



Environmental Forensics Report of Analysis
Project 20230213

Report #: 1738
Date Issued: 24-Jul-2023
Page 1 of 14

Client Project Reference: Menindee Fish Kill - 37 (IMT 14 Jun

Customer: Department of Planning & Environment

Attention: [REDACTED]

Report Date: 24 July 2023

Project Received: 16 June 2023

EF Project Contact: [REDACTED]
[REDACTED]
[REDACTED]



The following samples were analysed:

<i>Sample ID</i>	<i>Client ID</i>	<i>Sample Type</i>	<i>Client Sampled Date/Time</i>
235183	E8-1	Liquid	14/06/2023 9:31AM
235184	E9-1	Liquid	14/06/2023 10:19AM
235185	E10-1	Liquid	14/06/2023 11:25AM
235186	B4-1	Liquid	14/06/2023 1:42PM
235187	E6-1	Liquid	14/06/2023 3:00PM
235188	E6.5-1	Liquid	14/06/2023 4:00PM
235189	E7-1	Liquid	14/06/2023 4:32PM
235190	E8-2	Liquid	14/06/2023 9:32AM
235191	E9-2	Liquid	14/06/2023 10:20AM
235192	E10-2	Liquid	14/06/2023 11:28AM
235193	B4-2	Liquid	14/06/2023 1:42PM
235194	E6-2	Liquid	14/06/2023 3:00PM
235195	E6.5-2	Liquid	14/06/2023 4:00PM
235196	E7-2	Liquid	14/06/2023 4:32PM
235197	E8-3	Liquid	14/06/2023 9:34AM
235198	E9-3	Liquid	14/06/2023 10:18AM
235199	E10-3	Liquid	14/06/2023 11:27AM
235200	B4-3	Liquid	14/06/2023 1:42PM
235201	E6-3	Liquid	14/06/2023 3:00PM
235202	E6.5-3	Liquid	14/06/2023 4:00PM
235203	E7-3	Liquid	14/06/2023 4:32PM
235204	E8-4	Liquid	14/06/2023 9:35AM
235205	E9-4	Liquid	14/06/2023 10:18AM
235206	E10-4	Liquid	14/06/2023 11:26AM
235207	B4-4	Liquid	14/06/2023 1:42PM
235208	E6-4	Liquid	14/06/2023 3:00PM
235209	E6.5-4	Liquid	14/06/2023 4:00PM
235210	E7-4	Liquid	14/06/2023 4:32PM
235211	E8-5	Liquid	14/06/2023 9:37AM

Tests not covered by NATA accreditation 3040 are denoted with *

Codes: SN = Sample Note

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RC = Project Comment



235212	E9-5	Liquid	14/06/2023	10:16AM
235213	E10-5	Liquid	14/06/2023	11:28AM
235214	B4-5	Liquid	14/06/2023	1:42PM
235215	E6-5	Liquid	14/06/2023	3:00PM
235216	E6.5-5	Liquid	14/06/2023	4:00PM
235217	E7-5	Liquid	14/06/2023	4:32PM
235218	E8-6	Liquid	14/06/2023	9:38AM
235219	E9-6	Liquid	14/06/2023	10:17AM
235220	E10-6	Liquid	14/06/2023	11:28AM
235221	B4-6	Liquid	14/06/2023	1:42PM
235222	E6-6	Liquid	14/06/2023	3:00PM
235223	E6.5-6	Liquid	14/06/2023	4:00PM
235224	E7-6	Liquid	14/06/2023	4:32PM
235285	E8-NUTS-Unfiltered	Liquid	14/06/2023	9:35AM
235286	E9-NUTS-Unfiltered	Liquid	14/06/2023	10:45AM
235287	E10-NUTS-Unfiltered	Liquid	14/06/2023	12:00PM
235288	B4-NUTS-Unfiltered	Liquid	14/06/2023	1:45PM
235289	E6-NUTS-Unfiltered	Liquid	14/06/2023	3:00PM
235290	E6.5-NUTS-Unfiltered	Liquid	14/06/2023	4:00PM
235291	E7-NUTS-Unfiltered	Liquid	14/06/2023	4:30PM
235292	E8-NUTS-Filtered 1	Liquid	14/06/2023	9:35AM
235293	E9-NUTS-Filtered 1	Liquid	14/06/2023	10:45AM
235294	E10-NUTS-Filtered 1	Liquid	14/06/2023	12:00PM
235295	B4-NUTS-Filtered 1	Liquid	14/06/2023	1:45PM
235296	E6-NUTS-Filtered 1	Liquid	14/06/2023	3:00PM
235297	E6.5-NUTS-Filtered 1	Liquid	14/06/2023	4:00PM
235298	E7-NUTS-Filtered 1	Liquid	14/06/2023	4:30PM
235299	E8-NUTS-Filtered 2	Liquid	14/06/2023	9:35AM
235300	E9-NUTS-Filtered 2	Liquid	14/06/2023	10:45AM
235301	E10-NUTS-Filtered 2	Liquid	14/06/2023	12:00PM
235302	B4-NUTS-Filtered 2	Liquid	14/06/2023	1:45PM

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235303	E6-NUTS-Filtered 2	Liquid	14/06/2023	3:00PM
235304	E6.5-NUTS-Filtered 2	Liquid	14/06/2023	4:00PM
235305	E7-NUTS-Filtered 2	Liquid	14/06/2023	4:30PM

Report Notes

- This document has been authorised by the person whose name appears in this report.
- This report shall not be reproduced except in full. Samples analysed as received from the client.
- Results reported as 'less than' (<) indicates a result below the practical quantitation limit for the sample matrix and method used.

Project Comments

· Samples 235285 to 235305 were sent to ALS Environmental Laboratory (NATA Accreditation no: 825) for the analysis of Nutrients: EK055G - Ammonia as N by Discrete Analyser, EK059G - Nitrite plus Nitrate as N (NOx) by Discrete Analyser, EK061G - Total Kjeldahl Nitrogen By Discrete Analyser, EK062G - Total Nitrogen as N (TKN + NOx) by Discrete Analyser, EK067G - Total Phosphorus as P by Discrete Analyser, EK071G - Reactive Phosphorus as P by discrete analyser. This report summarises data from the attached external report: ES2320462, dated 27-Jun-2023.

· The samples 235183, 235184, 235185, 235186, 235187, 235188 and 235189 were analysed outside the method holding time for Total Suspended Solids.

· Samples 235204 to 235210 were sent to ALS Environmental Laboratory (NATA Accreditation no: 825) for the analysis of EP202A: Phenoxyacetic Acid Herbicides by LCMS, EP204: Glyphosate and AMPA. This report summarises data from the attached external report: ES2320247, dated 26-Jun-2023.

· Samples 235197 to 235203, were sent to Sydney Water Laboratory Services (NATA Accreditation no: 63 and 610) for the analysis of Algal Toxins. Please see the attached Analytical Report No: 287134, dated 30/06/2023, which gives Algal Toxins analysis results and the Blue-Green Algal ID and Enumeration summary results.

· Samples 235218 to 235224 were sent to Sydney Water Laboratory Services (NATA Accreditation no: 63 and 610) for the analysis of Blue-Green Algal ID and Enumeration. Please see detailed results in the attached Phytoplankton Analysis Report no: 287134, dated 30/06/2023.



Analysis Results - External Methods*

Area - EXTERNAL

Analyte	Sample ID	Start Date	Client ID	235197	235198	235199	235200	235201	235202	235203	235218	235219	235220	235221	235222
				20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	28/06/2023	28/06/2023	28/06/2023	28/06/2023
Algal Enumeration	-										RC	RC	RC	RC	RC
Algal Identification	-										RC	RC	RC	RC	RC
Algal Toxins	-			RC	RC	RC	RC	RC	RC	RC					

Analysis Results - External Methods*

Area - EXTERNAL

Analyte	Sample ID	Start Date	Client ID	235223	235224
				28/06/2023	28/06/2023
Algal Enumeration	-			RC	RC
Algal Identification	-			RC	RC

Analysis Results - External Methods*

Area - EXTERNAL

Analyte	Sample ID	Start Date	Client ID	235204	235205	235206	235207	235208	235209	235210
				21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023
2.4.5-T	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2.4.6-T	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2.4-D	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2.4-DB	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2.4-DP	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
2.6-D	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Chlorophenoxy acetic acid	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
AMPA	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Clopyralid	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dicamba	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Fluroxypyr	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Glyphosate	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
MCPA	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
MCPB	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Mecoprop	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Princloram	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Silvex (2.4.5-TP/Fenoprop)	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10
Triclopyr	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10

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Analysis Results - External Methods*

Area - EXTERNAL

Analyte

	<i>Sample ID</i>	235285	235286	235287	235288	235289	235290	235291	235292	235293	235294	235295	235296
	<i>Start Date</i>	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023
	<i>Client ID</i>	E8-NUTS-Unfiltered	E9-NUTS-Unfiltered	E10-NUTS-Unfiltered	B4-NUTS-Unfiltered	E6-NUTS-Unfiltered	E6.5-NUTS-Unfiltered	E7-NUTS-Unfiltered	E8-NUTS-Filtered 1	E9-NUTS-Filtered 1	E10-NUTS-Filtered 1	B4-NUTS-Filtered 1	E6-NUTS-Filtered 1
Ammonia as N	mg/L								0.10	0.10	0.06	0.04	0.01
Nitrite+Nitrate as N	mg/L	0.38	0.10	0.12	<0.01	0.02	<0.01	0.08	0.10	0.15	0.17	0.02	0.02
Reactive Phosphorus as P	mg/L								0.14	0.05	0.06	0.14	<0.01
Total Kjeldahl Nitrogen as N	mg/L	1.2	1.6	2.2	0.9	3.9	<1.0	<1.0					
Total Nitrogen as N	mg/L	1.6	1.7	2.3	0.9	3.9	<1.0	<1.0					
Total Phosphorus as P	mg/L	0.28	0.28	0.33	0.30	0.46	<0.10	0.41					

Analysis Results - External Methods*

Area - EXTERNAL

Analyte

	<i>Sample ID</i>	235297	235298	235299	235300	235301	235302	235303	235304	235305
	<i>Start Date</i>	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023
	<i>Client ID</i>	E6.5-NUTS-Filtered 1	E7-NUTS-Filtered 1	E8-NUTS-Filtered 2	E9-NUTS-Filtered 2	E10-NUTS-Filtered 2	B4-NUTS-Filtered 2	E6-NUTS-Filtered 2	E6.5-NUTS-Filtered 2	E7-NUTS-Filtered 2
Ammonia as N	mg/L	<0.01	0.37							
Nitrite+Nitrate as N	mg/L	0.02	0.10	0.10	0.11	0.08	0.01	0.02	<0.01	0.07
Reactive Phosphorus as P	mg/L	0.07	0.21							
Total Kjeldahl Nitrogen as N	mg/L			0.4	0.3	0.3	0.3	0.6	0.4	0.5
Total Nitrogen as N	mg/L			0.5	0.4	0.4	0.3	0.6	0.4	0.6
Total Phosphorus as P	mg/L			0.14	0.15	0.13	0.26	0.06	0.18	0.25

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Analysis Results - ICVAASW

Area - INORGANIC

Analyte

		235211 19/06/2023 E8-5	235212 19/06/2023 E9-5	235213 19/06/2023 E10-5	235214 19/06/2023 B4-5	235215 19/06/2023 E6-5	235216 19/06/2023 E6.5-5	235217 19/06/2023 E7-5
Mercury	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Analysis Results - ICPAES

Area - INORGANIC

Analyte

		235211 19/06/2023 E8-5	235212 19/06/2023 E9-5	235213 19/06/2023 E10-5	235214 19/06/2023 B4-5	235215 19/06/2023 E6-5	235216 19/06/2023 E6.5-5	235217 19/06/2023 E7-5
Aluminium (Lab. filtered)	mg/L	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Barium (Lab. filtered)	mg/L	0.11	0.11	0.11	0.10	0.11	0.07	0.09
Boron (Lab. filtered)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Calcium (Lab. filtered)	mg/L	34	33	32	32	26	27	30
Iron (Lab. filtered)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Magnesium (Lab. filtered)	mg/L	15	15	15	13	15	16	14
Potassium (Lab. filtered)	mg/L	12	12	13	12	14	15	13
Sodium (Lab. filtered)	mg/L	43	44	47	39	59	54	48
Strontium (Lab. filtered)	mg/L	0.37	0.37	0.37	0.35	0.32	0.36	0.35
Sulfur (Lab. filtered)	mg/L	3.4	3.2	2.8	4.3	2.8	4.2	4.0
Titanium (Lab. filtered)	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

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Analysis Results - ICPMS

Area - INORGANIC

Analyte

	<i>Sample ID</i>	235211	235212	235213	235214	235215	235216	235217
	<i>Start Date</i>	19/06/2023	19/06/2023	19/06/2023	19/06/2023	19/06/2023	19/06/2023	19/06/2023
	<i>Client ID</i>	E8-5	E9-5	E10-5	B4-5	E6-5	E6.5-5	E7-5
Antimony (Lab. filtered)	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (Lab. filtered)	mg/L	0.004	0.005	0.005	0.006	0.005	0.007	0.007
Beryllium (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cadmium (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium (Lab. filtered)	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt (Lab. filtered)	mg/L	0.0002	0.0002	0.0004	<0.0001	0.0016	0.0004	0.0003
Copper (Lab. filtered)	mg/L	0.0024	0.0023	0.0024	0.0027	0.0010	0.0019	0.0016
Lead (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Lithium (Lab. filtered)	mg/L	0.0015	0.0016	0.0017	0.0018	0.0019	0.0028	0.0024
Manganese (Lab. filtered)	mg/L	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
Molybdenum (Lab. filtered)	mg/L	0.0012	0.0013	0.0014	0.0015	0.0011	0.0013	0.0012
Nickel (Lab. filtered)	mg/L	0.0031	0.0032	0.0035	0.0024	0.0028	0.0017	0.0021
Selenium (Lab. filtered)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium (Lab. filtered)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tin (Lab. filtered)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Vanadium (Lab. filtered)	mg/L	0.012	0.012	0.011	0.021	0.0093	0.023	0.023
Zinc (Lab. filtered)	mg/L	<0.001	<0.001	<0.001	0.002	<0.001	0.001	0.001

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Analysis Results - ICPAES

Area - INORGANIC

<i>Sample ID</i>	<i>Start Date</i>	<i>Client ID</i>	235211	235212	235213	235214	235215	235216	235217
			20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023
			E8-5	E9-5	E10-5	B4-5	E6-5	E6.5-5	E7-5

<i>Analyte</i>		235211	235212	235213	235214	235215	235216	235217
Aluminium (acid extractable)	mg/L	6.2	6.0	6.9	2.2	2.2	3.4	3.7
Barium (acid extractable)	mg/L	0.13	0.14	0.14	0.12	0.13	0.11	0.11
Boron (acid extractable)	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Calcium (acid extractable)	mg/L	35	35	34	36	27	31	31
Iron (acid extractable)	mg/L	4.7	4.5	5.6	1.4	1.7	2.6	2.8
Magnesium (acid extractable)	mg/L	16	16	17	14	16	17	16
Manganese (acid extractable)	mg/L	0.11	0.11	0.19	0.03	0.23	0.09	0.11
Potassium (acid extractable)	mg/L	14	14	14	13	15	15	15
Sodium (acid extractable)	mg/L	43	45	48	42	59	55	50
Strontium (acid extractable)	mg/L	0.38	0.39	0.39	0.38	0.34	0.39	0.37
Sulfur (acid extractable)	mg/L	3.4	3.3	2.9	4.3	3.0	4.4	4.1
Titanium (acid extractable)	mg/L	0.09	0.08	0.07	0.05	0.03	0.04	0.05

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Analysis Results - ICPMS

Area - INORGANIC

<i>Sample ID</i>	<i>Start Date</i>	<i>Client ID</i>	235211	235212	235213	235214	235215	235216	235217
			20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023
			E8-5	E9-5	E10-5	B4-5	E6-5	E6.5-5	E7-5

<i>Analyte</i>									
Antimony (acid extractable)	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Arsenic (acid extractable)	mg/L	0.005	0.005	0.006	0.006	0.005	0.007	0.007	0.007
Beryllium (acid extractable)	mg/L	0.0002	0.0002	0.0002	<0.0001	<0.0001	0.0001	<0.0001	<0.0001
Cadmium (acid extractable)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium (acid extractable)	mg/L	0.006	0.006	0.007	0.002	0.002	0.003	0.003	0.003
Cobalt (acid extractable)	mg/L	0.0021	0.0021	0.0030	0.0006	0.0031	0.0016	0.0018	0.0018
Copper (acid extractable)	mg/L	0.0054	0.0055	0.0063	0.0042	0.0026	0.0050	0.0042	0.0042
Lead (acid extractable)	mg/L	0.0014	0.0013	0.0018	0.0005	0.0009	0.0011	0.0010	0.0010
Lithium (acid extractable)	mg/L	0.0033	0.0033	0.0038	0.0026	0.0025	0.0036	0.0032	0.0032
Molybdenum (acid extractable)	mg/L	0.0014	0.0014	0.0014	0.0015	0.0019	0.0015	0.0014	0.0014
Nickel (acid extractable)	mg/L	0.0071	0.0069	0.0081	0.0038	0.0049	0.0046	0.0049	0.0049
Selenium (acid extractable)	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver (acid extractable)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium (acid extractable)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tin (acid extractable)	mg/L	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	0.0004	<0.0002	<0.0002
Vanadium (acid extractable)	mg/L	0.022	0.021	0.024	0.025	0.014	0.029	0.030	0.030
Zinc (acid extractable)	mg/L	0.012	0.009	0.012	0.008	0.006	0.010	0.006	0.006

Analysis Results - IGRSS

Area - INORGANIC

<i>Sample ID</i>	<i>Start Date</i>	<i>Client ID</i>	235183	235184	235185	235186	235187	235188	235189
			23/06/2023	23/06/2023	23/06/2023	23/06/2023	23/06/2023	23/06/2023	23/06/2023
			E8-1	E9-1	E10-1	B4-1	E6-1	E6.5-1	E7-1

<i>Analyte</i>									
Fixed Suspended Solids	mg/L	71	93	82	24	61	66	47	47
Total Suspended Solids	mg/L	81	97	97	29	69	77	59	59
Volatile Suspended Solids	mg/L	10	4	15	5	8	11	12	12

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Codes: SN = Sample Note

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RC = Project Comment



Analysis Results - QQPEST

Area - ORGANIC

Analyte	Sample ID Start Date Client ID	235190	235191	235192	235193	235194	235195	235196
		20/06/2023 E8-2	20/06/2023 E9-2	20/06/2023 E10-2	20/06/2023 B4-2	20/06/2023 E6-2	20/06/2023 E6.5-2	20/06/2023 E7-2
Aldrin	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Allethrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Alpha-Chlordane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
alpha-HCH	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Ametryn	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Atraton	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Atrazine	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
beta-HCH	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bifenthrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bioresmethrin	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carbophenothion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Cis-permethrin	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Crotoxyphos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cyfluthrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cypermethrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
delta-HCH	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Deltamethrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorvos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Dieldrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Endosulfan II	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Endosulfan I	µg/L	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9
Endosulfan Sulfate	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Endrin Aldehyde	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Endrin Ketone	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Endrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenamiphos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenthion	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4

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Analysis Results - QQPEST

Area - ORGANIC

Analyte	Sample ID Start Date Client ID	235190	235191	235192	235193	235194	235195	235196
		20/06/2023 E8-2	20/06/2023 E9-2	20/06/2023 E10-2	20/06/2023 B4-2	20/06/2023 E6-2	20/06/2023 E6.5-2	20/06/2023 E7-2
Fenvalerate	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Gamma-Chlordane	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
gamma-HCH	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Heptachlor Epoxide	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Hexachlorobenzene	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Hexazinone	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
L-cyhalothrin	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Malathion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methidathion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl Azinphos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Methyl Chlorpyrifos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Methyl Parathion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Mevinphos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Oxyfluorfen	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Parathion	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phorate	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Profenofos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Prometon	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Prometryn	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Propargite	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Propazine	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Propetamphos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Simazine	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Simetryn	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sulprofos	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Tebuconazole	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tebuthiuron	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Terbutylazine	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Terbutryn	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachlorvinphos	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trans-permethrin	µg/L	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7

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Area - ORGANIC

Sample ID	Client ID	Method	Start Date	Result
235190	E8-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
235191	E9-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
235192	E10-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
235193	B4-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
235194	E6-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
235195	E6.5-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).
235196	E7-2	OLCSCAN* - LC/MS Scan	19/06/2023	LC/MS scan for approximately 600 pesticides was negative. A list of analysed compounds can be provided on request. Note the list doesn't include glyphosate and quaternary ammonium herbicides (e.g. Paraquat and Diquat).

The sample(s) referred to in this report were analysed by the following method(s):

Method code	Method description	Area
External Methods*	External Methods - Analysis completed externally	EXTERNAL
External Methods*	External Methods - Analysis completed externally	EXTERNAL
External Methods*	External Methods - Analysis completed externally	EXTERNAL
ICVAASW	Mercury by Cold Vapour Atomic Absorption Spectroscopy	INORGANIC
ICPAES	Dissolved element analysis by Inductively Coupled Plasma-Atomic Emission Spectrometry (ICPAES)	INORGANIC
ICPMS	Dissolved Metals by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	INORGANIC
ICPAES	Acid extractable element analysis by Inductively Coupled Plasma-Atomic Emission Spectrometry (ICPAES)	INORGANIC
ICPMS	Acid extractable Metals by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	INORGANIC
IGRTSS	Total Suspended Solids (TSS) (includes Volatile and Fixed Suspended Solids)	INORGANIC
QQQPEST	Determination of Multiresidue Pesticides by GCMSMS	ORGANIC
OLCSCAN*	Qualitative LC/MS scan	ORGANIC

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The results in this report were authorised by:

<i>Name</i>	<i>Title</i>	<i>Area</i>
██████████	Senior Scientist	EXTERNAL
████████████████████	Scientist	INORGANIC
██████	Scientist	ORGANIC