

## CERTIFICATE OF ANALYSIS

**Work Order** : **EW2205015**  
**Client** : **KIAMA COUNCIL**  
**Contact** : MS JULIE MILEVSKI  
**Address** : 11 MANNING STREET  
 KIAMA NSW, AUSTRALIA 2533  
**Telephone** : +61 02 4232 0557  
**Project** : Minnamurra Landfill  
**Order number** : 16303  
**C-O-C number** : ----  
**Sampler** : Robert DaLio  
**Site** : Minnamurra Landfill  
**Quote number** : WO/009/21  
**No. of samples received** : 20  
**No. of samples analysed** : 20

**Page** : 1 of 11  
**Laboratory** : Environmental Division NSW South Coast  
**Contact** : Aneta Prosaroski  
**Address** : 1/19 Ralph Black Dr, North Wollongong 2500 NSW Australia  
**Telephone** : 02 42253125  
**Date Samples Received** : 03-Nov-2022 14:30  
**Date Analysis Commenced** : 03-Nov-2022  
**Issue Date** : 14-Nov-2022 14:18



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

**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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Aneta Prosaroski	Client Liaison Officer	Laboratory - Wollongong, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, 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 Contract 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.**
- EK055G: LOR raised for Ammonia on sample 3 due to sample matrix.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO<sub>2</sub> and Fluoride to the Anions.
- EK059G: LOR raised for NO<sub>x</sub> due to sample matrix #12
- EK057G: LOR raised for Nitrite due to sample matrix #3,9 and 12
- EK059G: LOR raised for NO<sub>x</sub> due to sample matrix #3
- ED041G: LOR raised for Sulfate due to sample matrix #9 and #12
- ED041G: LOR raised for Sulfate due to sample matrix #13,14 and 16
- EP002 : It has been noted that DOC is greater than TOC for various samples, however this difference is within the limits of experimental variation.
- 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 High Flow and Nailor Method.
- Sampling completed by ALS Wollongong in accordance with in-house sampling method EN/67.6 Rivers and Streams.
- Temperature performed by ALS Wollongong via in-house method EA116 and EN67 PK.
- Dissolved oxygen (DO) performed by ALS Wollongong via in-house method EA025FD and EN67 PK.
- All field analysis performed by ALS Wollongong were completed at the time of sampling.
- Salinity performed by ALS Wollongong via in-house method EA020FD and EN67 PK.
- Sample collection of Ground Waters by in-house EN67 where the "surface layer of the aquifer was sampled".
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 1A	MD 1B	MD 2A	MD 2B	MD 2C
Sampling date / time				03-Nov-2022 00:00	03-Nov-2022 12:50	03-Nov-2022 12:40	03-Nov-2022 12:43	03-Nov-2022 12:51	
Compound	CAS Number	LOR	Unit	EW2205015-001	EW2205015-002	EW2205015-003	EW2205015-004	EW2205015-005	
				Result	Result	Result	Result	Result	
<b>EA005FD: Field pH</b>									
pH	----	0.1	pH Unit	----	7.5	7.2	7.2	7.0	
<b>EA010FD: Field Conductivity</b>									
Electrical Conductivity (Non Compensated)	----	1	µS/cm	----	598	13300	6630	26800	
<b>EA020FD: Field Salinity</b>									
Salinity	----	0.2	g/L	----	0.32	9.46	4.42	19.95	
<b>EA116: Temperature</b>									
Temperature	----	0.5	°C	----	19.4	16.0	16.4	16.7	
<b>ED037P: Alkalinity by PC Titrator</b>									
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	----	168	680	900	692	
Total Alkalinity as CaCO3	----	1	mg/L	----	168	680	900	692	
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	----	32	733	253	1580	
<b>ED045G: Chloride by Discrete Analyser</b>									
Chloride	16887-00-6	1	mg/L	----	84	5230	1830	9590	
<b>ED093F: Dissolved Major Cations</b>									
Calcium	7440-70-2	1	mg/L	----	50	156	147	328	
Magnesium	7439-95-4	1	mg/L	----	9	289	152	633	
Sodium	7440-23-5	1	mg/L	----	48	2670	1210	5430	
Potassium	7440-09-7	1	mg/L	----	9	112	95	234	
<b>EG020F: Dissolved Metals by ICP-MS</b>									
Manganese	7439-96-5	0.001	mg/L	----	0.040	0.174	0.024	0.096	
Iron	7439-89-6	0.05	mg/L	----	0.32	2.71	0.30	0.94	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	----	0.2	1.3	0.8	0.8	
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L	----	7.62	<0.10	28.8	7.95	
<b>EK057G: Nitrite as N by Discrete Analyser</b>									
Nitrite as N	14797-65-0	0.01	mg/L	----	<0.01	<0.10	<0.01	<0.01	
<b>EK058G: Nitrate as N by Discrete Analyser</b>									
Nitrate as N	14797-55-8	0.01	mg/L	----	0.46	<0.10	<0.01	<0.01	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 1A	MD 1B	MD 2A	MD 2B	MD 2C
Sampling date / time				03-Nov-2022 00:00	03-Nov-2022 12:50	03-Nov-2022 12:40	03-Nov-2022 12:43	03-Nov-2022 12:51	
Compound	CAS Number	LOR	Unit	EW2205015-001	EW2205015-002	EW2205015-003	EW2205015-004	EW2205015-005	
				Result	Result	Result	Result	Result	
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>									
Nitrite + Nitrate as N	----	0.01	mg/L	----	0.46	<0.10	<0.01	<0.01	
<b>EN055: Ionic Balance</b>									
∅ Total Anions	----	0.01	meq/L	----	6.39	176	74.9	317	
∅ Total Cations	----	0.01	meq/L	----	6.10	----	----	----	
∅ Total Cations	----	0.01	meq/L	----	----	150	74.9	311	
∅ Ionic Balance	----	0.01	%	----	2.38	----	----	----	
∅ Ionic Balance	----	0.01	%	----	----	7.89	0.02	1.05	
<b>EN67 PK: Field Tests</b>									
Field Observations	----	0.01	--	DESTROYED	----	----	----	----	
<b>EP002: Dissolved Organic Carbon (DOC)</b>									
Dissolved Organic Carbon	----	1	mg/L	----	6	60	41	32	
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L	----	5	62	45	27	
<b>EP025FD: Field Dissolved Oxygen</b>									
Dissolved Oxygen	----	0.01	mg/L	----	1.63	3.22	2.27	2.51	
Dissolved Oxygen - % Saturation	----	0.1	% saturation	----	17.6	34.2	23.6	28.8	
<b>EP035SF: Total Phenol by Segmented Flow Analyser</b>									
Phenols (Total)	----	0.05	mg/L	----	<0.05	<0.05	<0.05	<0.05	
<b>FWI-EN/001: Groundwater Sampling - Depth</b>									
Depth	----	0.01	m	----	1.03	0.29	0.52	0.62	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 4A	MD 4B	MD 4C	MD 6A	MD 6B
Sampling date / time				03-Nov-2022 10:55	03-Nov-2022 11:03	03-Nov-2022 11:13	03-Nov-2022 12:13	03-Nov-2022 12:15	
Compound	CAS Number	LOR	Unit	EW2205015-006	EW2205015-007	EW2205015-008	EW2205015-009	EW2205015-010	
				Result	Result	Result	Result	Result	
<b>EA005FD: Field pH</b>									
pH	----	0.1	pH Unit	7.3	7.0	7.1	7.8	7.0	
<b>EA010FD: Field Conductivity</b>									
Electrical Conductivity (Non Compensated)	----	1	µS/cm	630	2800	9120	1510	1590	
<b>EA020FD: Field Salinity</b>									
Salinity	----	0.2	g/L	0.38	1.78	6.22	0.89	0.94	
<b>EA116: Temperature</b>									
Temperature	----	0.5	°C	16.2	16.0	16.5	18.4	18.0	
<b>ED037P: Alkalinity by PC Titrator</b>									
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	394	958	901	759	732	
Total Alkalinity as CaCO3	----	1	mg/L	394	958	901	759	732	
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	29	311	<10	116	
<b>ED045G: Chloride by Discrete Analyser</b>									
Chloride	16887-00-6	1	mg/L	33	565	3030	107	126	
<b>ED093F: Dissolved Major Cations</b>									
Calcium	7440-70-2	1	mg/L	53	104	131	37	164	
Magnesium	7439-95-4	1	mg/L	39	70	180	18	56	
Sodium	7440-23-5	1	mg/L	46	373	1780	273	120	
Potassium	7440-09-7	1	mg/L	13	74	105	129	42	
<b>EG020F: Dissolved Metals by ICP-MS</b>									
Manganese	7439-96-5	0.001	mg/L	0.048	0.031	0.036	0.036	0.122	
Iron	7439-89-6	0.05	mg/L	0.31	0.51	0.44	0.53	0.24	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	0.6	0.5	1.0	1.9	0.5	
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L	0.29	42.9	17.5	0.04	16.4	
<b>EK057G: Nitrite as N by Discrete Analyser</b>									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.10	<0.01	
<b>EK058G: Nitrate as N by Discrete Analyser</b>									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	<0.01	0.88	<0.01	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 4A	MD 4B	MD 4C	MD 6A	MD 6B
Sampling date / time				03-Nov-2022 10:55	03-Nov-2022 11:03	03-Nov-2022 11:13	03-Nov-2022 12:13	03-Nov-2022 12:15	
Compound	CAS Number	LOR	Unit	EW2205015-006	EW2205015-007	EW2205015-008	EW2205015-009	EW2205015-010	
				Result	Result	Result	Result	Result	
<b>EPK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>									
Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	<0.01	0.88	<0.01	
<b>EN055: Ionic Balance</b>									
∅ Total Anions	----	0.01	meq/L	8.80	35.7	110	18.2	20.6	
∅ Total Cations	----	0.01	meq/L	----	32.1	----	----	----	
∅ Total Cations	----	0.01	meq/L	8.19	----	101	18.5	19.1	
∅ Ionic Balance	----	0.01	%	----	5.26	----	----	----	
∅ Ionic Balance	----	0.01	%	3.62	----	4.01	0.87	3.80	
<b>EP002: Dissolved Organic Carbon (DOC)</b>									
Dissolved Organic Carbon	----	1	mg/L	24	53	44	90	41	
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L	23	56	48	89	40	
<b>EP025FD: Field Dissolved Oxygen</b>									
Dissolved Oxygen	----	0.01	mg/L	1.95	2.53	2.69	2.49	1.93	
Dissolved Oxygen - % Saturation	----	0.1	% saturation	19.6	25.7	28.3	26.3	20.1	
<b>EP035SF: Total Phenol by Segmented Flow Analyser</b>									
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
<b>FWI-EN/001: Groundwater Sampling - Depth</b>									
Depth	----	0.01	m	1.79	0.95	0.96	0.97	1.03	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 6C	MD 9A	MD 9B	MD 9C	MD 10A
Sampling date / time				03-Nov-2022 12:28	03-Nov-2022 10:25	03-Nov-2022 10:35	03-Nov-2022 10:45	03-Nov-2022 09:55	
Compound	CAS Number	LOR	Unit	EW2205015-011	EW2205015-012	EW2205015-013	EW2205015-014	EW2205015-015	
				Result	Result	Result	Result	Result	
<b>EA005FD: Field pH</b>									
pH	----	0.1	pH Unit	7.4	6.8	6.8	6.8	6.4	
<b>EA010FD: Field Conductivity</b>									
Electrical Conductivity (Non Compensated)	----	1	µS/cm	19600	896	2700	2770	21700	
<b>EA020FD: Field Salinity</b>									
Salinity	----	0.2	g/L	13.63	0.53	1.68	1.70	15.05	
<b>EA116: Temperature</b>									
Temperature	----	0.5	°C	18.3	16.4	16.7	17.6	18.6	
<b>ED037P: Alkalinity by PC Titrator</b>									
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	413	274	998	1020	359	
Total Alkalinity as CaCO3	----	1	mg/L	413	274	998	1020	359	
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	821	<100	<10	<10	1360	
<b>ED045G: Chloride by Discrete Analyser</b>									
Chloride	16887-00-6	1	mg/L	6980	201	511	487	7820	
<b>ED093F: Dissolved Major Cations</b>									
Calcium	7440-70-2	1	mg/L	320	14	153	139	766	
Magnesium	7439-95-4	1	mg/L	451	15	72	68	688	
Sodium	7440-23-5	1	mg/L	3660	222	298	288	3310	
Potassium	7440-09-7	1	mg/L	120	14	85	92	108	
<b>EG020F: Dissolved Metals by ICP-MS</b>									
Manganese	7439-96-5	0.001	mg/L	0.067	0.017	0.213	0.188	1.42	
Iron	7439-89-6	0.05	mg/L	17.3	0.13	3.03	3.54	0.16	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	0.4	0.2	0.6	0.5	0.5	
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L	13.7	<0.10	48.0	69.5	0.17	
<b>EK057G: Nitrite as N by Discrete Analyser</b>									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<1.00	<0.01	<0.01	<0.01	
<b>EK058G: Nitrate as N by Discrete Analyser</b>									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<1.00	0.04	0.03	0.05	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 6C	MD 9A	MD 9B	MD 9C	MD 10A
Sampling date / time				03-Nov-2022 12:28	03-Nov-2022 10:25	03-Nov-2022 10:35	03-Nov-2022 10:45	03-Nov-2022 09:55	
Compound	CAS Number	LOR	Unit	EW2205015-011	EW2205015-012	EW2205015-013	EW2205015-014	EW2205015-015	
				Result	Result	Result	Result	Result	
<b>EPK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>									
Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<1.00	0.04	0.03	0.05	
<b>EN055: Ionic Balance</b>									
∅ Total Anions	----	0.01	meq/L	222	11.1	34.4	34.1	256	
∅ Total Cations	----	0.01	meq/L	----	----	----	32.4	----	
∅ Total Cations	----	0.01	meq/L	215	11.9	28.7	----	242	
∅ Ionic Balance	----	0.01	%	----	----	----	2.65	----	
∅ Ionic Balance	----	0.01	%	1.57	3.48	8.97	----	2.91	
<b>EP002: Dissolved Organic Carbon (DOC)</b>									
Dissolved Organic Carbon	----	1	mg/L	18	246	60	63	24	
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L	17	239	59	63	28	
<b>EP025FD: Field Dissolved Oxygen</b>									
Dissolved Oxygen	----	0.01	mg/L	2.09	2.24	1.00	1.06	3.07	
Dissolved Oxygen - % Saturation	----	0.1	% saturation	23.6	22.8	10.3	11.1	35.6	
<b>EP035SF: Total Phenol by Segmented Flow Analyser</b>									
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
<b>FWI-EN/001: Groundwater Sampling - Depth</b>									
Depth	----	0.01	m	1.23	0.34	0.60	0.56	0.45	





## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 10B	Rocklow Down	Rocklow Middle	Rocklow Up	BLANK
Sampling date / time				03-Nov-2022 10:00	03-Nov-2022 08:55	03-Nov-2022 09:30	03-Nov-2022 09:15	03-Nov-2022 08:45	
Compound	CAS Number	LOR	Unit	EW2205015-016	EW2205015-017	EW2205015-018	EW2205015-019	EW2205015-020	
				Result	Result	Result	Result	Result	
<b>EA005FD: Field pH</b>									
pH	----	0.1	pH Unit	6.8	7.1	7.2	7.2	----	
<b>EA010FD: Field Conductivity</b>									
Electrical Conductivity (Non Compensated)	----	1	µS/cm	1380	2770	2130	347	----	
<b>EA020FD: Field Salinity</b>									
Salinity	----	0.2	g/L	0.78	1.79	1.34	0.21	----	
<b>EA116: Temperature</b>									
Temperature	----	0.5	°C	19.4	15.4	15.9	14.2	----	
<b>ED037P: Alkalinity by PC Titrator</b>									
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	595	96	94	77	----	
Total Alkalinity as CaCO3	----	1	mg/L	595	96	94	77	----	
<b>ED041G: Sulfate (Turbidimetric) as SO4 2- by DA</b>									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	163	127	20	----	
<b>ED045G: Chloride by Discrete Analyser</b>									
Chloride	16887-00-6	1	mg/L	123	941	701	75	----	
<b>ED093F: Dissolved Major Cations</b>									
Calcium	7440-70-2	1	mg/L	60	----	----	----	----	
Magnesium	7439-95-4	1	mg/L	28	----	----	----	----	
Sodium	7440-23-5	1	mg/L	88	----	----	----	----	
Potassium	7440-09-7	1	mg/L	60	----	----	----	----	
<b>ED093T: Total Major Cations</b>									
Calcium	7440-70-2	1	mg/L	----	34	31	14	----	
Magnesium	7439-95-4	1	mg/L	----	67	50	9	----	
Sodium	7440-23-5	1	mg/L	----	530	391	55	----	
Potassium	7440-09-7	1	mg/L	----	21	15	3	----	
<b>EG020F: Dissolved Metals by ICP-MS</b>									
Manganese	7439-96-5	0.001	mg/L	0.278	----	----	----	<0.001	
Iron	7439-89-6	0.05	mg/L	0.58	----	----	----	<0.05	
<b>EG020T: Total Metals by ICP-MS</b>									
Manganese	7439-96-5	0.001	mg/L	----	0.045	0.051	0.042	----	
Iron	7439-89-6	0.05	mg/L	----	1.65	1.89	1.88	----	



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 10B	Rocklow Down	Rocklow Middle	Rocklow Up	BLANK
Sampling date / time				03-Nov-2022 10:00	03-Nov-2022 08:55	03-Nov-2022 09:30	03-Nov-2022 09:15	03-Nov-2022 08:45	
Compound	CAS Number	LOR	Unit	EW2205015-016	EW2205015-017	EW2205015-018	EW2205015-019	EW2205015-020	
				Result	Result	Result	Result	Result	
<b>EK040P: Fluoride by PC Titrator</b>									
Fluoride	16984-48-8	0.1	mg/L	0.9	0.2	0.2	0.1	----	
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L	60.2	0.13	0.12	0.04	----	
<b>EK057G: Nitrite as N by Discrete Analyser</b>									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----	
<b>EK058G: Nitrate as N by Discrete Analyser</b>									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.38	0.42	<0.01	----	
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser</b>									
Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.38	0.42	<0.01	----	
<b>EN055: Ionic Balance</b>									
∅ Total Anions	----	0.01	meq/L	15.4	----	----	----	----	
∅ Total Cations	----	0.01	meq/L	15.0	----	----	----	----	
∅ Ionic Balance	----	0.01	%	1.35	----	----	----	----	
<b>EP002: Dissolved Organic Carbon (DOC)</b>									
Dissolved Organic Carbon	----	1	mg/L	47	7	8	7	<1	
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L	47	8	8	8	----	
<b>EP025FD: Field Dissolved Oxygen</b>									
Dissolved Oxygen	----	0.01	mg/L	0.66	7.14	7.51	9.13	----	
Dissolved Oxygen - % Saturation	----	0.1	% saturation	0.7	72.1	76.3	89.4	----	
<b>EP035SF: Total Phenol by Segmented Flow Analyser</b>									
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	----	
<b>FWI-EN/001: Groundwater Sampling - Depth</b>									
Depth	----	0.01	m	0.63	----	----	----	----	



### ***Inter-Laboratory Testing***

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

(WATER) EP002: Dissolved Organic Carbon (DOC)

(WATER) EP005: Total Organic Carbon (TOC)

(WATER) EK058G: Nitrate as N by Discrete Analyser

(WATER) EK057G: Nitrite as N by Discrete Analyser

(WATER) EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser

(WATER) EK055G: Ammonia as N by Discrete Analyser

(WATER) EG020F: Dissolved Metals by ICP-MS

(WATER) ED093F: Dissolved Major Cations

(WATER) EN055: Ionic Balance

(WATER) ED045G: Chloride by Discrete Analyser

(WATER) ED037P: Alkalinity by PC Titrator

(WATER) EK040P: Fluoride by PC Titrator

(WATER) ED041G: Sulfate (Turbidimetric) as SO<sub>4</sub><sup>2-</sup> by DA

(WATER) EP035SF: Total Phenol by Segmented Flow Analyser

(WATER) EG020T: Total Metals by ICP-MS

(WATER) ED093T: Total Major Cations