



CERTIFICATE OF ANALYSIS

Work Order : **EW2405444**
Client : **KIAMA COUNCIL**
Contact : Guy Stearn
Address : 11 MANNING STREET
KIAMA NSW, AUSTRALIA 2533
Telephone : ----
Project : Minnamurra Landfill
Order number : P023779
C-O-C number : ----
Sampler : Michael Santos, Robert DaLio
Site : ----
Quote number : EW2023KIACOU0002 V2
No. of samples received : 31
No. of samples analysed : 31

Page : 1 of 14
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 : 28-Nov-2024 16:03
Date Analysis Commenced : 28-Nov-2024
Issue Date : 05-Dec-2024 11:26



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>
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Robert DaLio	Sampler	Laboratory - Wollongong, 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.

- ED041G: LOR raised for Sulfate on various samples 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, SiO₂ and Fluoride to the Anions.
- EG020A: LORs have been raised for some samples due to matrix interference (High sample salinity)
- 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 Via High Flow and Bailer 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 EP025FD and EN67 PK.
- All field analysis performed by ALS Wollongong were completed at the time of sampling.
- Sampling completed by ALS Wollongong in accordance with in-house sampling method EN/67.4 Lakes and Reservoirs
- 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.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 1B	MD 2A	MD 2B	MD 2C	MD 4A
Sampling date / time				28-Nov-2024 09:02	28-Nov-2024 14:43	28-Nov-2024 14:35	28-Nov-2024 14:25	28-Nov-2024 12:50	
Compound	CAS Number	LOR	Unit	EW2405444-001	EW2405444-002	EW2405444-003	EW2405444-004	EW2405444-005	
				Result	Result	Result	Result	Result	
EA005FD: Field pH									
pH	----	0.1	pH Unit	7.6	7.2	7.0	7.4	7.0	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.68	7.58	7.35	7.39	7.36	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	617	1820	1790	20100	2150	
EA116: Temperature									
Temperature	----	0.5	°C	21.4	19.8	19.7	20.3	18.4	
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	174	736	718	413	818	
Total Alkalinity as CaCO3	----	1	mg/L	174	736	718	413	818	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	43	55	41	754	58	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	64	170	188	6460	251	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	49	144	162	330	152	
Magnesium	7439-95-4	1	mg/L	8	57	52	424	71	
Sodium	7440-23-5	1	mg/L	47	118	122	3430	182	
Potassium	7440-09-7	1	mg/L	10	82	40	114	55	
EG020F: Dissolved Metals by ICP-MS									
Manganese	7439-96-5	0.001	mg/L	0.044	0.089	0.146	0.066	0.037	
Iron	7439-89-6	0.05	mg/L	0.39	0.21	0.40	16.3	0.14	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.2	0.6	0.4	0.4	0.5	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	7.72	9.47	19.5	10.5	12.7	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 1B	MD 2A	MD 2B	MD 2C	MD 4A
Sampling date / time				28-Nov-2024 09:02	28-Nov-2024 14:43	28-Nov-2024 14:35	28-Nov-2024 14:25	28-Nov-2024 12:50	
Compound	CAS Number	LOR	Unit	EW2405444-001	EW2405444-002	EW2405444-003	EW2405444-004	EW2405444-005	
				Result	Result	Result	Result	Result	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.16	2.17	0.25	<0.01	<0.01	
Nitrate as NO3	14797-55-8	0.05	mg/L	0.71	9.61	1.11	<0.05	<0.05	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	6.18	20.6	20.5	206	24.6	
∅ Total Cations	----	0.01	meq/L	5.96	----	----	----	----	
∅ Total Cations	----	0.01	meq/L	----	19.1	18.7	203	22.8	
∅ Ionic Balance	----	0.01	%	1.86	----	----	----	----	
∅ Ionic Balance	----	0.01	%	----	3.87	4.62	0.66	3.97	
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L	6	34	36	16	33	
EP025FD: Field Dissolved Oxygen									
Dissolved Oxygen	----	0.01	mg/L	2.10	2.23	1.16	2.29	1.63	
EP035SF: Total Phenol by Segmented Flow Analyser									
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
QWI-EN 67.11 Sampling of Groundwaters									
Depth	----	0.01	m	1.52	1.21	1.25	1.30	1.70	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 4B	MD 4C	MD 6A	MD 6B	MD 6C
Sampling date / time				28-Nov-2024 12:28	28-Nov-2024 11:50	28-Nov-2024 13:50	28-Nov-2024 13:35	28-Nov-2024 13:20	
Compound	CAS Number	LOR	Unit	EW2405444-006	EW2405444-007	EW2405444-008	EW2405444-009	EW2405444-010	
				Result	Result	Result	Result	Result	
EA005FD: Field pH									
pH	----	0.1	pH Unit	7.2	7.0	7.0	7.3	7.2	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.59	7.46	7.42	7.64	7.56	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	3970	28800	15000	18700	37900	
EA116: Temperature									
Temperature	----	0.5	°C	18.3	18.3	18.7	18.5	17.9	
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	938	863	768	587	505	
Total Alkalinity as CaCO3	----	1	mg/L	938	863	768	587	505	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	1230	525	625	1750	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	755	8620	4750	5720	11400	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	104	329	296	307	376	
Magnesium	7439-95-4	1	mg/L	83	589	325	402	794	
Sodium	7440-23-5	1	mg/L	565	4600	2490	2920	6250	
Potassium	7440-09-7	1	mg/L	82	216	132	137	262	
EG020F: Dissolved Metals by ICP-MS									
Manganese	7439-96-5	0.001	mg/L	0.035	0.128	0.097	0.070	0.115	
Iron	7439-89-6	0.05	mg/L	0.62	1.26	0.46	0.63	1.06	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.6	0.8	0.8	0.6	0.7	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	42.8	12.3	6.95	10.7	2.71	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 4B	MD 4C	MD 6A	MD 6B	MD 6C
Sampling date / time					28-Nov-2024 12:28	28-Nov-2024 11:50	28-Nov-2024 13:50	28-Nov-2024 13:35	28-Nov-2024 13:20
Compound	CAS Number	LOR	Unit		EW2405444-006	EW2405444-007	EW2405444-008	EW2405444-009	EW2405444-010
					Result	Result	Result	Result	Result
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	<0.01	0.68	0.49	<0.01
Nitrate as NO3	14797-55-8	0.05	mg/L		<0.05	<0.05	3.01	2.17	<0.05
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L		40.0	286	160	186	368
∅ Total Cations	----	0.01	meq/L		38.7	270	153	179	363
∅ Ionic Balance	----	0.01	%		1.71	2.79	2.25	1.96	0.74
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L		48	36	42	24	17
EP025FD: Field Dissolved Oxygen									
Dissolved Oxygen	----	0.01	mg/L		0.99	2.01	1.47	4.17	2.62
EP035SF: Total Phenol by Segmented Flow Analyser									
Phenols (Total)	----	0.05	mg/L		<0.05	<0.05	<0.05	<0.05	<0.05
QWI-EN 67.11 Sampling of Groundwaters									
Depth	----	0.01	m		1.05	1.03	0.60	0.55	0.61



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 9A	MD 9B	MD 9C	MD 10A	MD 10B
Sampling date / time				28-Nov-2024 11:22	28-Nov-2024 11:13	28-Nov-2024 10:50	28-Nov-2024 10:06	28-Nov-2024 09:50	
Compound	CAS Number	LOR	Unit	EW2405444-011	EW2405444-012	EW2405444-013	EW2405444-014	EW2405444-015	
				Result	Result	Result	Result	Result	
EA005FD: Field pH									
pH	----	0.1	pH Unit	6.9	7.0	7.1	6.8	7.1	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.23	7.41	7.46	7.24	7.55	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	990	2620	2940	32800	1290	
EA116: Temperature									
Temperature	----	0.5	°C	19.6	19.2	19.7	22.0	21.2	
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	408	1140	1010	337	512	
Total Alkalinity as CaCO3	----	1	mg/L	408	1140	1010	337	512	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<100	<10	<10	1680	<50	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	98	262	397	10100	110	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	30	144	129	511	54	
Magnesium	7439-95-4	1	mg/L	25	64	61	838	23	
Sodium	7440-23-5	1	mg/L	161	258	211	4910	84	
Potassium	7440-09-7	1	mg/L	20	73	105	165	50	
EG020F: Dissolved Metals by ICP-MS									
Manganese	7439-96-5	0.001	mg/L	0.054	0.193	0.163	0.177	0.242	
Iron	7439-89-6	0.05	mg/L	0.27	3.41	6.49	<0.10	0.43	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.2	0.6	0.5	0.4	0.9	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	7.56	36.5	85.4	2.37	47.8	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MD 9A	MD 9B	MD 9C	MD 10A	MD 10B
Sampling date / time				28-Nov-2024 11:22	28-Nov-2024 11:13	28-Nov-2024 10:50	28-Nov-2024 10:06	28-Nov-2024 09:50	
Compound	CAS Number	LOR	Unit	EW2405444-011	EW2405444-012	EW2405444-013	EW2405444-014	EW2405444-015	
				Result	Result	Result	Result	Result	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.10	0.24	<0.01	0.03	<0.01	
Nitrate as NO3	14797-55-8	0.05	mg/L	<0.10	1.06	<0.05	0.13	<0.05	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	10.9	30.2	31.4	327	13.3	
∅ Total Cations	----	0.01	meq/L	----	----	29.4	----	12.9	
∅ Total Cations	----	0.01	meq/L	11.1	25.5	----	312	----	
∅ Ionic Balance	----	0.01	%	----	----	3.25	----	1.55	
∅ Ionic Balance	----	0.01	%	0.70	8.30	----	2.25	----	
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L	120	42	66	37	42	
EP025FD: Field Dissolved Oxygen									
Dissolved Oxygen	----	0.01	mg/L	0.57	1.73	1.43	1.33	1.15	
EP035SF: Total Phenol by Segmented Flow Analyser									
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
QWI-EN 67.11 Sampling of Groundwaters									
Depth	----	0.01	m	0.52	0.71	0.74	0.71	0.67	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	EW 1	EW 2	EW 3	EW 4	PMW 1A
Sampling date / time				28-Nov-2024 10:12	28-Nov-2024 10:33	28-Nov-2024 10:43	28-Nov-2024 00:00	28-Nov-2024 12:00	
Compound	CAS Number	LOR	Unit	EW2405444-016	EW2405444-017	EW2405444-018	EW2405444-019	EW2405444-020	
				Result	Result	Result	Result	Result	
EA005FD: Field pH									
pH	----	0.1	pH Unit	7.4	7.0	7.0	----	6.1	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.76	7.48	7.54	----	6.81	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	2270	2270	2330	----	1440	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	5.46	60.9	37.1	----	2.19	
EN67 PK: Field Tests									
Field Observations	----	0.01	--	----	----	----	No Sample / Pump not flowing	----	
QWI-EN 67.11 Sampling of Groundwaters									
Depth	----	0.01	m	----	----	----	----	1.05	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	PMW 2	PMW 3	PMW 4	PMW 5	PMW 6
Sampling date / time				28-Nov-2024 12:59	28-Nov-2024 12:30	28-Nov-2024 11:30	28-Nov-2024 09:25	28-Nov-2024 00:00	
Compound	CAS Number	LOR	Unit	EW2405444-021	EW2405444-022	EW2405444-023	EW2405444-024	EW2405444-025	
				Result	Result	Result	Result	Result	
EA005FD: Field pH									
pH	----	0.1	pH Unit	6.7	6.7	6.7	6.7	6.6	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.31	7.32	7.32	7.42	7.34	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	1100	1920	2380	2070	1430	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	4.00	12.7	42.0	42.7	0.79	
QWI-EN 67.11 Sampling of Groundwaters									
Depth	----	0.01	m	1.79	1.14	1.42	1.60	1.10	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Rocklow Up	Rocklow Middle	Rocklow Down	Dam SW	Dam NW
Sampling date / time				28-Nov-2024 00:00	28-Nov-2024 00:00	28-Nov-2024 00:00	28-Nov-2024 00:00	28-Nov-2024 00:00	
Compound	CAS Number	LOR	Unit	EW2405444-026	EW2405444-027	EW2405444-028	EW2405444-029	EW2405444-030	
				Result	Result	Result	Result	Result	
EA005FD: Field pH									
pH	----	0.1	pH Unit	7.4	7.3	7.7	7.4	7.4	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.68	7.47	7.57	7.58	7.62	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	7670	50900	52300	633	601	
EA116: Temperature									
Temperature	----	0.5	°C	24.0	22.6	21.4	25.4	24.4	
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	151	161	142	181	217	
Total Alkalinity as CaCO3	----	1	mg/L	151	161	142	181	217	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	295	2330	2470	8	<10	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	2450	14800	15600	81	64	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	68	493	511	47	42	
Magnesium	7439-95-4	1	mg/L	161	1170	1240	11	17	
Sodium	7440-23-5	1	mg/L	1320	9850	10300	26	33	
Potassium	7440-09-7	1	mg/L	52	370	384	24	36	
EG020T: Total Metals by ICP-MS									
Manganese	7439-96-5	0.001	mg/L	0.132	0.054	0.027	0.680	0.343	
Iron	7439-89-6	0.05	mg/L	0.35	0.13	<0.10	1.35	1.64	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.4	0.9	0.9	0.3	0.1	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.02	0.24	0.23	13.1	1.37	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Rocklow Up	Rocklow Middle	Rocklow Down	Dam SW	Dam NW
Sampling date / time				28-Nov-2024 00:00	28-Nov-2024 00:00	28-Nov-2024 00:00	28-Nov-2024 00:00	28-Nov-2024 00:00	
Compound	CAS Number	LOR	Unit	EW2405444-026	EW2405444-027	EW2405444-028	EW2405444-029	EW2405444-030	
				Result	Result	Result	Result	Result	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.04	0.01	<0.01	<0.01	
Nitrate as NO3	14797-55-8	0.05	mg/L	<0.05	0.18	<0.05	<0.05	<0.05	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	78.3	469	494	6.07	6.14	
∅ Total Cations	----	0.01	meq/L	----	----	----	5.92	----	
∅ Total Cations	----	0.01	meq/L	75.4	559	585	----	5.85	
∅ Ionic Balance	----	0.01	%	----	----	----	1.23	----	
∅ Ionic Balance	----	0.01	%	1.87	8.71	8.44	----	2.42	
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L	10	6	<1	42	24	
EP025FD: Field Dissolved Oxygen									
Dissolved Oxygen	----	0.01	mg/L	5.31	4.67	5.67	1.93	2.60	
EP035SF: Total Phenol by Segmented Flow Analyser									
Phenols (Total)	----	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Dam SE	----	----	----	----
Sampling date / time				28-Nov-2024 00:00	----	----	----	----	
Compound	CAS Number	LOR	Unit	EW2405444-031	-----	-----	-----	-----	
				Result	---	---	---	---	
EA005FD: Field pH									
pH	----	0.1	pH Unit	6.9	----	----	----	----	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.35	----	----	----	----	
EA010FD: Field Conductivity									
Conductivity @ 25oC	----	1	µS/cm	645	----	----	----	----	
EA116: Temperature									
Temperature	----	0.5	°C	22.1	----	----	----	----	
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	----	----	----	----	
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	----	----	----	----	
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	316	----	----	----	----	
Total Alkalinity as CaCO3	----	1	mg/L	316	----	----	----	----	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	----	----	----	----	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	30	----	----	----	----	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	69	----	----	----	----	
Magnesium	7439-95-4	1	mg/L	22	----	----	----	----	
Sodium	7440-23-5	1	mg/L	33	----	----	----	----	
Potassium	7440-09-7	1	mg/L	13	----	----	----	----	
EG020T: Total Metals by ICP-MS									
Manganese	7439-96-5	0.001	mg/L	1.64	----	----	----	----	
Iron	7439-89-6	0.05	mg/L	20.5	----	----	----	----	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.2	----	----	----	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.45	----	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Dam SE	----	----	----	----
Sampling date / time				28-Nov-2024 00:00	----	----	----	----	
Compound	CAS Number	LOR	Unit	EW2405444-031	-----	-----	-----	-----	
				Result	----	----	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	----	----	----	----	
Nitrate as NO3	14797-55-8	0.05	mg/L	<0.05	----	----	----	----	
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L	7.16	----	----	----	----	
∅ Total Cations	----	0.01	meq/L	7.02	----	----	----	----	
∅ Ionic Balance	----	0.01	%	0.97	----	----	----	----	
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L	30	----	----	----	----	
EP025FD: Field Dissolved Oxygen									
Dissolved Oxygen	----	0.01	mg/L	2.13	----	----	----	----	
EP035SF: Total Phenol by Segmented Flow Analyser									
Phenols (Total)	----	0.05	mg/L	<0.05	----	----	----	----	

Inter-Laboratory Testing

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

- (WATER) EA005P: pH by PC Titrator
- (WATER) EP005: Total Organic Carbon (TOC)
- (WATER) EP035SF: Total Phenol by Segmented Flow Analyser
- (WATER) EK055G: Ammonia as N by Discrete Analyser
- (WATER) EG020F: Dissolved Metals by ICP-MS
- (WATER) EN055: Ionic Balance
- (WATER) ED045G: Chloride by Discrete Analyser
- (WATER) ED041G: Sulfate (Turbidimetric) as SO4 2- by DA
- (WATER) EK040P: Fluoride by PC Titrator
- (WATER) ED037P: Alkalinity by PC Titrator
- (WATER) ED093F: Dissolved Major Cations
- (WATER) EK058G: Nitrate as N by Discrete Analyser
- (WATER) EG020T: Total Metals by ICP-MS