Chain of Custody

Patterson Britton
& Partners Pty Ltd

consulting engineers

Contact Name:	David Stone
Contact Number:	9957 1619
Fax:	9957 1291
Email:	davids@patbrit.com.au

Service Agreement:	E031223.AR
Our Ref:	4903 / 5194 / 5093-02 - Warriewood Wet Weather

Sheet	1 of 1
Date:	30/06/2005

Sample ID	Date	Time	Sample Type (Water/Sed)	Analytes												
				Ammonia-N	TKN	Total-N	Nitrate/Nitrite	Phosphorous-Total	Phosphorous-Ortho	Suspended Solids	Faecal Coliforms	Phosphorous-NonFilterable				
£208212 WS804US	30/06/2005	11:15am	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
13 WS804IS	30/06/2005	11:30am	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
14 WS804DS	30/06/2005	11:45am	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
15 WS311US	30/06/2005	12:15pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
16 WS311DS	30/06/2005	12:30pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
17 WSB34US	30/06/2005	1:00pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
18 WSB34IS	30/06/2005	1:15pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				
19 WSB34DS	30/06/2005	1:30pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓				

Signature

1 JUL 2005
SE2427

Received by:
J. Trahair
1/7/05 Ampol Cardiff

Printed: 30/06/2005 3:18 PM

Attention: Ms Julie Edman

AMDEL LIMITED
99 Mitchell Road
CARDIFF NSW 2285

E-mail To:
jedman@amdel.com
cc: Angela Karsch
akarsch@amdel.com

CERTIFICATE OF ANALYSIS

Report No:	**S 05033976 sm**	**Report Date:**	**7 July 2005**
Date Received:	**1 July 2005**	**Date Tested:**	**1 July 2005**
Standing Order:	**S046575**	**Arrival Temp:**	**10.0°C**

RESULTS

Sample Description	**Order No.**
Water Samples	5E2427

Sample Description	Thermotolerant Coliforms CFU per 100ml M12.2
WS804US	6,000 (est)
WS8041S	500
WS804DS	4,500 (est)
WS311US	7,200 (est)
WS311DS	6,300 (est)
WSB34US	5,700 (est)
WSB34IS	6,600 (est)
WSB34DS	7,200 (est)

Note: 'est' indicates Estimate

SELINA BEGUM MAppSci, MAIFST
CONSULTANT MICROBIOLOGIST

TGA Licence No: 152612

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AMDEL INTERNAL QUALITY ASSURANCE REVIEW.

Job No. 5E2427

General

1. Laboratory QA/QC including Method Blanks, Duplicates, Matrix Spikes, Laboratory Control Samples or CRM's are included in this QA/QC appendix. (Where applicable)
2. Inter-Laboratory proficiency trial results are available upon request.
3. PQLs are matrix dependent and are increased accordingly where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spike or surrogate recoveries.
5. Where 3 and 2 significant figures are reported for > 10x PQL and < 10x PQL respectively, the last figure is uncertain and is provided for statistical purposes only.
6. Samples duplicated or spiked are from this job only and are identified in the following QA/QC report.
7. SVOC analyses on waters are performed on homogenized, unfiltered samples, unless noted otherwise.

Maximum Holding Times for Soils, Sediments and Waters

Parameter	Holding Times
Soils	
Volatile and Semi-Volatile Organic Analysis.	Extracted in 14 days, analysed within 40 days.
Metals	Extracted and analysed within 28 days-6 months.
Inorganics*	Extracted and analysed within 7-28 days.
TCLPs*	Extracted and analysed within 14 days, (Zero Headspace-TCLP 7 days).
Waters	
Volatile Organic Analysis	Analysed within 7 days (USEPA requires 14 days).
Semi-Volatile Organic Analysis	Extracted in 7 days, analysed within 40 days.
Inorganics*	Analysed within 24 hrs-28 days.
Metals (dissolved metals should be supplied field filtered)	Prepared and analysed within 28 days.

* Please refer to 'Preservation Information Chart for Soils, Sediments & Waters' for further information. (ISFORM.098). Holding times may be extended with the use of preservation bottles and/or freezing samples. Holding times can be calculated from dates reported in the body of the report. Tests clearly exceeding holding times will be noted when sufficient information is provided.
Reference: USEPA SW846 and AMDEL SPM-01 (incorporating NEPM Guidelines).

Chain of Custody and Sample Integrity	Yes/NO/NA
Chain of Custody / instructions received with samples	Yes
Custody seals were received intact, if used	NA
Samples were received chilled and in good condition	Yes
Samples received appropriately preserved for all tests	Yes
VOC/SVOC samples were received in teflon lined containers	NA
Samples received with Zero Headspace	NA
Chain of Custody completed and attached (if applicable)	Yes
Chromatography Calibration/Acceptence Criteria (if applicable)	
Retention time window meets acceptance criteria (+/-2%)	NA
Reference standard meets acceptance criteria (+/-10%)	NA
Recalibration standard meets acceptance criteria (+/-15%)	NA
Internal standard recovery acceptable.	NA

Amdel QA/QC Compliance Assessment

	Compliance
Surrogates performed on all appropriate GC analyses and meet acceptance limits (70% - 130% recovery*).	Please see body of report
Matrix Spikes performed once per process batch and at least 1 in 20 samples (Results meet acceptance limits - 70% - 130% recovery* or 80% - 120% recovery* for inorganics in water.)	Please see body of report
Laboratory Control samples performed once per process batch and at least 1 in 20 samples (Results meet acceptance limits - 70% - 130% recovery* in soil or 70%-130%/90-110% recovery* for waters.)	NA
Laboratory Duplicate samples performed once per process batch and at least 1 in 10 samples	Yes
Laboratory duplicates meet acceptance criteria < 4 PQL - +/- 2 PQL 4-10 PQL - 25-50 or 50% RPD > 10 PQL - 10-30 or 30% RPD	Please see body of report
Method Blanks performed once per process batch and at least 1 in 20 samples (Results not detected at the PQL).	NA

N/A=Not Applicable.

* Phenols 50% - 130% recovery
* SVOCs 60% - 130% recovery
* Phenoxy Acid Herbicides 60% - 140% recovery

QA/QC Appendix

Please refer to the following pages for the QA/QC data.
For further information on samples or non-conformance in QC protocols please see notations in the body of the report plus comments on the following page.

Additional Comments

Darrel Luck Ass. Dip. Applied Sc.(Chem.)
Team Leader - Metals

Peter Keyte B.Sc.(Chem.)
Senior Chemist - Inorganics

Mark Fahmy B.Sc.
Team Leader - SVOC

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AMDEL STANDARD LABORATORY QUALIFIER CODES.

Job NO. 5E2427

Qualifier Codes	Description
*	PQLs are raised due to matrix interference.
@	PQLs are raised due to insufficient sample provided for analysis.
$	The mass imbalance indicates the presence of other ions not measured as part of this procedure.
nd	< PQL
--	Not applicable
LNR	The sample was listed on the COC, but not received.
IS	Insufficient sample was supplied to conduct this analysis.
AN	The analysis indicates the presences of an analyte that has been 'tentatively' identified, and the associated numerical value represents it's approximate concentration.
A	Sample results are reported on an 'as received' basis (not moisture corrected).
B	The sample was not received in a suitable timeframe to allow completion within the recommended holding time.
C	This sample was received with headspace.
D	This sample was received with the incorrect preservation for this analysis.
E	The raw data indicates the absence of 0.055g of Copper Sulphate in the sample.
F	This sample contained significant amounts of solids and was therefore analysed by settling and decanting the aqueous phase to avoid including the solid in the analysis portion.
G	This test was performed outside the recommended holding time.
H	This sample contained significant material > 5mm which was removed prior to analysis.
ISD	Insufficient sample was supplied to conduct duplicate analyses.
ISM	Insufficient sample was supplied to conduct matrix spike analyses.
W	The spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
J	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause.
K	The matrix spike concentration is less than five times the background concentration in the sample, and therfore the spike recovery can not be determined.
L	The surrogate recovery is outside of the recommended acceptance criteria, due to matrix interference.
M	The surrogate recovery is outside of the recommended acceptance criteria. Insufficent sample remains to perform re-analysis.
N	Results are expressed in mg/L (ppm) due to the high concentration of the analyte.
O	The results reported are 'recoverable organics' for this fraction, as the chromatogram and peak shape indicates the presence of a significant concentration of polar compounds.
P	The concentration reported is mainly due to a single peak.
Q	This samples contains volatile halogenated oxygenated or other compounds that are included and quantitated as part of TPH C6-9.
R	Theoretically the total result should be greater or equal to the dissolved concentration. However the difference reported is within the uncertainty of the individual tests.
S	The mass imbalance was equal to or less than 0.2 milli-equivalents.
T	During Kjeldahl digestion, nitrate (> 10mg/L) can oxidise ammonia resulting in a negative TKN interference, which may have occurred for this sample.
U	Theoretically the TKN result should be greater or equal to ammonia concentration. However the difference reported is within the uncertainty of the individual tests.
V	This sample contained significant amounts of sediment which was included in the analysis portion as requested.
SUR	Surrogate recoveries could not be determined due to the dilution required to quantify the analyte.

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Job Number : 5E2427

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E2330 Ammonia as N in Water							
Ammonia as N	1.0	1.01	1.02		101%	102%	
E2770 Kjeldahl Nitrogen in Water							
Kjeldahl Nitrogen	1	1.2			113%		
E2550 Nitrate as N in Water							
Nitrate as N	1.0	1.04			105%		
E2560 Nitrite as N in Water							
Nitrite as N	1.0	0.99	1.01		99%	101%	
E2640 Total Phosphorus in Water							
Phosphorus	0.40	0.38			95%		
E2630 Dissolved Phosphorus in Water							
Dissolved Phosphorus	1.0	1.04	1.03		104%	103%	
E2670 Suspended Solids in Water							
Suspended Solids	75	74			99%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

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Job Number : 5E2427

QAQC : Laboratory Duplicate(s)

Analyte	Dupl A	Dupl B	Average	RPD (%)	Dupl A	Dupl B	Average	RPD (%)
E2330 Ammonia as N in Water (E208212)								
Ammonia as N	0.01	nd	0.01					
E2770 Kjeldahl Nitrogen in Water (E208212)								
Kjeldahl Nitrogen	0.8	0.9	0.9	11%				
E2640 Total Phosphorus in Water (E208212)								
Phosphorus	0.28	0.27	0.28	3%				
E2630 Dissolved Phosphorus in Water (E208212)								
Dissolved Phosphorus	0.12	0.13	0.13	7%				
E2670 Suspended Solids in Water (E208212)								
Suspended Solids	59	59	59	0%				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

The number in brackets after the method header identifies the sample tested.

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Job Number : 5E2427

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E2330 Ammonia as N in Water						
Ammonia as N	0.01	nd				
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	nd				
E2550 Nitrate as N in Water						
Nitrate as N	0.02	nd				
E2560 Nitrite as N in Water						
Nitrite as N	0.02	nd				
E2640 Total Phosphorus in Water						
Phosphorus	0.02	nd				
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	nd				
E2670 Suspended Solids in Water						
Suspended Solids	1	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

ANALYTICAL SERVICES DIVISION
ABN 30 008 127 802
Correspondence to:
PO Box 331
HUNTER REGIONAL MAIL
CENTRE NSW 2310

99 Mitchell Rd
CARDIFF NSW 2285
Telephone: (02) 4902 4800
Facsimile: (02) 4902 4899

CERTIFICATE OF ANALYSIS

Contents :
1. Cover Pages (2)
2. Analysis Report Pages
3. QA/QC Appendix
4. Additional Reports - External (if applicable)
5. Chain of Custody (if applicable)

Report No.	:	5E2458
Attention	:	David Stone
Client	:	Patterson Britton & Partners Pty Ltd : PO Box 515 : NORTH SYDNEY
Samples	:	7
Reference/Order	:	4903/5194/5093-02
Project	:	WARRIEWOOD WET WEATHER
Received Samples	:	04/07/05
Instructions	:	04/07/05
Date Reported	:	27/07/05

PLEASE SEE FOLLOWING PAGES FOR METHOD LISTING AND RESULTS

RESULTS

All samples were analysed as received. This report relates specifically to the samples as received. Results relate to the source material only to the extent that the samples as supplied are truly representative of the sample source. This report replaces any preliminary results issued. Note that for methods indicated with "#", NATA accreditation does not cover the performance of this service. Three significant figures (or 2 for < 10PQL) are reported for statistical purposes only. Where "Total" concentrations are reported for organic suites of compounds this is the summation of the individual compounds and the PQL is noted for reporting purposes only. This report has been authorized by the NATA signatories listed in the method descriptions section on the following page.

Darrel Luck Ass. Dip. Applied Sc.(Chem.)
Team Leader - Metals

Peter Keyte B.Sc.(Chem.)
Senior Chemist - Inorganics

Mark Fahmy B.Sc.
Team Leader - SVOC

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Report No. : 5E2458

Please note: Where samples are collected/submitted over several days, the date on which the last samples were analysed or extracted is reported.
Unless Ferrous Iron is determined on site, the possibility of a ferrous-ferric ratio change may occur.

Method	Description	Extracted	Analysed	Authorised	
E2330	Ammonia as N	11/07/05	11/07/05	PKE	101
E2770	TKN	12/07/05	18/07/05	PKE	101
E2570	Total Nitrogen	22/07/05	22/07/05	PKE	101
E2550	Nitrate-N	11/07/05	11/07/05	PKE	101
E2560	Nitrite-N	11/07/05	11/07/05	PKE	101
E2640	Phosphorus-Total	12/07/05	18/07/05	PKE	101
E2630	Dissolved Phosphorus	13/07/05	13/07/05	PKE	101
E2670	Suspended Solids	06/07/05	06/07/05	PKE	101
E2640	Phosphorus-Total (Filtered sample)	13/07/05	19/07/05	PKE	101
E2640R	Phosphorus-Total (Filtered Residue)	19/07/05	22/07/05	PKE	101

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NATA Signatory

Initials	Name	Sections/Methods
MFA	Mark Fahmy	094, 095, 096
GTO	Greg Towers	094, 096
GPE	Geoff Peterson	095, 096
DLU	Darrel Luck	093, 096
MAV	Merrin Avery	101, 096
DBL	Dianne Blane	101, 096
NCO	Nathan Cooper	101, 096
AGR	Alison Graham	101, 096
PKE	Peter Keyte	101, 096, 097, 098

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Job Number : 5E2458
Client : Patterson Britton & Partners Pty Ltd
Reference : 4903/5194/5093-02
Project : WARRIEWOOD WET WEATHER

Analyte	Lab No	E204993	E204994	E204995	E204996	E204997
		WS805US	WS805IS	WS805DS	WS312US	WS312DS
	Sample Id	4.7.05	4.7.05	4.7.05	4.7.05	4.7.05
	PQL					
E2330 Ammonia as N in Water						
Ammonia as N	0.01	nd	0.03	nd	0.02	0.05
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	0.5	0.7	0.5	0.5	0.5
Total Nitrogen	0.1	0.7	1.0	1.0	1.8	2.2
E2550 Nitrate as N in Water						
Nitrate as N	0.02	0.19	0.21	0.50	1.17	1.63
E2560 Nitrite as N in Water						
Nitrite as N	0.02	nd	nd	nd	nd	nd
E2640 Total Phosphorus in Water						
Phosphorus	0.02	nd	0.12	0.04	nd	0.03
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	nd	0.03	0.02	nd	nd

PQL = Practical Quantitation Limit
LNR = Samples Listed not Received
nd = <PQL
-- = Not Applicable

Soils : mg/kg (ppm) dry weight unless otherwise specified
Waters : mg/L (ppm) unless otherwise specified in Method Header
Leachates : mg/L (ppm) in leachate unless otherwise specified in Method Header

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E2458
Client : Patterson Britton & Partners Pty Ltd
Reference : 4903/5194/5093-02
Project : WARRIEWOOD WET WEATHER

Analyte	Lab No	E204998	E204999			
		WSB35US	WSB35DS			
	Sample Id	4.7.05	4.7.05			
	PQL					
E2330 Ammonia as N in Water						
Ammonia as N	0.01	0.05	0.09			
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	0.6	0.7			
Total Nitrogen	0.1	1.2	1.0			
E2550 Nitrate as N in Water						
Nitrate as N	0.02	0.54	0.24			
E2560 Nitrite as N in Water						
Nitrite as N	0.02	0.03	nd			
E2640 Total Phosphorus in Water						
Phosphorus	0.02	0.05	0.10			
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	0.02	0.01			

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Job Number : 5E2458

Client : Patterson Britton & Partners Pty Ltd

Reference : 4903/5194/5093-02

Project : WARRIEWOOD WET WEATHER

Analyte	Lab No	E204993	E204994	E204995	E204996	E204997
		WS805US	WS805IS	WS805DS	WS312US	WS312DS
	Sample Id	4.7.05	4.7.05	4.7.05	4.7.05	4.7.05
	PQL					
E2670 Suspended Solids in Water						
Suspended Solids	1	11	13	1	1	5
E2640 Total Phosphorus in filtered water						
hosphorus	0.05	nd	0.11	0.10	nd	0.06
E2640 Total Phosphorus in filtered water						
Phosphorus	0.05	nd	nd	nd	nd	nd

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Project : WARRIEWOOD WET WEATHER

Analyte	Lab No	E204998	E204999			
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	Sample Id	4.7.05	4.7.05			
	PQL					
E2670 Suspended Solids in Water						
Suspended Solids	1	10	6			
E2640 Total Phosphorus in filtered water						
hosphorus	0.05	0.06	nd			
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AMDEL INTERNAL QUALITY ASSURANCE REVIEW Cont..

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Method Blanks performed once per process batch and at least 1 in 20 samples (Results not detected at the PQL).	NA

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QA/QC Appendix

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P	The concentration reported is mainly due to a single peak.
Q	This samples contains volatile halogenated oxygenated or other compounds that are included and quantitated as part of TPH C6-9.
R	Theoretically the total result should be greater or equal to the dissolved concentration. However the difference reported is within the uncertainty of the individual tests.
S	The mass imbalance was equal to or less than 0.2 milli-equivalents.
T	During Kjeldahl digestion, nitrate (> 10mg/L) can oxidise ammonia resulting in a negative TKN interference, which may have occurred for this sample.
U	Theoretically the TKN result should be greater or equal to ammonia concentration. However the difference reported is within the uncertainty of the individual tests.
V	This sample contained significant amounts of sediment which was included in the analysis portion as requested.
SUR	Surrogate recoveries could not be determined due to the dilution required to quantify the analyte.

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Job Number : 5E2458

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E2330 Ammonia as N in Water							
Ammonia as N	1.0	1.08	1.08		108%	108%	
E2770 Kjeldahl Nitrogen in Water							
Kjeldahl Nitrogen	1	0.9			93%		
E2550 Nitrate as N in Water							
Nitrate as N	1.0	1.13			113%		
E2560 Nitrite as N in Water							
Nitrite as N	1.0	1.01	1.01		101%	101%	
E2640 Total Phosphorus in Water							
Phosphorus	0.40	0.42			104%		
E2630 Dissolved Phosphorus in Water							
Dissolved Phosphorus	1.0	1.03	1.04		103%	104%	

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

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Job Number : 5E2458

QAQC : Laboratory Duplicate(s)

Analyte	Dupl A	Dupl B	Average	RPD (%)	Dupl A	Dupl B	Average	RPD (%)
E2330 Ammonia as N in Water (E204993)								
Ammonia as N	nd	nd						
E2770 Kjeldahl Nitrogen in Water (E204993)								
Kjeldahl Nitrogen	0.5	0.5	0.5	0%				
E2640 Total Phosphorus in Water (E204993)								
Phosphorus	nd	nd						
E2630 Dissolved Phosphorus in Water (E204993)								
Dissolved Phosphorus	nd	nd						

PQL = Practical Quantitation Limit
nd = <PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

The number in brackets after the method header identifies the sample tested.

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Job Number : 5E2458

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E2330 Ammonia as N in Water						
Ammonia as N	0.01	nd				
E2770 Kjeldahl Nitrogen in Water						
Kjeldahl Nitrogen	0.1	nd				
E2550 Nitrate as N in Water						
Nitrate as N	0.02	nd				
E2560 Nitrite as N in Water						
Nitrite as N	0.02	nd				
E2640 Total Phosphorus in Water						
Phosphorus	0.02	nd				
E2630 Dissolved Phosphorus in Water						
Dissolved Phosphorus	0.01	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

amdel

Job Number : 5E2458

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E2670 Suspended Solids in Water							
Suspended Solids	75	71			94%		
E2640 Total Phosphorus in filtered water							
Phosphorus	0.400	0.45			114%		

PQL = Practical Quantitation Limit
-- = Not Applicable
nd = < PQL

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

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Job Number : 5E2458

QAQC : Laboratory Duplicate(s)

Analyte	Dupl A	Dupl B	Average	RPD (%)	Dupl A	Dupl B	Average	RPD (%)
E2640 Total Phosphorus in filtered water (E204993)								
Phosphorus	nd	nd						

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

The number in brackets after the method header identifies the sample tested.

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Job Number : 5E2458

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E2670 Suspended Solids in Water						
Suspended Solids	1	nd				
E2640 Total Phosphorus in filtered water						
Phosphorus	0.05	nd				

PQL = Practical Quantitation Limit
nd = < PQL
-- = Not Applicable

(S) Soils : mg/kg (ppm) dry weight
(W) Waters : mg/L (ppm) unless otherwise specified

Attention: Ms Julie Edman

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cc: Angela Karsch
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CERTIFICATE OF ANALYSIS

Report No:	**S 05034347 sm**	**Report Date:**	**11 July 2005**
Date Received:	**5 July 2005**	**Date Tested:**	**5 July 2005**
Standing Order:	**S046575**	**Arrival Temp:**	**11.0°C**

RESULTS

Sample Description	**Order No.**
Water Samples	5E2458

Sample Description	Thermotolerant Coliforms CFU per 100ml M12.2
E204993/WS805US	360
E204994/WS805IS	60 (est)
E204995/WS805DS	300
E204996/WS312US	190 (est)
E204997/WS312DS	270
E204998/WS35US	190 (est)
E204999/WS35DS	200

Note: 'est' indicates Estimate

SELINA BEGUM MAppSci, MAIFST
CONSULTANT MICROBIOLOGIST

TGA Licence No: 152612

Chain of Custody

Patterson Britton & Partners Pty Ltd
consulting engineers

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Service Agreement:	E031223.AR
Our Ref:	4903 / 5194 / 5093-02 - Warriewood Wet Weather

Sheet	1	of 1
Date:	4/07/2005	

	Sample ID	Date	Time	Sample Type (Water/Sed)	Analytes											
					Ammonia-N	TKN	Total-N	Nitrate/Nitrite	Phosphorous-Total	Phosphorous-Ortho	Suspended Solids	Faecal Coliforms	Phosphorous-NonFilterable			
1	WS805US	4/07/2005	11:15am	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			
4	WS805IS	4/07/2005	11:30am	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			
5	WS805DS	4/07/2005	11:20am	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			
6	WS312US	4/07/2005	12:00pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			
7	WS312DS	4/07/2005	12:20pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			
8	WSB35US	4/07/2005	12:30pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			
9	WSB35DS	4/07/2005	12:45pm	Water	✓	✓	✓	✓	✓	✓	✓	✓	✓			

4 JUL 2005

Signature

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