ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EW2100682**	Page	: 1 of 19
Client	: **WOLLONGONG CITY COUNCIL**	Laboratory	: Environmental Division NSW South Coast
Contact	: DELLA KUTZNER	Contact	: Glenn Davies
Address	: 41 BURELLI STREET WOLLONGONG NSW, AUSTRALIA 2500	Address	: 1/19 Ralph Black Dr, North Wollongong 2500 4/13 Geary Pl, North Nowra 2541 Australia NSW Australia
Telephone	: +61 02 4227 7111	Telephone	: 02 42253125
Project	: Whytes Gully Stage 3 Bores Annual	Date Samples Received	: 15-Feb-2021 16:12
Order number	: 1021509	Date Analysis Commenced	: 15-Feb-2021
C-O-C number	: ----	Issue Date	: 23-Feb-2021 16:42
Sampler	: Robert DaLio		
Site	: ----		
Quote number	: WO/005/18 TENDER		
No. of samples received	: 13		
No. of samples analysed	: 13		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Robert DaLio	Sampler	Laboratory - Wollongong, NSW
Sanjeshni Jyoti	Senior Chemist Volatiles	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- **Analytical work for this work order will be conducted at ALS Sydney.**
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- TDS by method EA-015 may bias high for various samples due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.
- pH performed by ALS Wollongong via in-house method EA005FD and EN67 PK.
- Electrical conductivity performed by ALS Wollongong via in-house method EA010FD and EN67 PK.
- Sampling and groundwater depth measurements completed by ALS Wollongong via inhouse sampling method EN/67.11 Groundwater Sampling.
- All field analysis performed by ALS Wollongong were completed at the time of sampling.

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	GMW102 (Point 9)	GMW103 (Point 10)	GMW104 (Point 11)	GMW105 (Point 12)	GMW106 (Point 13)
				Sampling date / time	15-Feb-2021 13:10	15-Feb-2021 13:24	15-Feb-2021 12:55	15-Feb-2021 13:40	15-Feb-2021 13:55
					EW2100682-001	EW2100682-002	EW2100682-003	EW2100682-004	EW2100682-005
					Result	Result	Result	Result	Result
EA005FD: Field pH									
pH	----	0.1	pH Unit		**6.8**	**7.2**	**7.1**	**5.8**	**----**
EA010FD: Field Conductivity									
Electrical Conductivity (Non Compensated)	----	1	µS/cm		**329**	**1520**	**581**	**268**	**----**
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**308**	**923**	**346**	**212**	**----**
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	**----**
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	**----**
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**139**	**629**	**228**	**49**	**----**
Total Alkalinity as CaCO3	----	1	mg/L		**139**	**629**	**228**	**49**	**----**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**12**	**83**	**21**	**30**	**----**
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**24**	**110**	**51**	**48**	**----**
ED093T: Total Major Cations									
Calcium	7440-70-2	1	mg/L		**40**	**126**	**33**	**9**	**----**
Magnesium	7439-95-4	1	mg/L		**20**	**50**	**20**	**4**	**----**
Sodium	7440-23-5	1	mg/L		**25**	**159**	**66**	**36**	**----**
Potassium	7440-09-7	1	mg/L		**3**	**1**	**1**	<1	**----**
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**24.6**	**2.49**	**4.60**	**1.76**	**----**
Arsenic	7440-38-2	0.001	mg/L		**0.001**	<0.001	<0.001	<0.001	**----**
Barium	7440-39-3	0.001	mg/L		**0.109**	**0.020**	**0.020**	**0.007**	**----**
Cadmium	7440-43-9	0.0001	mg/L		**0.0001**	<0.0001	<0.0001	<0.0001	**----**
Cobalt	7440-48-4	0.001	mg/L		**0.012**	**0.003**	**0.003**	<0.001	**----**
Chromium	7440-47-3	0.001	mg/L		**0.010**	**0.003**	**0.004**	<0.001	**----**
Copper	7440-50-8	0.001	mg/L		**0.034**	**0.008**	**0.010**	**0.002**	**----**
Manganese	7439-96-5	0.001	mg/L		**0.587**	**0.110**	**0.358**	**0.027**	**----**
Lead	7439-92-1	0.001	mg/L		**0.011**	**0.004**	**0.004**	<0.001	**----**
Zinc	7440-66-6	0.005	mg/L		**0.087**	**0.016**	**0.018**	**0.006**	**----**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	GMW102 (Point 9)	GMW103 (Point 10)	GMW104 (Point 11)	GMW105 (Point 12)	GMW106 (Point 13)
			Sampling date / time	15-Feb-2021 13:10	15-Feb-2021 13:24	15-Feb-2021 12:55	15-Feb-2021 13:40	15-Feb-2021 13:55
Compound	CAS Number	LOR	Unit	EW2100682-001	EW2100682-002	EW2100682-003	EW2100682-004	EW2100682-005
				Result	Result	Result	Result	Result
EG050T: Total Hexavalent Chromium								
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	**0.2**	**0.4**	**0.6**	**0.2**	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	**0.81**	**0.04**	**0.10**	**1.91**	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	**0.81**	**0.04**	**0.10**	**1.91**	----
EN67 PK: Field Tests								
Field Observations	----	0.01	--	**----**	**----**	**----**	**----**	**DRY**
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon	----	1	mg/L	**1**	**1**	**2**	<1	----
EP035G: Total Phenol by Discrete Analyser								
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Aldrin	309-00-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
4.4`-DDE	72-55-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
Endrin	72-20-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	GMW102 (Point 9)	GMW103 (Point 10)	GMW104 (Point 11)	GMW105 (Point 12)	GMW106 (Point 13)
				Sampling date / time	15-Feb-2021 13:10	15-Feb-2021 13:24	15-Feb-2021 12:55	15-Feb-2021 13:40	15-Feb-2021 13:55
Compound	CAS Number	LOR	Unit		EW2100682-001	EW2100682-002	EW2100682-003	EW2100682-004	EW2100682-005
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Methoxychlor	72-43-5	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----
^ Total Chlordane (sum)	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----
Dimethoate	60-51-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Diazinon	333-41-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----
Malathion	121-75-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Fenthion	55-38-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Parathion	56-38-2	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Prothiofos	34643-46-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Ethion	563-12-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Carbophenothion	786-19-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	GMW102 (Point 9)	GMW103 (Point 10)	GMW104 (Point 11)	GMW105 (Point 12)	GMW106 (Point 13)
				Sampling date / time	15-Feb-2021 13:10	15-Feb-2021 13:24	15-Feb-2021 12:55	15-Feb-2021 13:40	15-Feb-2021 13:55
					EW2100682-001	EW2100682-002	EW2100682-003	EW2100682-004	EW2100682-005
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	<20	<20	<20	----
C10 - C14 Fraction	----	50	µg/L		<50	<50	<50	<50	----
C15 - C28 Fraction	----	100	µg/L		<100	<100	<100	<100	----
C29 - C36 Fraction	----	50	µg/L		<50	<50	<50	<50	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	<50	<50	<50	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	<20	<20	<20	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	<20	<20	<20	----
>C10 - C16 Fraction	----	100	µg/L		<100	<100	<100	<100	----
>C16 - C34 Fraction	----	100	µg/L		<100	<100	<100	<100	----
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	<100	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	<100	<100	<100	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	<100	<100	<100	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	<1	<1	<1	----
Toluene	108-88-3	2	µg/L		<2	<2	<2	<2	----

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	GMW102 (Point 9)	GMW103 (Point 10)	GMW104 (Point 11)	GMW105 (Point 12)	GMW106 (Point 13)
				Sampling date / time	15-Feb-2021 13:10	15-Feb-2021 13:24	15-Feb-2021 12:55	15-Feb-2021 13:40	15-Feb-2021 13:55
					EW2100682-001	EW2100682-002	EW2100682-003	EW2100682-004	EW2100682-005
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
Ethylbenzene	100-41-4	2	µg/L		<2	<2	<2	<2	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	----
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	----
^ **Total Xylenes**	----	2	µg/L		<2	<2	<2	<2	----
^ **Sum of BTEX**	----	1	µg/L		<1	<1	<1	<1	----
Naphthalene	91-20-3	5	µg/L		<5	<5	<5	<5	----
FWI-EN/001: Groundwater Sampling - Depth									
Depth	----	0.01	m		**9.02**	**6.78**	**6.95**	**10.3**	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.5	%		**76.7**	**85.6**	**95.5**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.5	%		**67.8**	**77.1**	**95.9**	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**24.4**	**29.1**	**27.7**	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**50.1**	**59.7**	**58.2**	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**56.6**	**59.8**	**69.7**	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**67.3**	**76.6**	**72.4**	----	----
Anthracene-d10	1719-06-8	1.0	%		**72.2**	**82.4**	**87.7**	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		**70.4**	**78.3**	**87.0**	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**97.0**	**102**	**99.0**	**104**	----
Toluene-D8	2037-26-5	2	%		**102**	**104**	**108**	**105**	----
4-Bromofluorobenzene	460-00-4	2	%		**120**	**122**	**125**	**120**	----

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	GMW108S (Point 14)	GMW108D (Point 15)	GMW109S (Point 16)	GMW109D (Point 19)	GMW110 (Point 17)
				Sampling date / time	15-Feb-2021 12:20	15-Feb-2021 12:30	15-Feb-2021 11:35	15-Feb-2021 11:47	15-Feb-2021 11:17
					EW2100682-006	EW2100682-007	EW2100682-008	EW2100682-009	EW2100682-010
					Result	Result	Result	Result	Result
EA005FD: Field pH									
pH	----	0.1	pH Unit		**6.8**	**6.8**	**6.2**	**6.9**	**6.8**
EA010FD: Field Conductivity									
Electrical Conductivity (Non Compensated)	----	1	µS/cm		**601**	**2700**	**1070**	**1890**	**4020**
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**404**	**1560**	**667**	**1120**	**2470**
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**227**	**460**	**218**	**255**	**650**
Total Alkalinity as CaCO3	----	1	mg/L		**227**	**460**	**218**	**255**	**650**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**24**	**170**	**151**	**27**	**321**
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**60**	**612**	**157**	**514**	**908**
ED093T: Total Major Cations									
Calcium	7440-70-2	1	mg/L		**45**	**116**	**56**	**101**	**192**
Magnesium	7439-95-4	1	mg/L		**17**	**74**	**34**	**51**	**152**
Sodium	7440-23-5	1	mg/L		**56**	**326**	**111**	**191**	**437**
Potassium	7440-09-7	1	mg/L		**6**	**4**	**3**	**1**	**2**
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**3.94**	**0.35**	**5.15**	**0.03**	**1.83**
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	**0.001**	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L		**0.096**	**0.039**	**0.101**	**0.135**	**0.008**
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	**0.0004**	<0.0001	<0.0001
Cobalt	7440-48-4	0.001	mg/L		**0.002**	**0.001**	**0.024**	**0.002**	**0.002**
Chromium	7440-47-3	0.001	mg/L		**0.003**	<0.001	**0.007**	<0.001	**0.001**
Copper	7440-50-8	0.001	mg/L		**0.010**	<0.001	**0.016**	<0.001	**0.002**
Manganese	7439-96-5	0.001	mg/L		**0.082**	**0.225**	**2.25**	**0.824**	**0.096**
Lead	7439-92-1	0.001	mg/L		**0.003**	<0.001	**0.005**	<0.001	**0.001**
Zinc	7440-66-6	0.005	mg/L		**0.013**	<0.005	**0.033**	<0.005	**0.009**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	GMW108S (Point 14)	GMW108D (Point 15)	GMW109S (Point 16)	GMW109D (Point 19)	GMW110 (Point 17)
				Sampling date / time	15-Feb-2021 12:20	15-Feb-2021 12:30	15-Feb-2021 11:35	15-Feb-2021 11:47	15-Feb-2021 11:17
					EW2100682-006	EW2100682-007	EW2100682-008	EW2100682-009	EW2100682-010
					Result	Result	Result	Result	Result
EG050T: Total Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L		**0.2**	**0.4**	<0.1	**0.4**	**0.4**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.05**	**0.03**	**0.28**	**0.09**	<0.01
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.01**	<0.01	<0.01	**0.01**	**0.75**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.01**	<0.01	<0.01	**0.01**	**0.75**
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L		**8**	**2**	**5**	<1	<1
EP035G: Total Phenol by Discrete Analyser									
Phenols (Total)	----	0.05	mg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
beta-BHC	319-85-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
gamma-BHC	58-89-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
delta-BHC	319-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor	76-44-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Aldrin	309-00-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Heptachlor epoxide	1024-57-3	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
trans-Chlordane	5103-74-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
alpha-Endosulfan	959-98-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
cis-Chlordane	5103-71-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Dieldrin	60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDE	72-55-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endrin	72-20-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	GMW108S (Point 14)	GMW108D (Point 15)	GMW109S (Point 16)	GMW109D (Point 19)	GMW110 (Point 17)
				Sampling date / time	15-Feb-2021 12:20	15-Feb-2021 12:30	15-Feb-2021 11:35	15-Feb-2021 11:47	15-Feb-2021 11:17
					EW2100682-006	EW2100682-007	EW2100682-008	EW2100682-009	EW2100682-010
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Methoxychlor	72-43-5	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
^ **Total Chlordane (sum)**	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Dimethoate	60-51-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon	333-41-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Malathion	121-75-5	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenthion	55-38-9	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Parathion	56-38-2	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Prothiofos	34643-46-4	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	563-12-2	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Carbophenothion	786-19-6	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	GMW108S (Point 14)	GMW108D (Point 15)	GMW109S (Point 16)	GMW109D (Point 19)	GMW110 (Point 17)
				Sampling date / time	15-Feb-2021 12:20	15-Feb-2021 12:30	15-Feb-2021 11:35	15-Feb-2021 11:47	15-Feb-2021 11:17
Compound	CAS Number	LOR	Unit		EW2100682-006	EW2100682-007	EW2100682-008	EW2100682-009	EW2100682-010
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L		<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		<20	<20	<20	<20	<20
>C10 - C16 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	<100	<100	<100	<100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L		<100	<100	<100	<100	<100
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L		<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L		<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	<2

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	GMW108S (Point 14)	GMW108D (Point 15)	GMW109S (Point 16)	GMW109D (Point 19)	GMW110 (Point 17)
				Sampling date / time	15-Feb-2021 12:20	15-Feb-2021 12:30	15-Feb-2021 11:35	15-Feb-2021 11:47	15-Feb-2021 11:17
Compound	CAS Number	LOR	Unit		EW2100682-006	EW2100682-007	EW2100682-008	EW2100682-009	EW2100682-010
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	<2
^ Total Xylenes	----	2	µg/L		<2	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L		<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L		<5	<5	<5	<5	<5
FWI-EN/001: Groundwater Sampling - Depth									
Depth	----	0.01	m		2.59	2.12	3.08	2.88	3.98
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.5	%		83.0	102	68.4	99.5	89.8
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.5	%		74.9	83.7	68.1	80.0	91.6
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		19.8	30.6	18.2	27.7	28.2
2-Chlorophenol-D4	93951-73-6	1.0	%		41.6	62.9	48.2	57.8	62.3
2.4.6-Tribromophenol	118-79-6	1.0	%		59.4	69.3	58.8	64.6	74.0
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		53.9	80.1	55.0	71.6	86.3
Anthracene-d10	1719-06-8	1.0	%		75.8	86.0	63.0	82.4	93.0
4-Terphenyl-d14	1718-51-0	1.0	%		76.0	81.9	97.1	82.4	91.0
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		100	92.7	81.6	101	98.3
Toluene-D8	2037-26-5	2	%		106	91.9	88.5	107	102
4-Bromofluorobenzene	460-00-4	2	%		124	109	100	124	114

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	GMW111 (Point 18)	GABH02 (Point 5)	BH6 (Point 20)	----	----
			Sampling date / time	15-Feb-2021 11:05	15-Feb-2021 12:45	15-Feb-2021 12:04	----	----
Compound	CAS Number	LOR	Unit	EW2100682-011	EW2100682-012	EW2100682-013	--------	--------
				Result	Result	Result	----	----
EA005FD: Field pH								
pH	----	0.1	pH Unit	7.0	----	6.8	----	----
EA010FD: Field Conductivity								
Electrical Conductivity (Non Compensated)	----	1	µS/cm	3540	----	2140	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	1990	----	1290	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	----	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	----	<1	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	715	----	664	----	----
Total Alkalinity as CaCO3	----	1	mg/L	715	----	664	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	188	----	58	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	742	----	327	----	----
ED093T: Total Major Cations								
Calcium	7440-70-2	1	mg/L	128	----	86	----	----
Magnesium	7439-95-4	1	mg/L	106	----	53	----	----
Sodium	7440-23-5	1	mg/L	468	----	301	----	----
Potassium	7440-09-7	1	mg/L	2	----	3	----	----
EG020T: Total Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	3.11	----	0.33	----	----
Arsenic	7440-38-2	0.001	mg/L	0.002	----	0.004	----	----
Barium	7440-39-3	0.001	mg/L	0.047	----	0.062	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	<0.0001	----	----
Cobalt	7440-48-4	0.001	mg/L	0.003	----	0.008	----	----
Chromium	7440-47-3	0.001	mg/L	0.003	----	<0.001	----	----
Copper	7440-50-8	0.001	mg/L	0.006	----	0.001	----	----
Manganese	7439-96-5	0.001	mg/L	1.37	----	1.54	----	----
Lead	7439-92-1	0.001	mg/L	0.003	----	0.002	----	----
Zinc	7440-66-6	0.005	mg/L	0.014	----	0.005	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	<0.0001	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	GMW111 (Point 18)	GABH02 (Point 5)	BH6 (Point 20)	----	----
			Sampling date / time	15-Feb-2021 11:05	15-Feb-2021 12:45	15-Feb-2021 12:04	----	----
Compound	CAS Number	LOR	Unit	EW2100682-011	EW2100682-012	EW2100682-013	--------	--------
				Result	Result	Result	----	----
EG050T: Total Hexavalent Chromium								
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	----	<0.01	----	----
EK040P: Fluoride by PC Titrator								
Fluoride	16984-48-8	0.1	mg/L	**0.4**	----	**0.6**	----	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	**0.21**	----	**0.38**	----	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	----	<0.01	----	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	----	**0.02**	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	----	**0.02**	----	----
EN67 PK: Field Tests								
Field Observations	----	0.01	--	----	**Damaged / No Sample**	----	----	----
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon	----	1	mg/L	**2**	----	**10**	----	----
EP035G: Total Phenol by Discrete Analyser								
Phenols (Total)	----	0.05	mg/L	<0.05	----	<0.05	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.5	µg/L	<0.5	----	<0.5	----	----
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	----	<0.5	----	----
beta-BHC	319-85-7	0.5	µg/L	<0.5	----	<0.5	----	----
gamma-BHC	58-89-9	0.5	µg/L	<0.5	----	<0.5	----	----
delta-BHC	319-86-8	0.5	µg/L	<0.5	----	<0.5	----	----
Heptachlor	76-44-8	0.5	µg/L	<0.5	----	<0.5	----	----
Aldrin	309-00-2	0.5	µg/L	<0.5	----	<0.5	----	----
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	----	<0.5	----	----
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	----	<0.5	----	----
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	----	<0.5	----	----
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	----	<0.5	----	----
Dieldrin	60-57-1	0.5	µg/L	<0.5	----	<0.5	----	----
4.4`-DDE	72-55-9	0.5	µg/L	<0.5	----	<0.5	----	----
Endrin	72-20-8	0.5	µg/L	<0.5	----	<0.5	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	GMW111 (Point 18)	GABH02 (Point 5)	BH6 (Point 20)	----	----
				Sampling date / time	15-Feb-2021 11:05	15-Feb-2021 12:45	15-Feb-2021 12:04	----	----
Compound	CAS Number	LOR	Unit		EW2100682-011	EW2100682-012	EW2100682-013	--------	--------
					Result	Result	Result	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.5	µg/L		<0.5	----	<0.5	----	----
4.4`-DDD	72-54-8	0.5	µg/L		<0.5	----	<0.5	----	----
Endrin aldehyde	7421-93-4	0.5	µg/L		<0.5	----	<0.5	----	----
Endosulfan sulfate	1031-07-8	0.5	µg/L		<0.5	----	<0.5	----	----
4.4`-DDT	50-29-3	2.0	µg/L		<2.0	----	<2.0	----	----
Endrin ketone	53494-70-5	0.5	µg/L		<0.5	----	<0.5	----	----
Methoxychlor	72-43-5	2.0	µg/L		<2.0	----	<2.0	----	----
^ Total Chlordane (sum)	----	0.5	µg/L		<0.5	----	<0.5	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.5	µg/L		<0.5	----	<0.5	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	µg/L		<0.5	----	<0.5	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L		<0.5	----	<0.5	----	----
Demeton-S-methyl	919-86-8	0.5	µg/L		<0.5	----	<0.5	----	----
Monocrotophos	6923-22-4	2.0	µg/L		<2.0	----	<2.0	----	----
Dimethoate	60-51-5	0.5	µg/L		<0.5	----	<0.5	----	----
Diazinon	333-41-5	0.5	µg/L		<0.5	----	<0.5	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L		<0.5	----	<0.5	----	----
Parathion-methyl	298-00-0	2.0	µg/L		<2.0	----	<2.0	----	----
Malathion	121-75-5	0.5	µg/L		<0.5	----	<0.5	----	----
Fenthion	55-38-9	0.5	µg/L		<0.5	----	<0.5	----	----
Chlorpyrifos	2921-88-2	0.5	µg/L		<0.5	----	<0.5	----	----
Parathion	56-38-2	2.0	µg/L		<2.0	----	<2.0	----	----
Pirimphos-ethyl	23505-41-1	0.5	µg/L		<0.5	----	<0.5	----	----
Chlorfenvinphos	470-90-6	0.5	µg/L		<0.5	----	<0.5	----	----
Bromophos-ethyl	4824-78-6	0.5	µg/L		<0.5	----	<0.5	----	----
Fenamiphos	22224-92-6	0.5	µg/L		<0.5	----	<0.5	----	----
Prothiofos	34643-46-4	0.5	µg/L		<0.5	----	<0.5	----	----
Ethion	563-12-2	0.5	µg/L		<0.5	----	<0.5	----	----
Carbophenothion	786-19-6	0.5	µg/L		<0.5	----	<0.5	----	----
Azinphos Methyl	86-50-0	0.5	µg/L		<0.5	----	<0.5	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	----	<1.0	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	----	<1.0	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	GMW111 (Point 18)	GABH02 (Point 5)	BH6 (Point 20)	----	----
				Sampling date / time	15-Feb-2021 11:05	15-Feb-2021 12:45	15-Feb-2021 12:04	----	----
Compound	CAS Number	LOR	Unit		EW2100682-011	EW2100682-012	EW2100682-013	--------	--------
					Result	Result	Result	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	1.0	µg/L		<1.0	----	<1.0	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	----	<1.0	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	----	<1.0	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	----	<1.0	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	----	<1.0	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	----	<1.0	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	----	<1.0	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	----	<1.0	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	----	<1.0	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	----	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	----	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	----	<1.0	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	----	<1.0	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	----	<1.0	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L		<0.5	----	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L		<0.5	----	<0.5	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	<20	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	<50	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	<100	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	<50	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L		<50	----	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	<20	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		<20	----	<20	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	<100	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	<100	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	<100	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	----	<100	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L		<100	----	<100	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	<1	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	GMW111 (Point 18)	GABH02 (Point 5)	BH6 (Point 20)	----	----
			Sampling date / time	15-Feb-2021 11:05	15-Feb-2021 12:45	15-Feb-2021 12:04	----	----
Compound	CAS Number	LOR	Unit	EW2100682-011	EW2100682-012	EW2100682-013	--------	--------
				Result	Result	Result	----	----
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	----	<2	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	----	<2	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	<2	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	----	<2	----	----
^ Total Xylenes	----	2	µg/L	<2	----	<2	----	----
^ Sum of BTEX	----	1	µg/L	<1	----	<1	----	----
Naphthalene	91-20-3	5	µg/L	<5	----	<5	----	----
FWI-EN/001: Groundwater Sampling - Depth								
Depth	----	0.01	m	**6.25**	----	**1.37**	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.5	%	**72.7**	----	**104**	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.5	%	**98.3**	----	**79.3**	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	1.0	%	**28.2**	----	**26.3**	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%	**57.5**	----	**66.2**	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%	**65.5**	----	**79.0**	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	1.0	%	**74.1**	----	**90.7**	----	----
Anthracene-d10	1719-06-8	1.0	%	**81.4**	----	**94.9**	----	----
4-Terphenyl-d14	1718-51-0	1.0	%	**77.4**	----	**93.4**	----	----
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	2	%	**102**	----	**109**	----	----
Toluene-D8	2037-26-5	2	%	**110**	----	**103**	----	----
4-Bromofluorobenzene	460-00-4	2	%	**127**	----	**101**	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	67	111
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	67	111
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128

Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry) 14913 (Biology).

(WATER) EG035T: Total Recoverable Mercury by FIMS
(WATER) EP068A: Organochlorine Pesticides (OC)
(WATER) EP068B: Organophosphorus Pesticides (OP)
(WATER) EP068S: Organochlorine Pesticide Surrogate
(WATER) EP068T: Organophosphorus Pesticide Surrogate
(WATER) EP005: Total Organic Carbon (TOC)
(WATER) EP035G: Total Phenol by Discrete Analyser
(WATER) EK055G: Ammonia as N by Discrete Analyser
(WATER) EG050T: Total Hexavalent Chromium
(WATER) EG020T: Total Metals by ICP-MS
(WATER) EK057G: Nitrite as N by Discrete Analyser
(WATER) EK058G: Nitrate as N by Discrete Analyser
(WATER) EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser
(WATER) EA015: Total Dissolved Solids dried at 180 ± 5 °C
(WATER) ED045G: Chloride by Discrete Analyser
(WATER) ED037P: Alkalinity by PC Titrator
(WATER) EK040P: Fluoride by PC Titrator
(WATER) ED041G: Sulfate (Turbidimetric) as SO4 2- by DA
(WATER) ED093T: Total Major Cations
(WATER) EP080/071: Total Petroleum Hydrocarbons
(WATER) EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions
(WATER) EP080: BTEXN
(WATER) EP080S: TPH(V)/BTEX Surrogates
(WATER) EP075(SIM)B: Polynuclear Aromatic Hydrocarbons
(WATER) EP075(SIM)T: PAH Surrogates
(WATER) EP075(SIM)S: Phenolic Compound Surrogates