

## QUALITY CONTROL REPORT

<b>Work Order</b>	<b>: EM2018692</b>	<b>Page</b>	<b>: 1 of 8</b>
<b>Client</b>	<b>: Dept for Environment &amp; Water</b>	<b>Laboratory</b>	<b>: Environmental Division Melbourne</b>
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<b>Project</b>	<b>: HCHB</b>	<b>Date Samples Received</b>	<b>: 22-Oct-2020</b>
<b>Order number</b>	<b>: ----</b>	<b>Date Analysis Commenced</b>	<b>: 22-Oct-2020</b>
<b>C-O-C number</b>	<b>: ----</b>	<b>Issue Date</b>	<b>: 02-Nov-2020</b>
<b>Sampler</b>	<b>: JOSHUA CASTLE</b>		
<b>Site</b>	<b>: ----</b>		
<b>Quote number</b>	<b>: AD/052/20 V2</b>		
<b>No. of samples received</b>	<b>: 19</b>		
<b>No. of samples analysed</b>	<b>: 19</b>		



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. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

### 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	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC
Samantha Smith	Laboratory Coordinator	WRG Subcontracting, Springvale, VIC



## 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

Key :  
 Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot  
 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  
 RPD = Relative Percentage Difference  
 # = Indicates failed QC

## Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 3329121)</b>									
EM2018677-005	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	13100	13800	5.56	0% - 20%
EM2018692-011	Long Point	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	44200	45900	3.74	0% - 20%
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 3329819)</b>									
EM2018666-007	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	1780	1810	1.61	0% - 20%
EM2018679-012	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	2900	3060	5.57	0% - 20%
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 3329820)</b>									
EM2018692-003	South Policeman Point/Seagull Island	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	83500	90800	8.42	0% - 20%
EM2018692-019	McGrath Flat North	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	84000	86000	2.38	0% - 20%
<b>EA045: Turbidity (QC Lot: 3328480)</b>									
EM2018691-002	Anonymous	EA045: Turbidity	----	0.1	NTU	0.1	0.1	0.00	No Limit
EM2018692-009	DS Tauwitschere	EA045: Turbidity	----	0.1	NTU	18.7	18.5	1.08	0% - 20%
<b>EA045: Turbidity (QC Lot: 3328481)</b>									
EM2018709-002	Anonymous	EA045: Turbidity	----	0.1	NTU	7.5	7.5	0.00	0% - 20%
<b>EA045: Turbidity (QC Lot: 3331293)</b>									
EM2018692-016	Morella Creek @ gauge	EA045: Turbidity	----	0.1	NTU	12.7	12.8	0.784	0% - 20%
EM2018846-007	Anonymous	EA045: Turbidity	----	0.1	NTU	3200	3220	0.623	0% - 20%
<b>ED037P: Alkalinity by PC Titrator (QC Lot: 3334475)</b>									
EM2018556-005	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	2	<1	74.6	No Limit
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	2	<1	74.6	No Limit
EM2018692-008	US Tauwitschere	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.00	No Limit



Sub-Matrix: <b>WATER</b>				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
<b>ED037P: Alkalinity by PC Titrator (QC Lot: 3334475) - continued</b>									
EM2018692-008	US Tauwiche	ED037-P: Bicarbonate Alkalinity as CaCO <sub>3</sub>	71-52-3	1	mg/L	102	102	0.00	0% - 20%
		ED037-P: Total Alkalinity as CaCO <sub>3</sub>	----	1	mg/L	102	102	0.00	0% - 20%
<b>ED037P: Alkalinity by PC Titrator (QC Lot: 3334480)</b>									
EM2018692-018	Tilley Swamp Drain U/S Morella	ED037-P: Hydroxide Alkalinity as CaCO <sub>3</sub>	DMO-210-001	1	mg/L	8	8	0.00	No Limit
		ED037-P: Carbonate Alkalinity as CaCO <sub>3</sub>	3812-32-6	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO <sub>3</sub>	71-52-3	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Total Alkalinity as CaCO <sub>3</sub>	----	1	mg/L	453	458	1.01	0% - 20%
EM2018889-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO <sub>3</sub>	DMO-210-001	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Carbonate Alkalinity as CaCO <sub>3</sub>	3812-32-6	1	mg/L	<1	<1	0.00	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO <sub>3</sub>	71-52-3	1	mg/L	132	133	0.00	0% - 20%
		ED037-P: Total Alkalinity as CaCO <sub>3</sub>	----	1	mg/L	132	133	0.00	0% - 20%
<b>ED045G: Chloride by Discrete Analyser (QC Lot: 3324234)</b>									
EM2018692-008	US Tauwiche	ED045G: Chloride	16887-00-6	1	mg/L	206	215	4.01	0% - 20%
EM2018688-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	2780	2900	4.17	0% - 20%
<b>ED045G: Chloride by Discrete Analyser (QC Lot: 3324238)</b>									
EM2018693-003	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	505	520	3.11	0% - 20%
EM2018694-005	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	753	752	0.00	0% - 20%
<b>ED045G: Chloride by Discrete Analyser (QC Lot: 3329212)</b>									
EM2018555-004	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	628	631	0.433	0% - 20%
EM2018692-017	3.2km south of Salt Creek (land)	ED045G: Chloride	16887-00-6	1	mg/L	45300	44000	3.07	0% - 20%
<b>EG052G: Silica by Discrete Analyser (QC Lot: 3324236)</b>									
EM2018692-001	Stony Well	EG052G: Reactive Silica	----	0.05	mg/L	0.35	0.31	11.2	No Limit
EM2018692-011	Long Point	EG052G: Reactive Silica	----	0.05	mg/L	0.88	0.88	0.00	0% - 50%
<b>EG052G: Silica by Discrete Analyser (QC Lot: 3329214)</b>									
EM2018692-017	3.2km south of Salt Creek (land)	EG052G: Reactive Silica	----	0.05	mg/L	0.26	0.27	3.84	No Limit
<b>EK055G-SW: Ammonia as N by Discrete Analyser in Sea Water (QC Lot: 3327396)</b>									
EM2018692-001	Stony Well	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	<0.02	0.00	No Limit
EM2018692-010	Mark Point	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	0.03	0.03	0.00	No Limit
<b>EK055G-SW: Ammonia as N by Discrete Analyser in Sea Water (QC Lot: 3331419)</b>									
EM2018692-016	Morella Creek @ gauge	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	0.20	0.20	0.00	0% - 50%
<b>EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3324232)</b>									
EM2018692-008	US Tauwiche	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit
EM2018688-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit
<b>EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3324237)</b>									
EM2018692-013	Bonneys	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit

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 Client : Dept for Environment & Water  
 Project : HCHB



Sub-Matrix: <b>WATER</b>				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
<b>EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3324237) - continued</b>									
EM2018694-005	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit
<b>EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3329211)</b>									
EM2018555-004	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit
EM2018692-017	3.2km south of Salt Creek (land)	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3327395)</b>									
EM2018692-001	Stony Well	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.00	No Limit
EM2018692-010	Mark Point	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.00	No Limit
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3331417)</b>									
EB2028102-003	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.04	0.04	0.00	No Limit
EM2018889-002	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.71	0.70	0.00	0% - 20%
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3328643)</b>									
EM2018571-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.3	0.3	0.00	No Limit
EM2018692-007	Murray Mouth	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.0	1.0	0.00	0% - 50%
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3328644)</b>									
EM2018692-014	Parnka Point	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	4.5	4.4	3.75	0% - 20%
EM2018703-006	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	912	880	3.53	0% - 20%
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3332982)</b>									
EB2028102-003	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	<0.1	0.00	No Limit
EM2018775-004	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.8	0.8	0.00	No Limit
<b>EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3328642)</b>									
EM2018571-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	<0.01	0.00	No Limit
EM2018692-007	Murray Mouth	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.08	0.08	0.00	No Limit
<b>EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3332983)</b>									
EB2028102-003	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.44	0.42	3.60	0% - 20%
EM2018726-004	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.34	0.35	3.73	0% - 20%
<b>EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 3324233)</b>									
EM2018692-008	US Tauwichee	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.00	No Limit
EM2018688-001	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.01	<0.01	0.00	No Limit
<b>EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 3329213)</b>									
EM2018692-017	3.2km south of Salt Creek (land)	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.00	No Limit
<b>EP002: Dissolved Organic Carbon (DOC) (QC Lot: 3336193)</b>									
EM2018692-001	Stony Well	EP002: Dissolved Organic Carbon	----	1	mg/L	28	27	0.00	0% - 20%
EM2018692-010	Mark Point	EP002: Dissolved Organic Carbon	----	1	mg/L	12	12	0.00	0% - 50%
<b>EP005: Total Organic Carbon (TOC) (QC Lot: 3336192)</b>									
EM2018692-001	Stony Well	EP005: Total Organic Carbon	----	1	mg/L	35	35	0.00	0% - 20%
EM2018692-010	Mark Point	EP005: Total Organic Carbon	----	1	mg/L	12	12	0.00	0% - 50%



## Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 3329121)								
EA015H: Total Dissolved Solids @180°C	----	10	mg/L	<10	2000 mg/L	99.6	93.7	107
				<10	293 mg/L	101	90.0	110
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 3329819)								
EA015H: Total Dissolved Solids @180°C	----	10	mg/L	<10	2000 mg/L	98.4	93.7	107
				<10	293 mg/L	101	90.0	110
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 3329820)								
EA015H: Total Dissolved Solids @180°C	----	10	mg/L	<10	2000 mg/L	101	93.7	107
				<10	293 mg/L	101	90.0	110
EA045: Turbidity (QCLot: 3328480)								
EA045: Turbidity	----	0.1	NTU	<0.1	40 NTU	102	88.1	110
EA045: Turbidity (QCLot: 3328481)								
EA045: Turbidity	----	0.1	NTU	<0.1	40 NTU	101	88.1	110
EA045: Turbidity (QCLot: 3331293)								
EA045: Turbidity	----	0.1	NTU	<0.1	40 NTU	102	88.1	110
ED037P: Alkalinity by PC Titrator (QCLot: 3334475)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	106	88.0	112
ED037P: Alkalinity by PC Titrator (QCLot: 3334480)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	109	88.0	112
ED045G: Chloride by Discrete Analyser (QCLot: 3324234)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	98.5	85.0	122
				<1	1000 mg/L	102	85.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 3324238)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	97.1	85.0	122
				<1	1000 mg/L	102	85.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 3329212)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	98.3	85.0	122
				<1	1000 mg/L	102	85.0	122
EG052G: Silica by Discrete Analyser (QCLot: 3324236)								
EG052G: Reactive Silica	----	0.05	mg/L	<0.05	5 mg/L	104	78.9	128
EG052G: Silica by Discrete Analyser (QCLot: 3329214)								
EG052G: Reactive Silica	----	0.05	mg/L	<0.05	5 mg/L	95.1	78.9	128
EK055G-SW: Ammonia as N by Discrete Analyser in Sea Water (QCLot: 3327396)								
EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	0.5 mg/L	113	81.1	124





Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
<b>EK055G-SW: Ammonia as N by Discrete Analyser in Sea Water (QCLot: 3331419)</b>								
EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	0.5 mg/L	105	81.1	124
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3324232)</b>								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	102	90.9	112
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3324237)</b>								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	99.7	90.9	112
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3329211)</b>								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	107	90.9	112
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3327395)</b>								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	113	90.0	117
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3331417)</b>								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	112	90.0	117
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3328643)</b>								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	91.1	70.0	117
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3328644)</b>								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	87.3	70.0	117
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3332982)</b>								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	106	70.0	117
<b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3328642)</b>								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	105	71.9	114
<b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3332983)</b>								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	109	71.9	114
<b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3324233)</b>								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	117	92.7	119
<b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3329213)</b>								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	110	92.7	119
<b>EP002: Dissolved Organic Carbon (DOC) (QCLot: 3336193)</b>								
EP002: Dissolved Organic Carbon	----	1	mg/L	<1	100 mg/L	98.4	83.0	115
<b>EP005: Total Organic Carbon (TOC) (QCLot: 3336192)</b>								
EP005: Total Organic Carbon	----	1	mg/L	<1	100 mg/L	97.2	81.2	109
<b>EP008: Chlorophyll (QCLot: 3332252)</b>								
EP008B: Chlorophyll b	----	1	mg/m <sup>3</sup>	<1	----	----	----	----
<b>EP008: Chlorophyll (QCLot: 3332257)</b>								
EP008: Chlorophyll a	----	1	mg/m <sup>3</sup>	<1	20 mg/m <sup>3</sup>	105	70.0	130
EP008: Pheophytin a	----	1	mg/m <sup>3</sup>	<1	----	----	----	----
<b>EP008: Chlorophyll (QCLot: 3333595)</b>								
EP008: Chlorophyll a	----	1	mg/m <sup>3</sup>	<1	20 mg/m <sup>3</sup>	105	70.0	130



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit			LCS	Low	High
EP008: Chlorophyll (QCLot: 3333595) - continued								
EP008: Pheophytin a	----	1	mg/m³	<1	----	----	----	----
EP008: Chlorophyll (QCLot: 3336551)								
EP008B: Chlorophyll b	----	1	mg/m³	<1	----	----	----	----

## Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%) MS	Recovery Limits (%) Low High	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number				
<b>ED045G: Chloride by Discrete Analyser (QCLot: 3324234)</b>							
EM2018688-002	Anonymous	ED045G: Chloride	16887-00-6	400 mg/L	# Not Determined	70.0	130
<b>ED045G: Chloride by Discrete Analyser (QCLot: 3324238)</b>							
EM2018692-015	Villa de Yumpa	ED045G: Chloride	16887-00-6	400 mg/L	# Not Determined	70.0	130
<b>ED045G: Chloride by Discrete Analyser (QCLot: 3329212)</b>							
EM2018555-005	Anonymous	ED045G: Chloride	16887-00-6	400 mg/L	90.6	70.0	130
<b>EG052G: Silica by Discrete Analyser (QCLot: 3324236)</b>							
EM2018692-002	North Jacks Point	EG052G: Reactive Silica	----	5 mg/L	92.3	80.0	120
<b>EG052G: Silica by Discrete Analyser (QCLot: 3329214)</b>							
EM2018692-017	3.2km south of Salt Creek (land)	EG052G: Reactive Silica	----	5 mg/L	89.7	80.0	120
<b>EK055G-SW: Ammonia as N by Discrete Analyser in Sea Water (QCLot: 3327396)</b>							
EM2018692-002	North Jacks Point	EK055G-SW: Ammonia as N	7664-41-7	0.5 mg/L	105	70.0	130
<b>EK055G-SW: Ammonia as N by Discrete Analyser in Sea Water (QCLot: 3331419)</b>							
EM2018692-017	3.2km south of Salt Creek (land)	EK055G-SW: Ammonia as N	7664-41-7	0.5 mg/L	92.2	70.0	130
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3324232)</b>							
EM2018688-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	96.4	80.0	114
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3324237)</b>							
EM2018692-014	Parnka Point	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	98.1	80.0	114
<b>EK057G: Nitrite as N by Discrete Analyser (QCLot: 3329211)</b>							
EM2018692-017	3.2km south of Salt Creek (land)	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	94.3	80.0	114
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3327395)</b>							
EM2018692-002	North Jacks Point	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	77.5	70.0	130

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 Project : HCHB



Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
<b>EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3331417)</b>							
EM2018663-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	85.9	70.0	130
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3328643)</b>							
EM2018572-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	89.3	70.0	130
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3328644)</b>							
EM2018692-015	Villa de Yumpa	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	120	70.0	130
<b>EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3332982)</b>							
EM2018663-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	112	70.0	130
<b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3328642)</b>							
EM2018572-001	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	81.6	70.0	130
<b>EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3332983)</b>							
EM2018663-001	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	# 62.1	70.0	130
<b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3324233)</b>							
EM2018688-002	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	110	79.0	123
<b>EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 3329213)</b>							
EM2018692-017	3.2km south of Salt Creek (land)	EK071G: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	103	79.0	123
<b>EP002: Dissolved Organic Carbon (DOC) (QCLot: 3336193)</b>							
EM2018692-002	North Jacks Point	EP002: Dissolved Organic Carbon	----	100 mg/L	106	75.0	117
<b>EP005: Total Organic Carbon (TOC) (QCLot: 3336192)</b>							
EM2018692-002	North Jacks Point	EP005: Total Organic Carbon	----	100 mg/L	96.9	80.0	114