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

08 June 2017

Test Report: COV/1392516/2017

Dear Mr Lloyd

Analysis of your sample(s) submitted on 24 May 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,

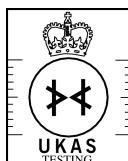
Signed: 

Name: A. Horobin

Title: Organic Operations 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: **08 June 2017**

Report Number: **COV/1392516/2017**

Issue **1**

This issue replaces
all previous issues

Job Description: Trehir Landfill Site

Job Location: Caerphilly

Number of Samples
included in this report **17**

Job Received: **24 May 2017**

Number of Test Results
included in this report **126**

Analysis Commenced: **24 May 2017**

Signed:

A I Horobin

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

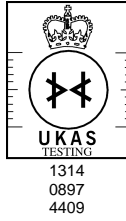
ALS Environmental Ltd was responsible for sampling.

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/1392516/2017**

Issue **1**

Laboratory Number: **16105236**

Sample **1** of **17**

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

Sample Point Description: **08**

Sample Description: **08**

Sample Matrix: **Land Leachate**

Sample Date/Time: **23 May 2017 10:05**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	12.3	Deg C	24/05/2017	N Cov	FIELD
pH	7.5	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1080	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	13.5	mg/l	26/05/2017	Y Cov	WAS036
BOD + ATU (5 day)	5	mg/l	30/05/2017	Y Cov	WAS001
COD (Total)	41.0	mg/l	26/05/2017	Y Cov	WAS040
Chloride as Cl, High Level	325	mg/l	24/05/2017	Y Cov	WAS036

Analyst Comments for 16105236:

{/*}Ammonia analysed by colorimetric method{*/}

This issue replaces all previous issues

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).

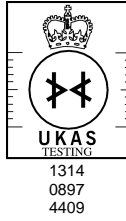
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105237**

Sample **2** of **17**

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

Sample Point Description: **MHL28**

Sample Description: **MHL28**

Sample Matrix: **Land Leachate**

Sample Date/Time: **23 May 2017 10:45**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	12.8	Deg C	24/05/2017	N Cov	FIELD
pH	8.0	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	3410	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	183	mg/l	26/05/2017	Y Cov	WAS055
BOD + ATU (5 day)	14	mg/l	30/05/2017	Y Cov	WAS001
COD (Total)	243	mg/l	26/05/2017	Y Cov	WAS040
Chloride as Cl, High Level	12.2	mg/l	24/05/2017	Y Cov	WAS036

Analyst Comments for 16105237:

{/*}Ammonia analysed by colorimetric method{*/}

This issue replaces all previous issues

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).

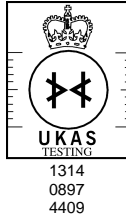
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105238**

Sample **3** of **17**

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

Sample Point Description: **N2**

Sample Description: **N2**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 10:15**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	12.1	Deg C	24/05/2017	N Cov	FIELD
pH	6.7	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	195	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	14.8	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	19.0	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	10.71	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105238:

No Analyst Comment

This issue replaces all previous issues

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).

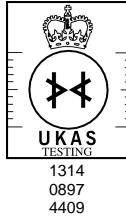
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105239**

Sample **4** of **17**

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

Sample Point Description: **N5**

Sample Description: **N5**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 12:40**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.9	Deg C	24/05/2017	N Cov	FIELD
pH	7.0	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1240	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	2.33	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	206	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	318	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	7.77	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105239:

No Analyst Comment

This issue replaces all previous issues

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).

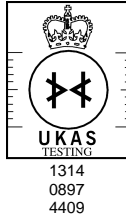
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105240**

Sample **5** of **17**

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

Sample Point Description: **N6**

Sample Description: **N6**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 12:30**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.5	Deg C	24/05/2017	N Cov	FIELD
pH	6.8	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	967	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	22.6	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	62.6	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	50.0	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	1.30	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105240:

No Analyst Comment

This issue replaces all previous issues

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).

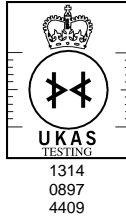
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105241**

Sample **6** of **17**

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

Sample Point Description: **N8**

Sample Description: **N8**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 12:57**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.7	Deg C	24/05/2017	N Cov	FIELD
pH	7.2	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	805	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	193	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	49.0	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	3.17	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105241:

No Analyst Comment

This issue replaces all previous issues

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).

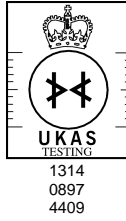
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105242**

Sample **7** of **17**

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

Sample Point Description: **NBH1**

Sample Description: **NBH1**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 11:50**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	12.7	Deg C	24/05/2017	N Cov	FIELD
pH	7.1	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	2300	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	72.6	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	249	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	10400	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	3.27	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105242:

No Analyst Comment

This issue replaces all previous issues

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).

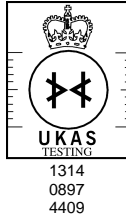
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105243**

Sample **8** of **17**

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

Sample Point Description: **NBH3**

Sample Description: **NBH3**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 11:10**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	14.2	Deg C	24/05/2017	N Cov	FIELD
pH	6.7	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1290	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	24.9	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	59.9	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	64.0	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	7.20	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105243:

No Analyst Comment

This issue replaces all previous issues

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).

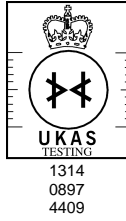
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105244**

Sample **9** of **17**

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

Sample Point Description: **NBH5**

Sample Description: **NBH5**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 10:30**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.1	Deg C	24/05/2017	N Cov	FIELD
pH	6.4	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	496	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	18.8	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	30.0	mg/l	26/05/2017	Y Cov	WAS040
Water Level to top of Casing	7.10	m	25/05/2017	N Cov	COM05

Analyst Comments for 16105244:

No Analyst Comment

This issue replaces all previous issues

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).

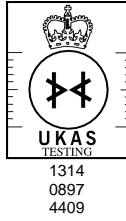
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105245**

Sample **10** of **17**

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

Sample Point Description: **W1**

Sample Description: **W1**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 09:35**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.2	Deg C	24/05/2017	N Cov	FIELD
pH	8.1	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	475	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	19.1	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	Analyst Com	mg/l	05/06/2017	Y Cov	WAS052
COD (Total)	<11.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105245:

{/*}Fixed Dissolved Oxygen result be provided as an indicative results of >14.5mg/l.{/*}

This issue replaces all previous issues

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).

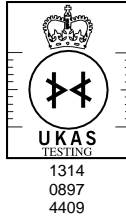
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105246**

Sample **11** of **17**

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

Sample Point Description: **W2**

Sample Description: **W2**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 09:40**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.2	Deg C	24/05/2017	N Cov	FIELD
pH	8.1	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	474	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	19.1	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	8.7	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	<11.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105246:

No Analyst Comment

This issue replaces all previous issues

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).

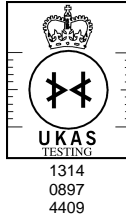
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105247**

Sample **12** of **17**

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

Sample Point Description: **W3**

Sample Description: **W3**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 09:45**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.2	Deg C	24/05/2017	N Cov	FIELD
pH	8.1	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	475	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	19.6	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	8.5	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	<11.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105247:

No Analyst Comment

This issue replaces all previous issues

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).

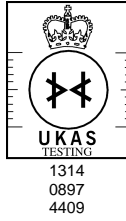
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105248**

Sample **13** of **17**

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

Sample Point Description: **W5**

Sample Description: **W5**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 10:50**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	12.4	Deg C	24/05/2017	N Cov	FIELD
pH	7.7	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	127	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	14.9	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	6.7	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	<11.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105248:

No Analyst Comment

This issue replaces all previous issues

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).

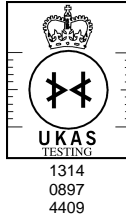
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105249**

Sample **14** of **17**

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

Sample Point Description: **Groundwater Sump**

Sample Description: **Sump**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 10:30**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.1	Deg C	24/05/2017	N Cov	FIELD
pH	7.0	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1440	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	16.0	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	189	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	2.1	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	815	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105249:

No Analyst Comment

This issue replaces all previous issues

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).

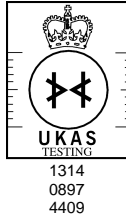
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105250**

Sample **15** of **17**

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

Sample Point Description: **Land Drain 1**

Sample Description: **Land Drain 1a**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 09:50**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.7	Deg C	24/05/2017	N Cov	FIELD
pH	7.3	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	1140	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	23.5	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	124	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	6.4	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	41.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105250:

No Analyst Comment

This issue replaces all previous issues

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).

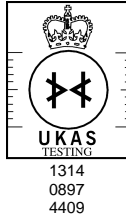
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105251**

Sample **16** of **17**

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

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

Sample Description: **Land Drain 1b**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 09:55**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.8	Deg C	24/05/2017	N Cov	FIELD
pH	7.2	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	666	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	7.16	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	61.6	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	6.7	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	26.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105251:

No Analyst Comment

This issue replaces all previous issues

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).

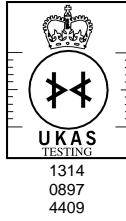
Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**

Certificate of Analysis



Report Number: **COV/1392516/2017**

Issue **1**

Laboratory Number: **16105252**

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

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

Sample Point Description: **Land Drain 2**

Sample Description: **Land Drain 2**

Sample Matrix: **Ground Water**

Sample Date/Time: **23 May 2017 10:15**

Sample Received: **24 May 2017**

Analysis Complete: **08 June 2017**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.9	Deg C	25/05/2017	N Cov	FIELD
pH	8.1	pH units	25/05/2017	Y Cov	WAS039
Conductivity- Electrical 20C	921	uS/cm	25/05/2017	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	25/05/2017	N Cov	WAS036
Chloride as Cl	97.1	mg/l	25/05/2017	N Cov	WAS036
Dissolved Oxygen, Fixed	9.4	mg/l	25/05/2017	Y Cov	WAS052
COD (Total)	53.0	mg/l	26/05/2017	Y Cov	WAS040

Analyst Comments for 16105252:

No Analyst Comment

This issue replaces all previous issues

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).

Signed: *A I Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**



ANALYST COMMENTS FOR REPORT

COV/1392516/2017

Issue 1

Date of Issue: 08 June 2017

Sample No	Analysis Comments
16105236	{*}Ammonia analysed by colorimetric method{*/}
16105237	{*}Ammonia analysed by colorimetric method{*/}
16105238	
16105239	
16105240	
16105241	
16105242	
16105243	
16105244	
16105245	{*}Fixed Dissolved Oxygen result be provided as an indicative results of >14.5mg/l.{*/}
16105246	
16105247	
16105248	
16105249	
16105250	
16105251	
16105252	

Signed: *A. Horobin*

Name: **A. Horobin**

Date: **08 June 2017**

Title: **Organic Operations Manager**



DETERMINAND COMMENTS FOR REPORT COV/1392516/2017

ISSUE 1

Date of Issue : 08 June 2017

Sample No	Description	Determinand	Comments

Signed: <i>A. Horobin</i>	Name: A. Horobin	Date: 08 June 2017
	Title: Organic Operations Manager	