QUALITY CONTROL REPORT

Work Order	: **EM2203091**	Page	: 1 of 9
Client	: **Dept for Environment & Water**	Laboratory	: Environmental Division Melbourne
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Project	: HCHB - Phase 1	Date Samples Received	: 24-Feb-2022
Order number	: ----	Date Analysis Commenced	: 24-Feb-2022
C-O-C number	: ----	Issue Date	: 09-Mar-2022
Sampler	: ----		
Site	: ----		
Quote number	: AD/052/20 V2		
No. of samples received	: 22		
No. of samples analysed	: 22		

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 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.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
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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.

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	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QC Lot: 4198138)									
EM2203091-001	Murray Mouth	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	0.21	0.20	0.0	0% - 50%
EM2203091-010	Villa de Yumpa	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	<0.02	0.0	No Limit
EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QC Lot: 4198140)									
EM2203091-021	Tilley Swamp Drain Nth outlet	EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	0.04	0.05	0.0	No Limit
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 4197505)									
EM2202928-001	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	11700	11300	3.1	0% - 20%
EM2203005-001	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	11100	11200	0.7	0% - 20%
EM2203080-005	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	8670	8770	1.1	0% - 20%
EM2203091-004	Mark Point	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	1290	1310	1.7	0% - 20%
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 4197508)									
EM2203091-018	1.8km west of Salk Creek	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	118000	121000	2.4	0% - 20%
EM2203286-002	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	5770	5630	2.4	0% - 20%
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QC Lot: 4197738)									
EM2203048-003	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	4830	4780	1.2	0% - 20%
EM2203091-010	Villa de Yumpa	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	93900	93500	0.4	0% - 20%
EM2203179-005	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	6240	6700	7.1	0% - 20%
EM2203179-019	Anonymous	EA015H: Total Dissolved Solids @180°C	----	10	mg/L	5890	5980	1.6	0% - 20%
EA045: Turbidity (QC Lot: 4193816)									
EM2203091-001	Murray Mouth	EA045: Turbidity	----	0.1	NTU	71.9	71.7	0.3	0% - 20%
EM2203091-010	Villa de Yumpa	EA045: Turbidity	----	0.1	NTU	14.6	15.0	2.7	0% - 20%
EA045: Turbidity (QC Lot: 4193817)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA045: Turbidity (QC Lot: 4193817) - continued									
EM2203091-021	Tilley Swamp Drain Nth outlet	EA045: Turbidity	----	0.1	NTU	6.0	6.2	3.7	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 4195031)									
EM2203091-008	McGrath Flat North	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	191	191	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	191	191	0.0	0% - 20%
EM2203079-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	187	175	6.5	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	187	175	6.5	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 4195034)									
EM2203091-018	1.8km west of Salk Creek	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	246	246	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	246	246	0.0	0% - 20%
EM2203109-011	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	1340	1340	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	1340	1340	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4193638)									
EM2203091-009	Parnka Point	ED045G: Chloride	16887-00-6	1	mg/L	33200	36900	10.7	0% - 20%
EM2203091-001	Murray Mouth	ED045G: Chloride	16887-00-6	1	mg/L	568	564	0.7	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4193642)									
EM2203091-021	Tilley Swamp Drain Nth outlet	ED045G: Chloride	16887-00-6	1	mg/L	3170	3100	2.3	0% - 20%
EG052G: Silica by Discrete Analyser (QC Lot: 4193637)									
EM2203091-011	Stony Well	EG052G: Reactive Silica	----	0.05	mg/L	5.80	5.81	0.0	0% - 20%
EM2203091-001	Murray Mouth	EG052G: Reactive Silica	----	0.05	mg/L	0.59	0.57	2.9	0% - 50%
EG052G: Silica by Discrete Analyser (QC Lot: 4193641)									
EM2203091-021	Tilley Swamp Drain Nth outlet	EG052G: Reactive Silica	----	0.05	mg/L	19.3	19.4	0.5	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4193636)									
EM2203091-010	Villa de Yumpa	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EM2203091-001	Murray Mouth	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4193640)									
EM2203091-021	Tilley Swamp Drain Nth outlet	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4198137)									

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4198137) - continued									
EM2203091-008	McGrath Flat North	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EM2203083-003	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.02	0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4198139)									
EM2203091-019	3.2km south of Salt Creek (land)	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EM2203278-007	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.02	0.02	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4194757)									
EM2203080-009	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.4	0.4	0.0	No Limit
EM2203091-008	McGrath Flat North	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.4	1.6	11.5	0% - 50%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4194760)									
EM2203179-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.7	0.7	0.0	No Limit
EM2203091-019	3.2km south of Salt Creek (land)	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	3.6	4.2	13.9	0% - 20%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4198116)									
EM2202942-009	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	294	289	1.8	0% - 20%
EM2203083-004	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.4	0.4	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4194758)									
EM2203091-008	McGrath Flat North	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.76	# 0.59	24.9	0% - 20%
EM2203080-009	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.07	0.07	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4194759)									
EM2203179-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.32	0.32	0.0	0% - 20%
EM2203091-019	3.2km south of Salt Creek (land)	EK067G: Total Phosphorus as P	----	0.01	mg/L	2.08	1.91	8.1	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4198115)									
EM2202942-009	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	359	351	2.4	0% - 20%
EM2203083-004	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.04	0.03	0.0	No Limit
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 4193639)									
EM2203091-010	Villa de Yumpa	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EM2203091-001	Murray Mouth	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 4193643)									
EM2203091-021	Tilley Swamp Drain Nth outlet	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP002: Dissolved Organic Carbon (DOC) (QC Lot: 4193706)									
EM2203091-006	Noonameena	EP002: Dissolved Organic Carbon	----	1	mg/L	17	18	0.0	0% - 50%
EM2203091-019	3.2km south of Salt Creek (land)	EP002: Dissolved Organic Carbon	----	1	mg/L	43	44	2.6	0% - 20%
EP002: Dissolved Organic Carbon (DOC) (QC Lot: 4193709)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP002: Dissolved Organic Carbon (DOC) (QC Lot: 4193709) - continued									
EM2203091-022	Tilley Swamp Drain Watercourse outlet	EP002: Dissolved Organic Carbon	----	1	mg/L	6	7	19.8	No Limit
EP005: Total Organic Carbon (TOC) (QC Lot: 4193707)									
EM2203091-001	Murray Mouth	EP005: Total Organic Carbon	----	1	mg/L	13	14	0.0	No Limit
EM2203091-010	Villa de Yumpa	EP005: Total Organic Carbon	----	1	mg/L	40	40	0.0	0% - 20%
EP005: Total Organic Carbon (TOC) (QC Lot: 4193708)									
EM2203091-021	Tilley Swamp Drain Nth outlet	EP005: Total Organic Carbon	----	1	mg/L	6	7	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (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 Sample (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**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 4198138)								
EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	0.5 mg/L	108	81.1	124
EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 4198140)								
EK055G-SW: Ammonia as N	7664-41-7	0.02	mg/L	<0.02	0.5 mg/L	105	81.1	124
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 4197505)								
EA015H: Total Dissolved Solids @180°C	----	10	mg/L	<10	2000 mg/L	99.1	91.0	110
				<10	2460 mg/L	102	81.7	118
				<10	293 mg/L	106	91.0	110
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 4197508)								
EA015H: Total Dissolved Solids @180°C	----	10	mg/L	<10	2000 mg/L	101	91.0	110
				<10	2460 mg/L	105	81.7	118
EA015: Total Dissolved Solids dried at 180 ± 5 °C (QCLot: 4197738)								
EA015H: Total Dissolved Solids @180°C	----	10	mg/L	<10	2000 mg/L	100	91.0	110
				<10	2460 mg/L	105	81.7	118
				<10	293 mg/L	92.5	91.0	110
EA045: Turbidity (QCLot: 4193816)								
EA045: Turbidity	----	0.1	NTU	<0.1	40 NTU	104	88.1	110
EA045: Turbidity (QCLot: 4193817)								
EA045: Turbidity	----	0.1	NTU	<0.1	40 NTU	104	88.1	110
ED037P: Alkalinity by PC Titrator (QCLot: 4195031)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	105	85.0	116
ED037P: Alkalinity by PC Titrator (QCLot: 4195034)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	104	85.0	116
ED045G: Chloride by Discrete Analyser (QCLot: 4193638)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	103	85.0	115
				<1	1000 mg/L	96.9	85.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4193642)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	10 mg/L	99.3	85.0	115
				<1	1000 mg/L	106	85.0	122
EG052G: Silica by Discrete Analyser (QCLot: 4193637)								
EG052G: Reactive Silica	----	0.05	mg/L	<0.05	5 mg/L	106	78.9	118
EG052G: Silica by Discrete Analyser (QCLot: 4193641)								
EG052G: Reactive Silica	----	0.05	mg/L	<0.05	5 mg/L	106	78.9	118
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4193636)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4193636) - continued								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	99.1	90.9	112
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4193640)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	99.8	90.9	112
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4198137)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	103	90.0	117
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4198139)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	106	90.0	117
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4194757)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	95.5	70.0	117
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4194760)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	93.6	70.0	117
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4198116)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	115	70.0	117
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4194758)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	94.3	71.9	114
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4194759)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	95.2	71.9	114
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4198115)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	96.4	71.9	114
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 4193639)								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	110	92.7	119
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 4193643)								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	110	92.7	119
EP002: Dissolved Organic Carbon (DOC) (QCLot: 4193706)								
EP002: Dissolved Organic Carbon	----	1	mg/L	<1	100 mg/L	94.8	83.0	115
EP002: Dissolved Organic Carbon (DOC) (QCLot: 4193709)								
EP002: Dissolved Organic Carbon	----	1	mg/L	<1	100 mg/L	95.5	83.0	115
EP005: Total Organic Carbon (TOC) (QCLot: 4193707)								
EP005: Total Organic Carbon	----	1	mg/L	<1	100 mg/L	92.9	81.2	110
EP005: Total Organic Carbon (TOC) (QCLot: 4193708)								
EP005: Total Organic Carbon	----	1	mg/L	<1	100 mg/L	95.1	81.2	110
EP008: Chlorophyll (QCLot: 4202614)								
EP008B: Chlorophyll b	----	1	mg/m³	<1	----	----	----	----
EP008: Chlorophyll (QCLot: 4202615)								
EP008B: Chlorophyll b	----	1	mg/m³	<1	----	----	----	----
EP008: Chlorophyll (QCLot: 4202619)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP008: Chlorophyll (QCLot: 4202619) - continued								
EP008: Chlorophyll a	----	1	mg/m³	<1	20 mg/m³	112	70.0	130
EP008: Chlorophyll (QCLot: 4202620)								
EP008: Chlorophyll a	----	1	mg/m³	<1	20 mg/m³	110	70.0	130
EP008: Pheophytin a	----	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**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 4198138)							
EM2203091-002	US Tauwitchere	EK055G-SW: Ammonia as N	7664-41-7	0.5 mg/L	102	70.0	130
EK055G-SW: Ammonia as N by Discrete Analyser in Saline Water (QCLot: 4198140)							
EM2203091-022	Tilley Swamp Drain Watercourse outlet	EK055G-SW: Ammonia as N	7664-41-7	0.5 mg/L	129	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4193638)							
EM2203091-002	US Tauwitchere	ED045G: Chloride	16887-00-6	400 mg/L	103	70.0	142
ED045G: Chloride by Discrete Analyser (QCLot: 4193642)							
EM2203091-022	Tilley Swamp Drain Watercourse outlet	ED045G: Chloride	16887-00-6	400 mg/L	# Not Determined	70.0	142
EG052G: Silica by Discrete Analyser (QCLot: 4193637)							
EM2203091-002	US Tauwitchere	EG052G: Reactive Silica	----	5 mg/L	101	80.0	120
EG052G: Silica by Discrete Analyser (QCLot: 4193641)							
EM2203091-022	Tilley Swamp Drain Watercourse outlet	EG052G: Reactive Silica	----	5 mg/L	99.4	80.0	120
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4193636)							
EM2203091-002	US Tauwitchere	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	85.6	80.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4193640)							
EM2203091-022	Tilley Swamp Drain Watercourse outlet	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	86.4	80.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4198137)							
EM2203083-004	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	90.8	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4198139)							
EM2203091-020	Tilley Swamp Drain U/S Morella	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	90.6	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4194757)							
EM2203080-010	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	100	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4194760)							
EM2203091-020	Tilley Swamp Drain U/S Morella	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	99.9	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4198116)							
EM2203065-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	93.5	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4194758)							
EM2203080-010	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	87.6	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4194759)							
EM2203091-020	Tilley Swamp Drain U/S Morella	EK067G: Total Phosphorus as P	----	1 mg/L	88.3	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4198115)							
EM2203065-001	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	116	70.0	130
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 4193639)							
EM2203091-002	US Tauwitchere	EK071G: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	93.5	79.0	123
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 4193643)							
EM2203091-022	Tilley Swamp Drain Watercourse outlet	EK071G: Reactive Phosphorus as P	14265-44-2	0.5 mg/L	92.9	79.0	123
EP002: Dissolved Organic Carbon (DOC) (QCLot: 4193706)							
EM2203091-007	Bonneys	EP002: Dissolved Organic Carbon	----	100 mg/L	# 121	75.0	117
EP005: Total Organic Carbon (TOC) (QCLot: 4193707)							
EM2203091-002	US Tauwitchere	EP005: Total Organic Carbon	----	500 mg/L	98.4	76.6	125
EP005: Total Organic Carbon (TOC) (QCLot: 4193708)							
EM2203091-022	Tilley Swamp Drain Watercourse outlet	EP005: Total Organic Carbon	----	100 mg/L	108	76.6	125