

ALS Environmental Ltd
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Mr Lloyd
Caerphilly County B.C.
Caerphilly County Borough
Council
Unit B5
Tiryberth Depot
Hengoed CF82 8AU
Caerphilly

07 February 2017

Test Report: COV/1358413/2017

Dear Mr Lloyd

Analysis of your sample(s) submitted on 31 January 2017 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,

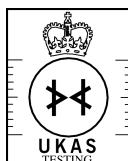
Signed: 

Name: P. Johal

Title: Microbiology Manager



Report Summary



1314
0897
4409



**Mr Rhodri Lloyd
Caerphilly County B.C.
Caerphilly County Borough
Council
Unit B5
Tiryberth Depot
Hengoed
Caerphilly**

Date of Issue: **07 February 2017**

Report Number: **COV/1358413/2017**

Issue **1**

Job Description: Trehir Landfill Site

Job Location: Caerphilly

Number of Samples
included in this report **18**

Job Received: **31 January 2017**

Number of Test Results
included in this report **134**

Analysis Commenced: **01 February 2017**

Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

ALS Environmental Ltd was responsible for sampling. Sampling is not covered by our UKAS accreditation.

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.

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

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



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849796**

Sample **1** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **08**

Sample Description: **08**

Sample Matrix: **Land Leachate**

Sample Date/Time: **31 January 2017 10:10**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	10.0	Deg C	01/02/2017	N Cov	FIELD
pH	7.7	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1080	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	Analyst Com	mg/l	02/02/2017	Y Cov	WAS055
BOD + ATU (5 day)	2	mg/l	07/02/2017	Y Cov	WAS001
COD (Total)	58.0	mg/l	05/02/2017	Y Cov	WAS040
Chloride as Cl, High Level	84.7	mg/l	01/02/2017	Y Cov	WAS036

Analyst Comments for 15849796:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849797**

Sample **2** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **MHL28**

Sample Description: **MHL28**

Sample Matrix: **Land Leachate**

Sample Date/Time: **31 January 2017 10:45**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.2	Deg C	01/02/2017	N Cov	FIELD
pH	7.7	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1380	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	Analyst Com	mg/l	02/02/2017	Y Cov	WAS055
BOD + ATU (5 day)	4	mg/l	07/02/2017	Y Cov	WAS001
COD (Total)	70.0	mg/l	05/02/2017	Y Cov	WAS040
Chloride as Cl, High Level	82.7	mg/l	01/02/2017	Y Cov	WAS036

Analyst Comments for 15849797:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG). For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849798**

Sample **3** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **N2**

Sample Description: **N2**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 09:50**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	10.8	Deg C	01/02/2017	N	Cov	FIELD
pH	6.5	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	154	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	8.2	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	6.4	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	39.0	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	4.60	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849798:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849799**

Sample **4** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **N5**

Sample Description: **N5**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 12:00**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	11.3	Deg C	01/02/2017	N	Cov	FIELD
pH	7.0	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	1310	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	2.21	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	214	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	0.5	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	212	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	5.57	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849799:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849800**

Sample **5** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **N6**

Sample Description: **N6**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 11:40**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	11.1	Deg C	01/02/2017	N	Cov	FIELD
pH	6.8	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	918	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	20.0	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	59.0	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	104	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	0.0	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849800:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849801**

Sample **6** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **N8**

Sample Description: **N8**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 12:35**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	11.1	Deg C	01/02/2017	N	Cov	FIELD
pH	7.2	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	816	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	0.75	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	195	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	3.8	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	29.0	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	3.0	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849801:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849802**

Sample **7** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **NBH1**

Sample Description: **NBH1**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 11:25**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	14.0	Deg C	01/02/2017	N	Cov	FIELD
pH	7.1	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	1470	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	23.6	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	110	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	6780	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	3.75	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849802:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

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

Signed:

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Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849803**

Sample **8** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **NBH3**

Sample Description: **NBH3**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:50**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	8.2	Deg C	01/02/2017	N	Cov	FIELD
pH	6.7	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	886	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	7.32	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	28.0	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	2.6	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	225	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	5.33	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849803:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849804**

Sample **9** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **NBH4**

Sample Description: **NBH4**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:40**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	8.7	Deg C	01/02/2017	N	Cov	FIELD
pH	6.4	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	542	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	13.6	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	3.7	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	84.0	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	17.6	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849804:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849805**

Sample **10** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **NBH5**

Sample Description: **NBH5**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:15**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation		Method
Field Temperature	10.8	Deg C	01/02/2017	N	Cov	FIELD
pH	6.5	pH units	02/02/2017	Y	Cov	WAS039
Conductivity- Electrical 20C	535	uS/cm	02/02/2017	Y	Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	03/02/2017	N	Cov	WAS036
Chloride as Cl	16.4	mg/l	03/02/2017	N	Cov	WAS036
Dissolved Oxygen, Fixed	2.6	mg/l	02/02/2017	Y	Cov	WAS052
COD (Total)	26.0	mg/l	05/02/2017	Y	Cov	WAS040
Water Level to top of Casing	5.4	m	01/02/2017	N	Cov	IN SITU M

Analyst Comments for 15849805:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).

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Title: **Microbiology Manager**

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849806**

Sample **11** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **W1**

Sample Description: **W1**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 09:35**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	9.2	Deg C	01/02/2017	N Cov	FIELD
pH	7.3	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	258	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	0.51	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	23.3	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	9.0	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	17.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849806:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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Signed:

Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

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Certificate of Analysis



Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849807**

Sample **12** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **W2**

Sample Description: **W2**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 09:30**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	8.9	Deg C	01/02/2017	N Cov	FIELD
pH	7.4	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	386	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	1.18	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	32.6	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	9.0	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	14.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849807:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

Signed:

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849808**

Sample **13** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **W3**

Sample Description: **W3**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 09:25**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	8.9	Deg C	01/02/2017	N Cov	FIELD
pH	7.8	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	300	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	26.4	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	9.3	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	19.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849808:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849809**

Sample **14** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **W5**

Sample Description: **W5**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:25**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	9.3	Deg C	02/02/2017	N Cov	FIELD
pH	7.2	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	131	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	16.2	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	9.5	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	15.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849809:

No field temp provided.

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849810**

Sample **15** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **Groundwater Sump**

Sample Description: **SUMP**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:40**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	9.5	Deg C	01/02/2017	N Cov	FIELD
pH	7.0	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	911	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	3.23	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	87.9	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	6.6	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	159	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849810:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

Signed:

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849811**

Sample **16** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **Land Drain 1**

Sample Description: **LAND DRAIN 1a**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:30**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	10.6	Deg C	01/02/2017	N Cov	FIELD
pH	7.6	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1220	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	32.5	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	83.0	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	6.2	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	53.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849811:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849812**

Sample **17** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **Land Drain 1b**

Sample Description: **LAND DRAIN 1b**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:25**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	8.5	Deg C	01/02/2017	N Cov	FIELD
pH	7.3	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	898	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	10.5	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	79.7	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	6.6	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	30.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849812:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

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Report Number: **COV/1358413/2017**

Issue **1**

Laboratory Number: **15849813**

Sample **18** of **18**

Sample Source: **Caerphilly County B.C.**

Sample Point Description: **Land Drain 2**

Sample Description: **LAND DRAIN 2**

Sample Matrix: **Ground Water**

Sample Date/Time: **31 January 2017 10:20**

Sample Received: **31 January 2017**

Analysis Complete: **07 February 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	7.9	Deg C	01/02/2017	N Cov	FIELD
pH	7.7	pH units	02/02/2017	Y Cov	WAS039
Conductivity- Electrical 20C	753	uS/cm	02/02/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	03/02/2017	N Cov	WAS036
Chloride as Cl	74.8	mg/l	03/02/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	9.9	mg/l	02/02/2017	Y Cov	WAS052
COD (Total)	18.0	mg/l	05/02/2017	Y Cov	WAS040

Analyst Comments for 15849813:

No Analyst Comment

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

Analysed at: Cov = Coventry(CV4 9GU), Che = Chester(CH4 9EP), Ott = Otterbourne(SO21 2SW), S = Subcontracted, Trb = Subcontracted to Trowbridge(BA14 0XD), Wak = Wakefield(WF5 9TG).
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. The LOD for the Legionella analysis will increase where the volume analysed is <1000g (1g is approximately equivalent to 1ml for sample volume analysed).

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

Signed:

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ANALYST COMMENTS FOR REPORT


COV/1358413/2017

Issue 1

Date of Issue: 07 February 2017

Sample No	Analysis Comments
15849796	
15849797	
15849798	
15849799	
15849800	
15849801	
15849802	
15849803	
15849804	
15849805	
15849806	
15849807	
15849808	
15849809	No field temp provided.
15849810	
15849811	
15849812	
15849813	

Signed:




Name: **P. Johal**

Date: **07 February 2017**

Title: **Microbiology Manager**

DETERMINAND COMMENTS FOR REPORT COV/1358413/2017
ISSUE 1
Date of Issue : 07 February 2017

Sample No	Description	Determinand	Comments
15849796	08	Ammoniacal Nitrogen as N	{/*}Ammonia analysed by colorimetric method{*/}
15849797	MHL28	Ammoniacal Nitrogen as N	{/*}Ammonia analysed by colorimetric method{*/}

Signed: 	Name: P. Johal	Date: 07 February 2017
	Title: Microbiology Manager	