
Manganese , Total as Mn	494	ug/l	10/10/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00024	mg/l	10/10/2022	Y Cov	WAS013
Nickel , Total as Ni	62.2	ug/l	10/10/2022	Y Cov	WAS049
Potassium , Total as K	1.77	mg/l	10/10/2022	Y Cov	WAS049
Sodium , Total as Na	11.6	mg/l	10/10/2022	Y Cov	WAS049
Zinc, Total as Zn	0.03	mg/l	10/10/2022	Y Cov	WAS049
pH	7.8	pH units	08/10/2022	Y Cov	WAS039
Conductivity- Electrical 20C	479	uS/cm	08/10/2022	Y Cov	WAS039
Alkalinity as CaCO3	204	mg/l	06/10/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	05/10/2022	Y Cov	WAS067
Chloride as Cl	12.7	mg/l	06/10/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	2.6	mg/l	06/10/2022	N Cov	WAS036
Sulphate as SO4	62.4	mg/l	06/10/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	06/10/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	11/10/2022	Y Cov	WAS001
COD (Total)	41.0	mg/l	07/10/2022	Y Cov	WAS040

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098321**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.0	mg/l	06/10/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	10/10/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Toluene	0.10	ug/l	12/10/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	12/10/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	12/10/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0013	mg/l	07/10/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.00062	mg/l	06/10/2022	Y Cov	WAS076
Naphthalene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Acenaphthylene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Acenaphthene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Fluorene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Phenanthrene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Anthracene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Fluoranthene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Pyrene	<0.200	ug/l	07/10/2022	Y Cov	GEO81

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098321**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Chrysene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.200	ug/l	07/10/2022	Y Cov	GEO81
PAH, Total of 16	<0.200	ug/l	07/10/2022	N Cov	GEO81

Analyst Comments for 22098321:

This sample has been analysed for pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day), COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {*/}Raised reporting limit for PAH due to nature of the sample matrix.{*/}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **A. Zunzunegui**

Date: **12 October 2022**

Title: **Organics Chemistry Manager**

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098322**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	07/10/2022	Y Cov	WAS049
Calcium , Total as Ca	109	mg/l	07/10/2022	Y Cov	WAS049
Chromium , Total as Cr	0.008	mg/l	10/10/2022	Y Cov	WAS049
Copper, Total as Cu	0.044	mg/l	07/10/2022	Y Cov	WAS049
Iron , Total as Fe	4.54	mg/l	07/10/2022	Y Cov	WAS049
Lead , Total as Pb	0.023	mg/l	07/10/2022	Y Cov	WAS049
Magnesium, Total as Mg	3.4	mg/l	07/10/2022	Y Cov	WAS049
Manganese , Total as Mn	751	ug/l	07/10/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00010	mg/l	10/10/2022	Y Cov	WAS013
Nickel , Total as Ni	88.6	ug/l	07/10/2022	Y Cov	WAS049
Potassium , Total as K	2.45	mg/l	07/10/2022	Y Cov	WAS049
Sodium , Total as Na	11.0	mg/l	07/10/2022	Y Cov	WAS049
Zinc, Total as Zn	0.126	mg/l	07/10/2022	Y Cov	WAS049
pH	7.6	pH units	06/10/2022	Y Cov	WAS039
Conductivity- Electrical 20C	508	uS/cm	06/10/2022	Y Cov	WAS039
Alkalinity as CaCO3	172	mg/l	06/10/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	05/10/2022	Y Cov	WAS067
Chloride as Cl	31.1	mg/l	06/10/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	4.1	mg/l	06/10/2022	N Cov	WAS036
Sulphate as SO4	42.1	mg/l	06/10/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	06/10/2022	Y Cov	WAS052
BOD + ATU (5 day)	<1	mg/l	11/10/2022	Y Cov	WAS001
COD (Total)	19.0	mg/l	07/10/2022	Y Cov	WAS040

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Report Number: **COV/2382353/2022**
Laboratory Number: **22098322**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.7	mg/l	06/10/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	10/10/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	10/10/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Toluene	0.13	ug/l	12/10/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	12/10/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	12/10/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	12/10/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0042	mg/l	07/10/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.0011	mg/l	06/10/2022	Y Cov	WAS076
Naphthalene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Acenaphthylene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Acenaphthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Fluorene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Phenanthrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Anthracene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Fluoranthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Pyrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81

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ANALYSED BY



Report Number: **COV/2382353/2022**
Laboratory Number: **22098322**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **30 September 2022**
Sample Received: **04 October 2022**
Analysis Complete: **12 October 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Chrysene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.050	ug/l	07/10/2022	Y Cov	GEO81
PAH, Total of 16	<0.050	ug/l	07/10/2022	N Cov	GEO81

Analyst Comments for 22098322:

This sample has been analysed for pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day), COD (Total) outside recommended stability times. It is therefore possible that the results provided may be compromised. {(*)}Raised reporting limit for PAH due to nature of the sample matrix.{(*)}

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **A. Zunzunegui**

Date: **12 October 2022**

Title: **Organics Chemistry Manager**

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Mr Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall WS6 6AE
Staffordshire

09 November 2022

Test Report: COV/2388039/2022

Dear Mr Morris

Analysis of your sample(s) submitted on 17 October 2022 is now complete and we have pleasure in enclosing the appropriate test report(s).


An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Laboratories (UK) Limited and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: P. Patel

Title: Inorganics Chemistry Manager



1314



EMS675527

OHS 542058



Report Summary

ANALYSED BY

Mr Andy Morris
Enviroarm Ltd
597 Walsall Road
Great Wyrley
Walsall
Staffordshire
WS6 6AE



Date of Issue: **09 November 2022**

Report Number: **COV/2388039/2022**

Issue **1**

This issue replaces
all previous issues

Job Description: Water Analysis

Job Location: Woodcote Quarry

Number of Samples
included in this report **3**

Job Received: **17 October 2022**

Number of Test Results
included in this report **168**

Analysis Commenced: **19 October 2022**

Signed:

Name: **P. Patel**

Date: **09 November 2022**

Title: **Inorganics Chemistry Manager**

ALS Laboratories (UK) Limited was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

This test report is not a statement of conformity to any specification or standard.

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2388039/2022**
Laboratory Number: **22138644**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	20/10/2022	Y Cov	WAS049
Calcium , Total as Ca	103	mg/l	20/10/2022	Y Cov	WAS049
Chromium , Total as Cr	0.003	mg/l	20/10/2022	Y Cov	WAS049
Copper, Total as Cu	0.010	mg/l	20/10/2022	Y Cov	WAS049
Iron , Total as Fe	0.84	mg/l	20/10/2022	Y Cov	WAS049
Lead , Total as Pb	<0.006	mg/l	20/10/2022	Y Cov	WAS049
Magnesium, Total as Mg	2.8	mg/l	20/10/2022	Y Cov	WAS049
Manganese , Total as Mn	87.1	ug/l	20/10/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00005	mg/l	19/10/2022	Y Cov	WAS013
Nickel , Total as Ni	<3.00	ug/l	20/10/2022	Y Cov	WAS049
Potassium , Total as K	1.71	mg/l	21/10/2022	Y Cov	WAS049
Sodium , Total as Na	11.6	mg/l	21/10/2022	Y Cov	WAS049
Zinc, Total as Zn	<0.018	mg/l	20/10/2022	Y Cov	WAS049
pH	8.2	pH units	20/10/2022	Y Cov	WAS039
Conductivity- Electrical 20C	494	uS/cm	20/10/2022	Y Cov	WAS039
Alkalinity as CaCO3	196	mg/l	19/10/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	19/10/2022	Y Cov	WAS067
Chloride as Cl	30.3	mg/l	19/10/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	4.0	mg/l	19/10/2022	N Cov	WAS036
Sulphate as SO4	41.8	mg/l	19/10/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	9.4	mg/l	19/10/2022	Y Cov	WAS052
BOD + ATU (5 day)	1	mg/l	25/10/2022	Y Cov	WAS001
COD (Total)	<11.0	mg/l	20/10/2022	Y Cov	WAS040

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Report Number: **COV/2388039/2022**
Laboratory Number: **22138644**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	1.8	mg/l	19/10/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	28/10/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	01/11/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	01/11/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0011	mg/l	20/10/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	20/10/2022	Y Cov	WAS076
Naphthalene	0.107	ug/l	21/10/2022	Y Cov	GEO81
Acenaphthylene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Acenaphthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Fluorene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Phenanthrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Pyrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81

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Report Number: **COV/2388039/2022**
Laboratory Number: **22138644**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH1**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **1** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Chrysene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.100	ug/l	25/10/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
PAH, Total of 16	0.107	ug/l	25/10/2022	N Cov	GEO81

Analyst Comments for 22138644:

This sample has been analysed for BTEX Waters method GEO56, PAH Waters method GEO81, pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day) outside recommended stability times. It is therefore possible that the results provided may be compromised. {(*)}Raised reporting limits for PAH due to the nature of the sample matrix.{*/}

This sample was re-analysed for BTEX analysis due to quality failure on the original analysis and sample for repeat was taken with the presence of headspace created from the original analysis. It is therefore possible that the results provided could be compromised.

This issue replaces all previous issues

Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.

Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **09 November 2022**

Title: **Inorganics Chemistry Manager**

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2388039/2022**
Laboratory Number: **22138645**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	0.0007	mg/l	20/10/2022	Y Cov	WAS049
Calcium , Total as Ca	78.8	mg/l	20/10/2022	Y Cov	WAS049
Chromium , Total as Cr	0.018	mg/l	20/10/2022	Y Cov	WAS049
Copper, Total as Cu	0.014	mg/l	20/10/2022	Y Cov	WAS049
Iron , Total as Fe	2.25	mg/l	20/10/2022	Y Cov	WAS049
Lead , Total as Pb	0.008	mg/l	20/10/2022	Y Cov	WAS049
Magnesium, Total as Mg	8.1	mg/l	20/10/2022	Y Cov	WAS049
Manganese , Total as Mn	442	ug/l	20/10/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00006	mg/l	19/10/2022	Y Cov	WAS013
Nickel , Total as Ni	48.6	ug/l	20/10/2022	Y Cov	WAS049
Potassium , Total as K	1.80	mg/l	21/10/2022	Y Cov	WAS049
Sodium , Total as Na	12.0	mg/l	21/10/2022	Y Cov	WAS049
Zinc, Total as Zn	0.05	mg/l	20/10/2022	Y Cov	WAS049
pH	7.6	pH units	24/10/2022	Y Cov	WAS039
Conductivity- Electrical 20C	502	uS/cm	24/10/2022	Y Cov	WAS039
Alkalinity as CaCO3	195	mg/l	19/10/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	19/10/2022	Y Cov	WAS067
Chloride as Cl	14.2	mg/l	19/10/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	2.8	mg/l	19/10/2022	N Cov	WAS036
Sulphate as SO4	65.4	mg/l	19/10/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	9.8	mg/l	19/10/2022	Y Cov	WAS052
BOD + ATU (5 day)	1	mg/l	25/10/2022	Y Cov	WAS001
COD (Total)	50.0	mg/l	20/10/2022	Y Cov	WAS040

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Report Number: **COV/2388039/2022**
Laboratory Number: **22138645**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.5	mg/l	19/10/2022	Y Cov	WAS005
Benzene	<0.50	ug/l	01/11/2022	Y Cov	GEO56
Ethyl Benzene	<0.50	ug/l	01/11/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	28/10/2022	N Cov	GEO35
Trichloroethene	<0.50	ug/l	01/11/2022	Y Cov	GEO56
Toluene	<0.50	ug/l	01/11/2022	Y Cov	GEO56
m&p Xylene	<1.00	ug/l	01/11/2022	Y Cov	GEO56
o-Xylene	<0.50	ug/l	01/11/2022	Y Cov	GEO56
Total Xylenes	<1.00	ug/l	01/11/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0015	mg/l	20/10/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	<0.00060	mg/l	20/10/2022	Y Cov	WAS076
Naphthalene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Acenaphthylene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Acenaphthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Fluorene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Phenanthrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Pyrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81

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Report Number: **COV/2388039/2022**
Laboratory Number: **22138645**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH2**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **2** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Chrysene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.100	ug/l	25/10/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
PAH, Total of 16	<0.100	ug/l	25/10/2022	N Cov	GEO81

Analyst Comments for 22138645:

This sample has been analysed for BTEX Waters method GEO56, PAH Waters method GEO81, pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day) outside recommended stability times. It is therefore possible that the results provided may be compromised. {(*)}Raised reporting limits for PAH due to the nature of the sample matrix.{*/} This sample was re-analysed for BTEX analysis due to quality failure on the original analysis and sample for repeat was taken with the presence of headspace created from the original analysis. It is therefore possible that the results provided could be compromised.

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For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.

I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed:

Name: **P. Patel**

Date: **09 November 2022**

Title: **Inorganics Chemistry Manager**

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Certificate of Analysis

ANALYSED BY



Report Number: **COV/2388039/2022**
Laboratory Number: **22138646**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Cadmium , Total as Cd	<0.0006	mg/l	21/10/2022	Y Cov	WAS049
Calcium , Total as Ca	103	mg/l	21/10/2022	Y Cov	WAS049
Chromium , Total as Cr	0.017	mg/l	21/10/2022	Y Cov	WAS049
Copper, Total as Cu	0.047	mg/l	21/10/2022	Y Cov	WAS049
Iron , Total as Fe	3.90	mg/l	21/10/2022	Y Cov	WAS049
Lead , Total as Pb	0.011	mg/l	21/10/2022	Y Cov	WAS049
Magnesium, Total as Mg	3.2	mg/l	21/10/2022	Y Cov	WAS049
Manganese , Total as Mn	693	ug/l	21/10/2022	Y Cov	WAS049
Mercury, Total as Hg	0.00010	mg/l	19/10/2022	Y Cov	WAS013
Nickel , Total as Ni	35.0	ug/l	21/10/2022	Y Cov	WAS049
Potassium , Total as K	2.05	mg/l	21/10/2022	Y Cov	WAS049
Sodium , Total as Na	10.2	mg/l	21/10/2022	Y Cov	WAS049
Zinc, Total as Zn	0.03	mg/l	21/10/2022	Y Cov	WAS049
pH	7.8	pH units	24/10/2022	Y Cov	WAS039
Conductivity- Electrical 20C	513	uS/cm	24/10/2022	Y Cov	WAS039
Alkalinity as CaCO3	203	mg/l	19/10/2022	Y Cov	WAS025
Ammoniacal Nitrogen as N (LL)	<0.06	mg/l	19/10/2022	Y Cov	WAS067
Chloride as Cl	31.0	mg/l	19/10/2022	N Cov	WAS036
Nitrogen, Total Oxidised as N	4.0	mg/l	19/10/2022	N Cov	WAS036
Sulphate as SO4	43.7	mg/l	19/10/2022	N Cov	WAS036
Dissolved Oxygen, Fixed	10.4	mg/l	19/10/2022	Y Cov	WAS052
BOD + ATU (5 day)	2	mg/l	25/10/2022	Y Cov	WAS001
COD (Total)	91.0	mg/l	20/10/2022	Y Cov	WAS040

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Report Number: **COV/2388039/2022**
Laboratory Number: **22138646**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC (Filtered)	2.2	mg/l	19/10/2022	Y Cov	WAS005
Benzene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
Ethyl Benzene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
EH >C6 - C40	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C6 - C8	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C8 - C10	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C16 - C24	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C24 - C40	<10	ug/l	28/10/2022	N Cov	GEO35
EH >C10 - C16	<10	ug/l	28/10/2022	N Cov	GEO35
Trichloroethene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
Toluene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
m&p Xylene	<0.20	ug/l	01/11/2022	Y Cov	GEO56
o-Xylene	<0.10	ug/l	01/11/2022	Y Cov	GEO56
Total Xylenes	<0.20	ug/l	01/11/2022	N Cov	GEO56
Arsenic, total as As (mg/l)	0.0041	mg/l	20/10/2022	Y Cov	WAS076
Selenium, total as Se (mg/l)	0.00068	mg/l	20/10/2022	Y Cov	WAS076
Naphthalene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Acenaphthylene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Acenaphthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Fluorene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Phenanthrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Pyrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81

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Report Number: **COV/2388039/2022**
Laboratory Number: **22138646**
Sample Source: **Enviroarm Ltd**
Sample Point Description:
Sample Description: **BH3**
Sample Matrix: **Ground Water**
Sample Date/Time: **14 October 2022**
Sample Received: **17 October 2022**
Analysis Complete: **09 November 2022**

Issue **1**
Sample **3** of **3**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Benzo(a)anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Chrysene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(b)fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(k)fluoranthene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(a)pyrene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Indeno(123cd)pyrene	<0.100	ug/l	25/10/2022	Y Cov	GEO81
Dibenzo(ah)anthracene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
Benzo(ghi)perylene	<0.100	ug/l	21/10/2022	Y Cov	GEO81
PAH, Total of 16	<0.100	ug/l	25/10/2022	N Cov	GEO81

Analyst Comments for 22138646:

This sample has been analysed for BTEX Waters method GEO56, PAH Waters method GEO81, pH, Dissolved Oxygen, Fixed, BOD + ATU (5 day) outside recommended stability times. It is therefore possible that the results provided may be compromised. {*}Raised reporting limits for PAH due to the nature of the sample matrix.{*/}

This sample was re-analysed for BTEX analysis due to quality failure on the original analysis and sample for repeat was taken with the presence of headspace created from the original analysis. It is therefore possible that the results provided could be compromised.

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Signed:

Name: **P. Patel**

Date: **09 November 2022**

Title: **Inorganics Chemistry Manager**

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