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

09 July 2018

**Test Report: COV/1569533/2018**

Dear Mr Lloyd

Analysis of your sample(s) submitted on 25 June 2018 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,

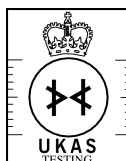
Signed: 

Name: R. Stocks

Title: Inorganic Team Leader



# 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: **09 July 2018**

Report Number: **COV/1569533/2018**

Issue **1**

This issue replaces  
all previous issues

**Job Description:** Trehir Landfill Site

**Job Location:** Caerphilly

Number of Samples  
included in this report **14**

Job Received: **25 June 2018**

Number of Test Results  
included in this report **104**

Analysis Commenced: **25 June 2018**

Signed: 

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

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/1569533/2018**

Issue **1**

Laboratory Number: **17241640**

Sample **1** of **14**

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

Sample Point Description: **03**

Sample Description: **03**

Sample Matrix: **Land Leachate**

Sample Date/Time: **25 June 2018 12:20**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	17.8	Deg C	25/06/2018	N Cov	FIELD
pH	7.7	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	4340	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	213	mg/l	05/07/2018	Y Cov	WAS055
BOD + ATU (5 day)	27	mg/l	01/07/2018	Y Cov	WAS001
COD (Total)	388	mg/l	30/06/2018	Y Cov	WAS040
Chloride as Cl, High Level	423	mg/l	26/06/2018	Y Cov	WAS036

## Analyst Comments for 17241640:

This sample has been analysed for Ammoniacal Nitrogen as N outside recommended stability times. It is therefore possible that the results provided may be compromised. {\*/}Ammonia analysed by colorimetric analysis.{\*/}

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241641**

Sample **2** of **14**

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

Sample Point Description: **08**

Sample Description: **08**

Sample Matrix: **Land Leachate**

Sample Date/Time: **25 June 2018 09:08**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.9	Deg C	25/06/2018	N Cov	FIELD
pH	7.9	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	1410	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	31.9	mg/l	05/07/2018	Y Cov	WAS036
BOD + ATU (5 day)	4	mg/l	01/07/2018	Y Cov	WAS001
COD (Total)	76.0	mg/l	30/06/2018	Y Cov	WAS040
Chloride as Cl, High Level	150	mg/l	26/06/2018	Y Cov	WAS036

## Analyst Comments for 17241641:

This sample has been analysed for Ammoniacal Nitrogen as N outside recommended stability times. It is therefore possible that the results provided may be compromised. {\*/}Ammonia analysed by colorimetric analysis.{\*/}

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241642**

Sample **3** of **14**

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

Sample Point Description: **MHL28**

Sample Description: **ML28**

Sample Matrix: **Land Leachate**

Sample Date/Time: **25 June 2018 09:25**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	16.4	Deg C	25/06/2018	N Cov	FIELD
pH	7.8	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	3960	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	221	mg/l	26/06/2018	Y Cov	WAS055
BOD + ATU (5 day)	13	mg/l	01/07/2018	Y Cov	WAS001
COD (Total)	288	mg/l	30/06/2018	Y Cov	WAS040
Chloride as Cl, High Level	379	mg/l	26/06/2018	Y Cov	WAS036

## Analyst Comments for 17241642:

{/\*}Ammonia analysed by colorimetric analysis{\*/}

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241643**

Sample **4** of **14**

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

Sample Point Description: **N2**

Sample Description: **N2**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 14:20**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	11.2	Deg C	25/06/2018	N Cov	FIELD
pH	6.9	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	187	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	6.8	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	2.5	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	12.0	mg/l	30/06/2018	Y Cov	WAS040
Water Level to top of Casing	11.25	m	25/06/2018	N Cov	COM05

Analyst Comments for 17241643:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241644**

Sample **5** of **14**

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

Sample Point Description: **N5**

Sample Description: **N5**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 11:32**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	14.5	Deg C	25/06/2018	N Cov	FIELD
pH	7.2	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	1250	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	2.09	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	179	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	1.1	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	102	mg/l	30/06/2018	Y Cov	WAS040
Water Level to top of Casing	10.8	m	25/06/2018	N Cov	COM05

Analyst Comments for 17241644:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

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Page 6 of 17

# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241645**

Sample **6** of **14**

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

Sample Point Description: **N8**

Sample Description: **N8**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 09:25**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	12.5	Deg C	25/06/2018	N Cov	FIELD
pH	7.2	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	879	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	200	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	1.1	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	38.0	mg/l	29/06/2018	Y Cov	WAS040
Water Level to top of Casing	3.30	m	25/06/2018	N Cov	COM05

Analyst Comments for 17241645:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241646**

Sample **7** of **14**

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

Sample Point Description: **NBH1**

Sample Description: **NBH1**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 10:00**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	18.4	Deg C	25/06/2018	N Cov	FIELD
pH	7.3	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	2090	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	40.0	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	297	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	2.3	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	197	mg/l	30/06/2018	Y Cov	WAS040
Water Level to top of Casing	4.54	m	25/06/2018	N Cov	COM05

Analyst Comments for 17241646:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241647**

Sample **8** of **14**

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

Sample Point Description: **NBH2**

Sample Description: **NHB2**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 11:49**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	15.5	Deg C	25/06/2018	N Cov	FIELD
pH	7.1	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	3360	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	165	mg/l	26/06/2018	Y Cov	WAS055
Chloride as Cl	288	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	<0.5	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	180	mg/l	30/06/2018	Y Cov	WAS040
Water Level to top of Casing	3.68	m	25/06/2018	N Cov	COM05

## Analyst Comments for 17241647:

{/\*}Ammonia analysed by colorimetric analysis{\*/}

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241648**

Sample **9** of **14**

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

Sample Point Description: **NBH3**

Sample Description: **NBH3**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 12:40**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	16.6	Deg C	25/06/2018	N Cov	FIELD
pH	7.0	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	1790	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	47.5	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	77.6	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	2.0	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	120	mg/l	30/06/2018	Y Cov	WAS040
Water Level to top of Casing	7.64	m	25/06/2018	N Cov	COM05

Analyst Comments for 17241648:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

Torrington Avenue, Coventry, CV4 9GU  
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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241649**

Sample **10** of **14**

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

Sample Point Description: **W1**

Sample Description: **W1**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 08:15**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.9	Deg C	25/06/2018	N Cov	FIELD
pH	8.2	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	589	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	18.4	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	9.0	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	<11.0	mg/l	29/06/2018	Y Cov	WAS040

Analyst Comments for 17241649:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241650**

Sample **11** of **14**

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

Sample Point Description: **W2**

Sample Description: **W2**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 08:11**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.9	Deg C	25/06/2018	N Cov	FIELD
pH	8.2	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	597	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	18.6	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	9.7	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	<11.0	mg/l	30/06/2018	Y Cov	WAS040

Analyst Comments for 17241650:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241651**

Sample **12** of **14**

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

Sample Point Description: **W3**

Sample Description: **W3**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 08:06**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.9	Deg C	25/06/2018	N Cov	FIELD
pH	8.2	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	605	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	<0.41	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	18.6	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	9.3	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	<11.0	mg/l	30/06/2018	Y Cov	WAS040

Analyst Comments for 17241651:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

**ALS Environmental Ltd**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241652**

Sample **13** of **14**

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

Sample Point Description: **Land Drain 1**

Sample Description: **Land Drain 1a**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 08:45**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	14.2	Deg C	25/06/2018	N Cov	FIELD
pH	7.6	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	2620	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	95.5	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	285	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	2.7	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	154	mg/l	30/06/2018	Y Cov	WAS040

Analyst Comments for 17241652:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

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# Certificate of Analysis



Report Number: **COV/1569533/2018**

Issue **1**

Laboratory Number: **17241653**

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

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

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

Sample Description: **Land Drain 1b**

Sample Matrix: **Ground Water**

Sample Date/Time: **25 June 2018 08:47**

Sample Received: **25 June 2018**

Analysis Complete: **09 July 2018**

Test Description	Result	Units	Analysis Date	Accreditation	Method
Field Temperature	13.2	Deg C	25/06/2018	N Cov	FIELD
pH	7.4	pH units	26/06/2018	Y Cov	WAS039
Conductivity- Electrical 20C	678	uS/cm	26/06/2018	Y Cov	WAS039
Ammoniacal Nitrogen as N	5.81	mg/l	26/06/2018	N Cov	WAS036
Chloride as Cl	66.4	mg/l	26/06/2018	N Cov	WAS036
Dissolved Oxygen, Fixed	4.9	mg/l	28/06/2018	Y Cov	WAS052
COD (Total)	34.0	mg/l	30/06/2018	Y Cov	WAS040

Analyst Comments for 17241653:

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), CTD = Coatbridge(ML5 4FR), COV = Coventry(CV4 9GU), 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.

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

Signed:

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

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# ANALYST COMMENTS FOR REPORT COV/1569533/2018

**Issue 1**

This issue replaces all previous issues

Date of Issue: **09 July 2018**

Sample No	Analysis Comments
17241640	This sample has been analysed for Ammoniacal Nitrogen as N outside recommended stability times. It is therefore possible that the results provided may be compromised. {/ *}Ammonia analysed by colorimetric analysis.{*/ }
17241641	This sample has been analysed for Ammoniacal Nitrogen as N outside recommended stability times. It is therefore possible that the results provided may be compromised. {/ *}Ammonia analysed by colorimetric analysis.{*/ }
17241642	{/ *}Ammonia analysed by colorimetric analysis{*/ }
17241643	
17241644	
17241645	
17241646	
17241647	{/ *}Ammonia analysed by colorimetric analysis{*/ }
17241648	
17241649	
17241650	
17241651	
17241652	
17241653	

Signed: 

Name: **R. Stocks**

Date: **09 July 2018**

Title: **Inorganic Team Leader**

## DETERMINAND COMMENTS FOR REPORT COV/1569533/2018

Date of Issue: 09 July 2018

## ISSUE 1

This issue replaces  
all previous issues

Sample No	Description	Determinand	Comments

Signed:



Name: R. Stocks

Date: 09 July 2018

Title: Inorganic Team Leader