Appendix E Laboratory Reports

RTI DL RELEASE - EHP

This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025
Accreditation Number: 1645

LabMark ENVIRONMENTAL LABORATORIES

Certificate of Analysis

Sinclair Knight Merz
369 Anne Street
Brisbane QLD 4000
Australia

Attention: Jeremy Wicks

Project	**09ENME0031585**
Client Reference	QE09537
	Cronulla Park
Received Date	18/09/2009 12:10:00 PM

Customer Sample ID			**Trip01**	**Trip02**
Sample Matrix			**WATER**	**WATER**
Labmark Sample No.			**1732403**	**1732404**
Date Sampled			**17/09/2009**	**17/09/2009**
VOC				
Test/Reference	PQL	Unit		
1100 BTEX & (C6-C9) in Water by P&T				
4-Bromofluorobenzene - Surrogate	-	%	89	86
Benzene	0.5	µg/L	1.6	6.7
Toluene	1	µg/L	4.6	1.1
Ethylbenzene	1	µg/L	2.4	7.5
Meta- & Para- Xylene	2	µg/L	<2.0	7.3
Ortho-Xylene	1	µg/L	<1.0	4.1
Total Xylenes	3	µg/L	<3.0	11
C6-C9 Fraction	20	µg/L	<20.0	44
SVOC				
Test/Reference	PQL	Unit		
2000 TPH (C10 - C36) in Water by GC				
C10-C14 Fraction	40	µg/L	720	520
C15-C28 Fraction	100	µg/L	1230	1210
C29-C36 Fraction	100	µg/L	<100	<100
Metals				
Test/Reference	PQL	Unit		
3100 Dissolved Metals in Water By ICP/MS				
Arsenic	5	µg/L	20	12
Cadmium	5	µg/L	<5	<5
Chromium	5	µg/L	7.5	14
Copper	5	µg/L	<5	5.2
Lead	5	µg/L	<5	<5
Nickel	5	µg/L	9.0	44
Zinc	5	µg/L	21	12
3400 Dissolved Mercury in Water by FIMS				
Mercury	0.1	µg/L	<0.1	<0.1

RTI DL RELEASE - EHP

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	**Testing Site**	**Extracted**	**Analysed**
1100 BTEX & (C6-C9) in Water by P&T	Melbourne 1645	23/09/2009	25/09/2009
2000 TPH (C10 - C36) in Water by GC	Melbourne 1645	23/09/2009	25/09/2009
3100 Dissolved Metals in Water By ICP/MS	Melbourne 1645	22/09/2009	23/09/2009
3400 Dissolved Mercury in Water by FIMS	Melbourne 1645	22/09/2009	23/09/2009

Labmark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. Matrix spike recoveries are calculated on an 'As Received' basis; the parent sample result is moisture corrected after the % recovery is determined.
3. Proficiency trial results are available on request.
4. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spike or surrogate recoveries.
6. Test samples duplicated or spiked, are for this job only and are identified in the following QC report.
7. SVOC analyses on waters are performed on homogenized, unfiltered sample, unless noted otherwise.
8. When individual results are qualified in the body of a report, refer to the qualifier descriptions that follow.
9. Samples were analysed on an as received basis.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sampling and Preservation Chart for Soils & Waters' for holding times. (LM-FOR-ADM-020)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgement.
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitablity qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

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Quality Control Results

Laboratory: **EN_METALS**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1737175 [Method Blank]							
3400 Dissolved Mercury in Water by FIMS							
Mercury	µg/L	<0.1			< 0.1	Pass	
1737185 [Method Blank]							
3100 Dissolved Metals in Water By ICP/MS							
Antimony	µg/L	<5			< 5	Pass	
Arsenic	µg/L	<5			< 5	Pass	
Barium	µg/L	<5			< 5	Pass	
Beryllium	µg/L	<5			< 5	Pass	
Boron	µg/L	<5			< 5	Pass	
Cadmium	µg/L	<5			< 5	Pass	
Chromium	µg/L	<5			< 5	Pass	
Cobalt	µg/L	<5			< 5	Pass	
Copper	µg/L	<5			< 5	Pass	
Lead	µg/L	<5			< 5	Pass	
Manganese	µg/L	<5			< 5	Pass	
Molybdenum	µg/L	<5			< 5	Pass	
Nickel	µg/L	<5			< 5	Pass	
Selenium	µg/L	<5			< 5	Pass	
Tin	µg/L	<5			< 5	Pass	
Vanadium	µg/L	<5			< 5	Pass	
Zinc	µg/L	<5			< 5	Pass	
1737176 [Laboratory Control Sample]							
3400 Dissolved Mercury in Water by FIMS			Expected Value	Percent Recovery			
Mercury	µg/L	9.6	10.0	96	80-120 %	Pass	

Laboratory: **EN_METALS**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1737186 [Laboratory Control Sample]							
3100 Dissolved Metals in Water By ICP/MS			Expected Value	Percent Recovery			
Antimony	µg/L	97	100.0	97	80-120 %	Pass	
Arsenic	µg/L	97	100.0	97	80-120 %	Pass	
Barium	µg/L	100	100.0	100	80-120 %	Pass	
Beryllium	µg/L	93	100.0	93	80-120 %	Pass	
Boron	µg/L	110	100.0	107	80-120 %	Pass	
Cadmium	µg/L	100	100.0	105	80-120 %	Pass	
Chromium	µg/L	100	100.0	101	80-120 %	Pass	
Cobalt	µg/L	99	100.0	99	80-120 %	Pass	
Copper	µg/L	100	100.0	100	80-120 %	Pass	
Lead	µg/L	100	100.0	102	80-120 %	Pass	
Manganese	µg/L	98	100.0	98	80-120 %	Pass	
Molybdenum	µg/L	92	100.0	92	80-120 %	Pass	
Nickel	µg/L	98	100.0	98	80-120 %	Pass	
Selenium	µg/L	94	100.0	94	80-120 %	Pass	
Tin	µg/L	100	100.0	100	80-120 %	Pass	
Vanadium	µg/L	99	100.0	99	80-120 %	Pass	
Zinc	µg/L	100	100.0	100	80-120 %	Pass	

Laboratory: **EN_SVOC**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1736842 [Method Blank]							
2000 TPH (C10 - C36) in Water by GC							
C10-C14 Fraction	µg/L	<40			< 40	Pass	
C15-C28 Fraction	µg/L	<100			< 100	Pass	
C29-C36 Fraction	µg/L	<100			< 100	Pass	
1736843 [Laboratory Control Sample]							
2000 TPH (C10 - C36) in Water by GC			Expected Value	Percent Recovery			
C10-C14 Fraction	µg/L	2600	200.0	104	70-130 %	Pass	
C15-C28 Fraction	µg/L	2890	200.0	116	70-130 %	Pass	
C29-C36 Fraction	µg/L	2840	200.0	114	70-130 %	Pass	

Laboratory: **EN_VOC**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1736430 [Method Blank]							
1100 MAH(BTEX & C6-C9) in Water P&T							
Benzene	µg/L	<0.5			< 0.5	Pass	
C6-C9 Fraction	µg/L	<20.0			< 20	Pass	
Ethylbenzene	µg/L	<1.0			< 1	Pass	
Meta- & Para- Xylene	µg/L	<2.0			< 2	Pass	
Ortho-Xylene	µg/L	<1.0			< 1	Pass	
Toluene	µg/L	<1.0			< 1	Pass	
Total Xylenes	µg/L	<3.0			< 3	Pass	
4-Bromofluorobenzene - Surrogate	%	87			70-130 %	Pass	
1736432 [Laboratory Control Sample]							
1100 MAH(BTEX & C6-C9) in Water P&T			Expected Value	Percent Recovery			
Benzene	µg/L	12	10.0	117	70-130 %	Pass	
C6-C9 Fraction	µg/L	170	140.0	124	70-130 %	Pass	
Ethylbenzene	µg/L	11	10.0	114	70-130 %	Pass	
Meta- & Para- Xylene	µg/L	25	20.0	124	70-130 %	Pass	
Ortho-Xylene	µg/L	12	10.0	116	70-130 %	Pass	
Toluene	µg/L	12	10.0	117	70-130 %	Pass	
Total Xylenes	µg/L	36	30.0	122	70-130 %	Pass	
4-Bromofluorobenzene - Surrogate	%	101			70-130 %	Pass	

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Sample Integrity

Custody Seals Intact (if used)	Yes
Attempt to Chill was evident	Yes
Samples correctly preserved	Yes
Organic samples had Teflon liners	Yes
Samples received with Zero Headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Authorised By

Alex Petridis	Senior Analyst - SVOC	
Ruth Callander	Client Services Officer	
Mark Herbstreit	Senior Analyst - Metals	Accreditation Number: 1645
Khoa Pham	Analyst - VOC	Accreditation Number: 1645
Olga Alieva	Analyst - SVOC	Accreditation Number: 1645
Patricia Hua	Senior Analyst	Accreditation Number: 1645

Laboratory Manager

David Elliott — Laboratory Manager - Melbourne

49-Sch4 - Signature

Final Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

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The samples were not collected by Laboratory staff.

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SKM

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	32 Cordelia Street, South Brisbane Qld 4101	**Results Required:**		Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	Please send electronic reports to jwicks@skm.com.au & okanas&skm.com.au
Phone:		**Turn Around**	5-days	

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: (Yes) No N/A	
Sample Temp (chilled): (Yes) No 15°C	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 18/09/2009	Name: N Clayton	Date: 18/09/09	Consignment Note No:
Company: SKM	Time: 1:30 pm	Company: Labmark	Time: 1210	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS															
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles	TPH/GC-C36/BTEX/Metals															
1732403	Trip01		Water	17/9/09			2G, 2V, 1N	x															
1732404	Trip02		Water	17/9/09			2G, 2V, 1N	x															
TOTAL SAMPLES			15					7															

RECEIVED
09ENMEO031585
18 SEP 2009
AMDEL

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CHAIN OF CUSTODY DOCUMENTATION

CLIENT: SKM	SAMPLER: Ona Kenas.
ADDRESS / OFFICE: 32 Cordelia St South Bne.	MOBILE:
PROJECT MANAGER (PM): Jeremy Wicks	PHONE
PROJECT ID: QE09537	EMAIL REPORT TO: ~~Other~~ okenas@skm.com.au
SITE: P.O. NO.:	EMAIL INVOICE TO: (if different to report) jwicks@skm.com.au
RESULTS REQUIRED (Date): QUOTE NO.:	ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

ALS Australian Laboratory Services Pty Ltd

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Notes: e.g. Highly contaminated samples, Extra volume for QC or trace LORs etc.

SAMPLE INFORMATION (note: S = Soil, W=Water)					CONTAINER INFORMATION		pH	Metals (7+Hg)	Asbestos	TPH/BTEX							HOLD	
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles												
1	RINSATE 1	W	11/5	~~PM~~ AM	2V 1A 1N	4		✓		✓								
2	RINSATE 2	W	12/5	~~PM~~ AM	2V 1A 1N	4		✓		✓								
3	MW07_0.0-0.1	S	12/5	AM	1G	1	✓	✓		✓								
4	MW08 0.0-0.1	S	13/5	AM	1G	1		✓		✓							~~HOLD~~	
5	MW08 - 0.2-0.3	S	13/5	AM	1G	1												
6	MW08 - 0.5-0.6	S	13/5	AM	1G	1											✓	
7	RINSATE 3	W	13/5	AM	2V 1N 1G	4	✓	✓		✓								
8	MW09 - 0.0-0.1	S	13/5	AM	1G	1		✓										
9	MW09 - 0.2-0.3	S	13/5	AM	1G	1											✓	
	~~MW09~~																✓	
10	D[illegible]1	S	13/5	AM	1G	1		✓										

RELINQUISHED BY:

	Date: 13/5	Name: L. Angeles.	Date: 13/5/09.
	Time: PM	Of: ALS.	Time: 1640.
	Date:	Name:	Date:
	Time:	Of:	Time:

RECEIVED BY

METHOD OF SHIPMENT

Con' Note No:

Transport Co:

[illegible]tic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserveed Plastic; AG = Amber Glass Unpreserved;
[illegible]Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
[illegible]ottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

RTI DL RELEASE - EHP
Environmental Division
Brisbane
49-Sch4 - Signature
Work Order
EB0907635
Telephone : +61-7-3243 7222

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: SKM	SAMPLER: Ona Kanas
ADDRESS / OFFICE: 32 Cordelia St, Sth Bris	MOBILE:
PROJECT MANAGER (PM): Jeremy Wicks	PHONE
PROJECT ID: QE09537	EMAIL REPORT TO: okanas@skm.com.au
SITE: P.O. NO.:	EMAIL INVOICE TO: (if different to report) jwicks@skm.com.au
RESULTS REQUIRED (Date): QUOTE NO.:	ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

Australian Laboratory Services Pty Ltd

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DIPOSAL:

Notes: e.g. Highly contaminated samples, Extra volume for QC or trace LORs etc.

SAMPLE INFORMATION (note: S = Soil, W=Water)					CONTAINER INFORMATION		pH	metals (7+Hg)	Asbestos	TRH/BTEX							HOLD.	
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles												
11	MW03_1.0-1.1	S	11/5	am	250ml Jar	1											✓	
12	MW04-0.0-0.1																✓	
13	MW04-0.2-0.3						✓	✓		✓								
14	MW04_0.5-0.6																✓	
15	MW05-0.0-0.1		12/5	am.					✓								✓	
16	MW05-0.2-0.3							✓		✓								
17	MW05-0.5-0.6																✓	
	~~MW05-1.0-1.1~~																	
18	MW06-0.0-0.1							✓	✓								✓	
19	MW06-0.2-0.3							✓		✓								
20	MW06-0.5-0.6																✓	
	~~MW06-1.0-1.1~~	✓	✓		✓	✓												

RTI DL RELEASE - EHP

RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT
Name: Ona Kanas	Date: 13/5	Name: L. Angeles	Date: 13/5/09	Con' Note No:
Of: SKM	Time: PM	Of: ALS	Time: 1640	
Name:	Date:	Name:	Date:	Transport Co:
Of:	Time:	Of:	Time:	

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserveed Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY DOCUMENTATION

Australian Laboratory Services Pty Ltd

CLIENT: SKM	SAMPLER: Ona Kanas
ADDRESS / OFFICE: 32 Cordelia St, Sth Bris	MOBILE:
PROJECT MANAGER (PM): Jeremy Wicks	PHONE
PROJECT ID: QE09537	EMAIL REPORT TO: Okanas@skm.com.au
SITE: P.O. NO.:	EMAIL INVOICE TO: (if different to report) jwicks@skm.com.au
RESULTS REQUIRED (Date): QUOTE NO.:	ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DIPOSAL:

SAMPLE INFORMATION (note: S = Soil, W=Water) | CONTAINER INFORMATION

ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles	pH	metals (7 mtls)	Asbestos	TPH / BTEX	HOLD	Notes: e.g. Highly contaminated samples, Extra volume for QC or trace LORs etc.
21	MW01_0-0.1	S	11/5	am	250ml Jar	1					✓	
22	MW01_0.2-0.3	S	11/5	am		1		✓				
23	MW01_0.5-0.6	S	11/5	am		1					✓	
24	MW01_1.0-1.1	S	11/5	am		1					✓	
25	MW02_0.0-0.1	S	11/5	am		1					✓	
26	MW02_0.2-0.3	S	11/5	am		1	✓	✓		✓		
27	MW02 0.5-0.6	S	↓	↓		↓			✓			
28	MW02 1.0-1.1	S									✓	
29	MW02 1.4-1.5	S									✓	methane odour.
30	MW03_0-0.1										✓	
SNR	MW03_0.1-0.2							✓				
31	MW03_0.5-0.6		↓	↓		↓			✓		✓	

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RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT
Name: Ona Kanas	Date: 13/5	Name: L. Angeles	Date: 13/5/09	Con' Note No:
Of: SKM	Time: pm.	Of: ALS	Time: 1640.	
Name:	Date:	Name:	Date:	Transport Co:
Of:	Time:	Of:	Time:	

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserveed Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

CHAIN OF CUSTODY DOCUMENTATION

CLIENT:	SAMPLER:
ADDRESS / OFFICE:	MOBILE:
PROJECT MANAGER (PM):	PHONE
PROJECT ID:	EMAIL REPORT TO:
SITE: P.O. NO.:	EMAIL INVOICE TO: (if different to report)
RESULTS REQUIRED (Date): QUOTE NO.:	**ANALYSIS REQUIRED including SUITES** (note - suite codes must be listed to attract suite prices)

Australian Laboratory Services Pty Ltd

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DIPOSAL:

Notes: e.g. Highly contaminated samples, Extra volume for QC or trace LORs etc.

SAMPLE INFORMATION (note: S = Soil, W=Water)					CONTAINER INFORMATION	
ALS ID	SAMPLE ID	MATRIX	DATE	Time	Type / Code	Total bottles
	Extra					
	Samples					
32	MW03_0.2-0.3					
33	MW07_0.2-0.3					
34	MW05_1.0-1.1					

RTI DL RELEASE - EHP

RELINQUISHED BY:		RECEIVED BY		METHOD OF SHIPMENT
Name:	Date:	Name:	Date:	Con' Note No:
Of:	Time:	Of:	Time:	
Name:	Date:	Name:	Date:	Transport Co:
Of:	Time:	Of:	Time:	

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserveed Plastic; AG = Amber Glass Unpreserved; V = VOA Vial HCl Preserved; VS = VOA Vial Sulphuric Preserved; SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bad for Acid Sulphate Soils; B = Unpreserved Bag.

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	369 Ann Street, Brisbane Qld 4000	**Results Required:**		Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	Please send electronic reports to jwicks@skm.com.au & okanas&skm.com.au
Phone:		**Turn Around**	5-days	

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 20/5/2009	Name: T. CREAGH	Date: 19/5/09	Consignment Note No:
Company: SKM	Time: 8:30 am	Company: ALS	Time: 1300	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS													
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type / Code	Total Bottles	Ammonia (KS5)	NPs TPH (06-336) BTEX Metals	NP 19 TPH BTEX PAH	VOC										
1	MW01		Water					x	x												
2	MW02		Water					x	x												
3	MW03		Water					x		x	x										
4	MW04		Water					x		x	x										
5	MW05		Water					x		x	x										
6	MW06		Water					x		x	x										
7	MW07		Water					x		x	x										
8	MW08		Water					x		x	x										
9	MW09		Water					x		x	x										
13 ~~10~~	DUP04		Water						x												
10	MWA (CR13)		Water						x												
11	MWB (CR14)		Water					x		x	x										
12	MWC (CR15)		Water						x												
14	Rinsate/ Rinsate 4		Water						x												
TOTAL SAMPLES			14					10	6	8	8										

RTI DL RELEASE - EHP

Environmental Division
Brisbane

Work Order

EB0907913

Telephone : +61-7-3243 7222

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	369 Ann Street, Brisbane Qld 4000	**Results Required:**		Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	Please send electronic reports to jwicks@skm.com.au & okanas&skm.com.au
Phone:		**Turn Around**	5-days	

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 20/5/2009	Name:	Date:	Consignment Note No:
Company: SKM	Time: 8:30 am	Company: ALS	Time:	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS															
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type / Code	Total Bottles	S-2 Metals	S-19 TPH/BTEX/PAH/P	S-5 TPH/BTEX/Metals	S-4 TPH/BTEX												
SNR	MW06 0.0-0.1		Soil						x														
SNR	MW09 0.2-0.3		Soil							x													
1	TP1 0.0-0.1		Soil																				
2	TP1 0.2-0.3		Soil					x															
SNR	TP2 0.0-0.1		Soil																				
3	TP2 0.2-0.3		Soil							x													
4	TP3 0.0-0.1		Soil																				
5	TP3 0.2-0.3		Soil							x													
6	TP4 0.0-0.1		Soil																				

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Environmental Division
Brisbane
Work Order s19 Sch4 - Signature
EB0907961
Telephone : +61-7-3243 7222

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS															
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type / Code	Total Bottles	S-2 Metals	S-19 TPH/BTEX/PAH/P	S-5 TPH/BTEX/Metals	S-4 TPH/BTEX												
7	TP4 0.2-0.3		Soil						x														
8	TP5 0.0-0.1		Soil																				
9	TP5 0.2-0.3		Soil						x														
10	TP6 0.0-0.1		Soil																				
11	TP6 0.2-0.3		Soil					x															
12	TP7 0.0-0.1		Soil																				
13	TP7 0.2-0.3		Soil						x														
14	TP8 0.0-0.1		Soil					x															
15	TP8 0.2-0.3		Soil																				
16	TP9 0.0-0.1		Soil																				
17	TP9 0.2-0.3		Soil						x														
18	TP10 0.0-0.1		Soil																				
19	TP10 0.2-0.3		Soil						x														
20	Dup 02		Soil							x													
21	Dup 03		Soil							x													
SNR	Dup 01		Soil								x												
TOTAL SAMPLES			25					3	6	5	1												

EXTRA 22 RINSATE

RTI DL RELEASE - EHP

SKM

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	369 Ann Street, Brisbane Qld 4000	**Results Required:**		Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	Please send electronic reports to jwicks@skm.com.au & okanas&skm.com.au
Phone:		**Turn Around**	5-days	

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 20/5/2009	Name: T. Creagh	Date: 19/5/09	Consignment Note No:
Company: SKM	Time: 8:30 am	Company: ALS	Time: 1300	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS															
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type / Code	Total Bottles	S-2 Metals	S-19 TRH/BTEX/PAH	S-5 TRH/BTEX/Metals	S-4 TRH/BTEX												
EB0907635	**MW06 0.0-0.1**		**Soil**						x														
EB0907635	**MW09 0.2-0.3**		**Soil**							x													
EB0907967	TP1 0.0-0.1	1	Soil																				
EB0907967	TP1 0.2-0.3	2	Soil					x															
EB0907967	TP2 0.2-0.3	3	Soil							x													
EB0907967	TP3 0.0-0.1	4	Soil																				
EB0907967	TP3 0.2-0.3	5	Soil							x													
EB0907967	TP4 0.0-0.1	6	Soil																				
EB0907967	TP4 0.2-0.3	7	Soil						x														
EB0907967	TP5 0.0-0.1	8	Soil																				
EB0907967	TP5 0.2-0.3	9	Soil						x														
EB0907967	TP6 0.0-0.1	10	Soil																				
EB0907967	TP6 0.2-0.3	11	Soil					x															
EB0907967	TP7 0.0-0.1	12	Soil																				
EB0907967	TP7 0.2-0.3	13	Soil						x														
EB0907967	TP8 0.0-0.1	14	Soil					x															
EB0907967	TP8 0.2-0.3	15	Soil																				
EB0907967	TP9 0.0-0.1	16	Soil																				
EB0907967	TP9 0.2-0.3	17	Soil						x														
EB0907967	TP10 0.0-0.1	18	Soil																				
EB0907967	TP10 0.2-0.3	19	Soil						x														
EB0907967	Dup 02	20	Soil							x													
EB0907967	Dup 03	21	Soil							x													
EB0907635	**Dup 01**		**Soil**								x												
TOTAL SAMPLES		21						3	6	5	1												

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Environmental Division
Brisbane
Work Order
EB0907967

Telephone : +61-7-3243 7222

SKM

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	369 Ann Street, Brisbane Qld 4000	**Results Required:**		Standard 5-day turnaround
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	Please send electronic reports to jwicks@skm.com.au & okanas&skm.com.au
Phone:		**Turn Around**	5-days	

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 3/6/2009	Name:	Date:	Consignment Note No:
Company: SKM	Time: 1:30 pm	Company: ALS	Time:	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS														
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Date	Time	Type / Code	Total Bottles	Ammonia (EK055)	WS-TPH/06 635) BTEX/Metals	WHO TPH/OP 635) VOC/PAH	EPD 54 (Hardis SIM 42 analytes)	TPH Speciation (Aliphatic/Aromatic)	WJ 28 Metals									
1	MW01		Water					x	x													
2	MW02		Water					x	x													
3	MW03		Water					x		x	x		x									
4	MW04		Water					x		x	x	x	x									
5	MW05		Water					x		x	x	x	x									
6	MW06		Water					x		x	x	x	x									
7	MW07		Water					x		x	x	x	x									
8	MW08		Water					x		x	x		x									
9	MW09		Water					x		x	x		x									
10	DUP05		Water																			
	DUP05a SMK		Water						x													
11	MWA (CR13)		Water					x		x	x		x									
12	MWB (CR14)		Water						x													
13	MWC (CR15)		Water						x													
14	Drain		Water					x		x	x		x									
	TOTAL SAMPLES		15					11	6	9	9	4	9									

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Environmental Divisic
Brisbane
Work Order
EB0908932

49-Sch4 - Signature
49-Sch4 - Signature

Telephone : +61-7-3243 7222

SKM
Sinclair Knight Merz Pty Ltd
PO Box 246
SPRING HILL QLD 4004
ABN 37 001 024 095
Ph: +61 7 3244 7100
Fx: +61 7 3244 7306

CHAIN OF CUSTODY & ANALYSIS REQUEST

LAB:
ADDRESS:
PHONE:
FAX:

PROJECT # QE09537
PROJECT NAME Greyhound Qld Ltd.
SAMPLE COLLECTOR'S NAME O. Kovas.
LAB JOB #

PRELIM RESULTS BY: ® VERBAL ® FAX EMAIL

FINAL REPORT BY: 5d TAT
SEND TO EMAIL ADDRESS(ES): Sampler: @skm.com.au Proj Mgr @skm.com.au
LAB QUOTE REF:
SKM ORDER NO:

COMMENTS (see below)

SAMPLE ID	LAB #	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATION METHOD: ICE	ACIDIFIED	OTHER	NONE	SAMPLING DATE	NO. OF CONTAINERS	METHOD CODE & ANALYSIS REQUIRED: TPH/BTEX	metals (8)	VOCs	COMMENTS (see below) (1)	(2)	(3)
(1) Drain 1		/				/	/			9/6	5	/	/	/	®	®	®
															®	®	®
															®	®	®
															®	®	®
															®	®	®
															®	®	®
															®	®	®
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															®	®	®
															®	®	®
															®	®	®
															®	®	®
															®	®	®
TOTALS															®	®	®

Please cc jwicks@skm.com.au all correspondence.

Environmental Division
Brisbane
Work Order
EB0909112
Telephone : +61-7-3243 7222

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Relinquished by (SIGN/PRINT):	Date	Time	Received by (SIGN/PRINT):	Date	Time
49-Sch4 - Signature of SKM	9/6/09	3.30pm	49-Sch4 - Signature of ACS	9/6	1600
Relinquished by (SIGN/PRINT): of	Date	Time	Received by (SIGN/PRINT): of	Date	Time
Relinquished by (SIGN/PRINT): of	Date	Time	Received by (SIGN/PRINT): of	Date	Time

Custody Seals Intact? Yes/No
Sample Receipt Temp. °C

Additional Comments/Instructions:
All final lab reports to be provided electronically as .pdf and datafile to both emails above. (1) Sample highly contaminated; (2) Sample unfiltered – lab to filter prior to metals analysis; (3) TPH chromatogram required in prelim. and final reports (if TPH detected)

SKM

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:** Standard 5-day turnaround. Please send electronic reports to jwicks@skm.com.au & okanas&skm.com.au
Office:	32 Cordelia Street, South Brisbane Qld 4101	**Results Required:**		
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	
Phone:		**Turn Around**	5-days	

Laboratory Use	
Lab Batch No:	**Comments:**
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 18/09/2009	Name: L. ANGELES	Date: 18.9.09	Consignment Note No:
Company: SKM	Time: 1:30 pm	Company: ALS ACS	Time: 1200	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS																
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles		W:5 TPH(C6-C36)/BTEX/Metals	W:10 TPH(C6-C36)/VOC/PAH	EP075A Phenols SIM (12 analytes)	TPH Speciation (Aliphatic/Aromatic)	W:2 8 Metals											
1	MW01		Water	17/9/09			2G, 2V, 1N		x															
2	MW02		Water	17/9/09			2G, 2V, 1N		x															
3	MW03		Water	17/9/09			1G, 2V, 1N			x	x		x											
4	MW04		Water	17/9/09			2G, 2V, 1N			x	x	x	x											
5	MW05		Water	17/9/09			2G, 2V, 1N			x	x	x	x											
6	MW06		Water	17/9/09			2G, 2V, 1N			x	x	x	x											
7	MW07		Water	17/9/09			2G, 2V, 1N			x	x	x	x											
8	MW08		Water	17/9/09			1G, 2V, 1N			x	x	x	x											
9	MW09		Water	17/9/09			1G, 2V, 1N		x															
10	Dup01		Water	17/9/09			2G, 2V, 1N		x															
11	Dup02		Water	17/9/09			2G, 2V, 1N		x															
12	CR13		Water	17/9/09			2G, 2V, 1N			x	x		x											
13	CR14		Water	17/9/09			2G, 2V, 1N		x															
14	CR15		Water	17/9/09			2G, 2V, 1N		x															
15	Drain 1		Water	17/9/09			1G, 2V, 1N			x	x		x											
TOTAL SAMPLES			15						7	8	8	5	8											

16 Trip blank 02 17/9

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Environmental Division
Brisbane
Work Order
EB0914886

49-Sch4 - Signature

Telephone : +61-7-3243 7222

SKM

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	32 Cordelia Street, South Brisbane Qld 4101	**Results Required:**		Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	
Phone:	3026 7526; 3026 7286	**Turn Around**		

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes ' No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 8/10/2009	Name:	Date:	Consignment Note No:
Company: SKM	Time: 12:00 pm	Company: ALS	Time:	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles	
1	MW01		Water	7/10/09			2G, 2V, 1N	
2	MW02		Water	7/10/09			2G, 2V, 1N	
3	MW03		Water	7/10/09			1G, 2V, 1N	
4	MW04		Water	7/10/09			2G, 2V, 1N	
5	MW05		Water	7/10/09			2G, 2V, 1N	
6	MW06		Water	7/10/09			2G, 2V, 1N	
7	MW07		Water	7/10/09			2G, 2V, 1N	
8	MW08		Water	7/10/09			2V, 1N	
9	MW09		Water	7/10/09			1G, 2V, 1N	
10	Dup01		Water	7/10/09			2G, 2V, 1N	
11	Dup02		Water	7/10/09			2G, 2V, 1N	
12	CR13		Water	7/10/09			2G, 2V, 1N	
13	CR14		Water	7/10/09			2G, 2V, 1N	
14	CR15		Water	7/10/09			2G, 2V, 1N	
15	Creek		Water	7/10/09			1G, 2V, 1N	
TOTAL SAMPLES			15					

Analysis to follow from Jeremy Wicks

RTI DL RELEASE - EHP

Christian V.
ALS
8.10.09. 14:50

Environmental Division
~~Brisbane~~
49-Sch4 - Signature ~~Work Order~~
EB0916017

Telephone : +61-7-3243 7222

SKM

SINCLAIR KNIGHT MERZ
CHAIN OF CUSTODY FORM

Project ID:	QE09537
Site:	Cronulla Park

Contact:	Jeremy Wicks	**Quote No:**	EN/003/07	**Comments:**
Office:	32 Cordelia Street, South Brisbane Qld 4101	**Results Required:**		Please send electronic reports to jwicks@skm.com.au & okanas@skm.com.au
Email:	jwicks@skm.com.au; okanas@skm.com.au	**Report Format:**	Email, Hard Copy	
Phone:	3026 7526; 3026 7286	**Turn Around**	7-day	

Laboratory Use	
Lab Batch No:	***Comments:***
Cooler Seal Intact: Yes No N/A	
Sample Temp (chilled): Yes No	

Relinquished By		**Received By**		**Shipping**
Name: Jeremy Wicks	Date: 8/10/2009	Name:	Date:	Consignment Note No:
Company: SKM	Time: 12:00 pm	Company: ALS	Time:	Transport Company:

SAMPLE INFORMATION						CONTAINER INFORMATION		ANALYTICAL REQUIREMENTS	
LAB ID	Sample ID	Sample Depth	Matrix Type S: Soil W: Water	Sample Date	Time	Type / Code	Total Bottles	S-4 TPH/BTEX	TPH (C10-C36) with Silica Gel Cleanup
1	MW01		Water	7/10/09			2G, 2V, 1N	x	x
2	MW02		Water	7/10/09			2G, 2V, 1N	x	x
3	MW03		Water	7/10/09			1G, 2V, 1N	x	x
4	MW04		Water	7/10/09			2G, 2V, 1N	x	x
5	MW05		Water	7/10/09			2G, 2V, 1N	x	x
6	MW06		Water	7/10/09			2G, 2V, 1N	x	x
7	MW07		Water	7/10/09			2G, 2V, 1N	x	x
8	MW08		Water	7/10/09			2V, 1N	x	x
9	MW09		Water	7/10/09			1G, 2V, 1N	x	x
10	Dup01		Water	7/10/09			2G, 2V, 1N	x	x
11	Dup02		Water	7/10/09			2G, 2V, 1N	x	x
12	CR13		Water	7/10/09			2G, 2V, 1N	x	x
13	CR14		Water	7/10/09			2G, 2V, 1N	x	x
14	CR15		Water	7/10/09			2G, 2V, 1N	x	x
15	Creek		Water	7/10/09			1G, 2V, 1N	x	x
	TOTAL SAMPLES		15					15	15

Environmental Division
Brisbane
Work Order
EB0916017
Telephone : + 61-7-3243 7222

RTI DL RELEASE - EHP

Sample Receipt Advice

LabMark
ENVIRONMENTAL LABORATORIES

Customer Service - 1300 552 389

Client Name:	Sinclair Knight Merz	**Date Received:**	18 September 2009
Attention:	MR Jeremy Wicks	**Due Date:**	25 September 2009
Client Reference number:	QE09537 Cronulla Park	**Turnaround:**	Standard

Laboratory Reference Number: 09ENME0031585

Your Laboratory Contact: Rebecca Kleinschmidt
+61 7 3902 4600

If you have any queries regarding turnaround and sample progress, technical queries or wish to make changes please contact the laboratory immediately.

Job Information

Sample Integrity

Attempt to Chill was evident	Yes
Samples correctly preserved	Yes
Organic samples had Teflon liners	Yes
Samples received with Zero Headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes
Custody Seals Intact (if used)	Yes

Analysis Requested

Analysis Requested	Method Code	Number Of Samples
BTEX & (C6-C9) in Water by P&T	1100	2
Dissolved Mercury in Water by FIMS	3400	2
Dissolved Metals in Water By ICP/MS	3100	2
TPH (C10 - C36) in Water by GC	2000	2

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Note

- Turn Around Time starts when samples are received at the Laboratory
- For samples received after 4pm, Turn Around Time starts the next working day
- For samples received on the last day of holding time, notification of testing requirements must be given at least 6 hours prior to the sample receipt deadlines; Should the laboratory not receive the information in the required timeframe a suitably qualified results may still be reported.
- Surcharges may apply for 24, 48 and 72 hour turnaround.
- Water samples will be discarded after 4 weeks unless notified.
- Soil samples are chilled for 1 month and will be discarded after 3 months unless notified.
- Samples submitted for Micro analysis on a Friday may incur a $150 surcharge and / or be analysed outside holding time (24 Hour Holding Time).
- The Quoted Due Date does not apply to sub-contracted tests or some in-house tests. Contact your Customer Support Officer for details
  NOTE: Unless advised otherwise - Sample analysis will commence regardless of integrity issues and / or non-conformance and these will be recorded on the final report.

Logged in by : Nathan Clayton

Date : Fri 18 September 2009

Labmark 1868 Dandenong Rd Clayton VIC Australia 3168
30 008 127 802 Telephone: (03) 9538 2277 Facsimile: (03) 9538 2278

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

RTI DL RELEASE - EHP

Work Order	: **EB0907635**	Page	: 1 of 6
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: 3333	Telephone	: +61-7-3243 7222
Facsimile	: 3333	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: 3333		
C-O-C number	: 3333	Date Samples Received	: 13-MAY-2009
Sampler	: Ona Kanas	Issue Date	: 25-MAY-2009
Site	: 3333		
		No. of samples received	: 34
Quote number	: EN/003/09	No. of samples analysed	: 12

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of ˇ1is report have been checked and approved foˇ release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Kim McCabe	Senior Inorganic Chemist	Inorganics
Sarah Ashworth	Organic Chemist	Organics

33-054

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized 7˜ocedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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 insuffient 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 date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

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

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DL Documents

33-054

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: MW07 0.0-0.1	MW08_0.2-03	MW09_0.0-0.1	Dup 01	MW04_0.2-0.3
Client sampling date / time				12-MAY-2009 15:00	13-MAY-2009 15:00	13-MAY-2009 15:00	13-MAY-2009 15:00	11-MAY-2009 15:00
				EB0907635-003	EB0907635-005	EB0907635-008	EB0907635-010	EB0907635-013
EA002 : pH (Soils)								
pH Value	3333	0.1	pH Unit	**5.5**	3333	3333	3333	**5.5**
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	3333	1.0	I	**11.5**	**14.3**	**22.7**	**12.1**	**12.9**
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	)	mg/kg	**13**	**11**	**12**	**9**	**16**
Copper	7440-50-8	5	mg/kg	**5**	<5	<5	<5	**6**
Lead	7439-92-1	5	mg/kg	**7**	<5	<5	<5	**11**
Nickel	7440-02-0	)	mg/kg	**4**	G)	G)	G)	**4**
Zinc	7440-66-6	5	mg/kg	**31**	<5	<5	<5	**17**
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	3333	10	mg/kg	<10	3333	3333	3333	<10
C10 - C14 Fraction	3333	50	mg/kg	<50	3333	3333	3333	<50
C15 - C28 Fraction	3333	100	mg/kg	<100	3333	3333	3333	<100
C29 - C36 Fraction	3333	100	mg/kg	<100	3333	3333	3333	<100
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	3333	3333	3333	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	3333	3333	3333	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	3333	3333	3333	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	3333	3333	3333	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	3333	3333	3333	<0.5
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	I	**89.6**	3333	3333	3333	**91.5**
Toluene-D8	2037-26-5	0.1	I	**83.4**	3333	3333	3333	**86.5**
4-Bromofluorobenzene	460-00-4	0.1	I	**80.9**	3333	3333	3333	**83.7**

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Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: MW05_0.2-0.3	MW06_0.2-0.3	MW01_0.2-0.3	MW02_0.2-0.3	3333
				Client sampling date / time: 12-MAY-2009 15:00	12-MAY-2009 15:00	11-MAY-2009 15:00	11-MAY-2009 15:00	3333
				EB0907635-016	EB0907635-019	EB0907635-022	EB0907635-026	----
EA002 : pH (Soils)								
pH Value	3333	0.1	pH Unit	**6.4**	3333	3333	**5.7**	3333
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	3333	1.0	I	**9.2**	**10.7**	**7.5**	**16.7**	3333
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	3333
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	3333
Chromium	7440-47-3	)	mg/kg	**21**	**14**	**9**	**28**	3333
Copper	7440-50-8	5	mg/kg	**16**	<5	<5	<5	3333
Lead	7439-92-1	5	mg/kg	**8**	<5	**8**	**18**	3333
Nickel	7440-02-0	)	mg/kg	**10**	**3**	G)	**3**	3333
Zinc	7440-66-6	5	mg/kg	**21**	**6**	<5	**18**	3333
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	3333
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	3333	10	mg/kg	<10	3333	3333	<10	3333
C10 - C14 Fraction	3333	50	mg/kg	<50	3333	3333	<50	3333
C15 - C28 Fraction	3333	100	mg/kg	<100	3333	3333	<100	3333
C29 - C36 Fraction	3333	100	mg/kg	<100	3333	3333	<100	3333
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	3333	3333	<0.2	3333
Toluene	108-88-3	0.5	mg/kg	<0.5	3333	3333	<0.5	3333
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	3333	3333	<0.5	3333
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	3333	3333	<0.5	3333
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	3333	3333	<0.5	3333
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	I	**94.6**	3333	3333	**89.2**	3333
Toluene-D8	2037-26-5	0.1	I	**85.1**	3333	3333	**84.2**	3333
4-Bromofluorobenzene	460-00-4	0.1	I	**80.6**	3333	3333	**80.5**	3333

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: RINSATE 1	RINSATE 2	RINSATE 3	3333	3333
				Client sampling date / time: 11-MAY-2009 15:00	12-MAY-2009 15:00	13-MAY-2009 15:00	3333	3333
				EB0907635-001	EB0907635-002	EB0907635-007	----	----
EA005: pH								
pH Value	3333	0.01	pH Unit	3333	3333	**6.85**	3333	3333
EG020T: Total Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	3333	3333
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	3333	3333
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	3333	3333
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	3333	3333
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	3333	3333
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	3333	3333
Zinc	7440-66-6	0.005	mg/L	**0.005**	**0.008**	<0.005	3333	3333
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	3333	3333
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	3333	20	µg/L	<20	<20	<20	3333	3333
C10 - C14 Fraction	3333	50	µg/L	<50	<50	<50	3333	3333
C15 - C28 Fraction	3333	100	µg/L	<100	<100	<100	3333	3333
C29 - C36 Fraction	3333	50	µg/L	<50	<50	<50	3333	3333
EP080: BTEX								
Benzene	71-43-2	1	µg/L	<1	<1	<1	3333	3333
Toluene	108-88-3	)	µg/L	G)	G)	G)	3333	3333
Ethylbenzene	100-41-4	)	µg/L	G)	G)	G)	3333	3333
meta- & para-Xylene	108-38-3 106-42-3	)	µg/L	G)	G)	G)	3333	3333
ortho-Xylene	95-47-6	)	µg/L	G)	G)	G)	3333	3333
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060-07-0	0.1	I	**102**	**97.0**	**101**	3333	3333
Toluene-D8	2037-26-5	0.1	I	**99.7**	**98.5**	**101**	3333	3333
4-Bromofluorobenzene	460-00-4	0.1	I	**100**	**96.7**	**100**	3333	3333

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Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	80	121
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	80	120
Toluene-D8	2037-26-5	99	110
4-Bromofluorobenzene	460-00-4	86	115

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

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Work Order	: **EB0907635**	Page	: of 9
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: 1111	Telephone	: +61-7-3243 7222
Facsimile	: 1111	Facsimile	: +61-7-3243 7219
Pro:ect	: QE09537	QC Level	: NEP; 1999 Schedule B<$=and ALS QCS3 re>uirement
Site	: 1111		
C-O-C number	: 1111	Date Samples Received	: $1; ˜ ?-2009
Sampler	: Ona Kanas	Issue Date	: %0,1 ˜ ?-2009
Order number	: 1111		
		No. of samples received	: $,
Quote number	: EN@$ @9	No. of samples analysed	: %

This report supersedes any previous report<s= Aith this reference. Results apply to the sample<s= as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the folloAing information:

- Laboratory Duplicate <DUP=Report; Relative Percentage Difference <RPD=and Acceptance Limits
- ; ethod Blank <; ˙ =and Laboratory Control Spike <LCS=Report; Recovery and Acceptance Limits
- ; atrix Spike <; ! =Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 9%0

This document is issued in accordance Aith NATA accreditation re>uirements.

Accredited for compliance Aith '!¸ @EC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated beloA. Electronic signing has been carried out in compliance Aith procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Kim ; cCabe	Senior Inorganic Chemist	Inorganics
Sarah AshAorth	Organic Chemist	Organics

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General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEP; . In house developed procedures are employed in the absence of documented standards or by client re>uest.

E here moisture determination has been performed, results are reported on a dry Aeight basis.

E here a reported less than <>=result is higher than the LOR, this may be due to primary sample extract@igestate dilution and@r insuffient sample for analysis.

E here the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample <reduced Aeight employed=or matrix interference.

Key : Anonymous = Refers to samples Ahich are not specifically part of this Aork 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

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Laboratory Duplicate (DUP) Report

The >uality 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 ; ethod * E '-EN@9 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result betAeen 10 and 20 times LOR:- 0K - 50K ; Result L 20 times LOR:- 0K - 20K 4

Sub-; atrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 980873)									
EB0907635-010	Dup 01	EA055-103: ; oisture Content <dried @ 103MC=	1111	4-	K	%4	$4-	84%	-K - 50K
EB090769 1--%	Anonymous	EA055-103: ; oisture Content <dried @ 103MC=	1111	4-	K	047	04-	%4	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 985255)									
EB0907635-003	;E 07 0.0-0.1	EG005T: Cadmium	7440-43-9		ˇ g@g	>	>	-4-	No Limit
		EG005T: Chromium	8,,-1,81$	%	ˇ g@g	$	0	47	No Limit
		EG005T: Nickel	8,,-1-%1-	%	ˇ g@g	,	$	-4-	No Limit
		EG005T: Arsenic	8,,-1$ 91%	0	ˇ g@g	>0	>0	-4-	No Limit
		EG005T: Copper	8,,-10-1 9	0	ˇ g@g	0	0	-4-	No Limit
		EG005T: Lead	7439-92-1	0	ˇ g@g	8	9	749	No Limit
		EG005T: Zinc	8,,-17717	0	ˇ g@g	$	$%	$49	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 985256)									
EB0907635-003	;E 07 0.0-0.1	EG035T: ; ercury	7439-97-6	-4	mg@g	>-4	>-4	-4-	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 978470)									
EB0907635-003	;E 07 0.0-0.1	EP090: C6 - C9 Fraction	1111	-	mg@g	> -	> -	-4-	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 984863)									
EB09079701--	Anonymous	EP071: C15 - C29 Fraction	1111	-	mg@g	> --	> --	-4-	No Limit
		EP071: C29 - C36 Fraction	1111	--	mg@g	> --	> --	-4-	No Limit
		EP071: C10 - C14 Fraction	1111	0-	mg@g	>0-	>0-	-4-	No Limit
EB09079701- $	Anonymous	EP071: C15 - C29 Fraction	1111	--	mg@g	-	> --	-4-	No Limit
		EP071: C29 - C36 Fraction	1111	--	mg@g	> --	> --	-4-	No Limit
		EP071: C10 - C14 Fraction	1111	0-	mg@g	>0-	>0-	-4-	No Limit
EP080: BTEX (QC Lot: 978470)									
EB0907635-003	;E 07 0.0-0.1	EP090: Benzene	8 1,$1%	-4%	mg@g	>-4%	>-4%	-4-	No Limit
		EP090: Toluene	- 91991$	-40	mg@g	>-40	>-40	-4-	No Limit
		EP090: Ethylbenzene	--1, 1,	-40	mg@g	>-40	>-40	-4-	No Limit
		EP090: meta- N para-Oylene	- 91$9-3 -71,%1$	-40	mg@g	>-40	>-40	-4-	No Limit
		EP090: ortho-Oylene	95-47-6	-40	mg@g	>-40	>-40	-4-	No Limit

Sub-; atrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA005: pH (QC Lot: 978565)									
EB0907525-002	Anonymous	EA005: pH Palue	1111	-4-	pH Unit	7.99	7.99	-4-	-K - 20K
EB0907621-004	Anonymous	EA005: pH Palue	1111	-4-	pH Unit	84 0	84@0	9.3	-K - 20K
EG020T: Total Metals by ICP-MS (QC Lot: 981671)									

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Sub-; atrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 981671) - continued									
EB0907437-001	Anonymous	EG020A-T: Cadmium	7440-43-9	-4---	mg@	-4---8	-4---8	-4-	No Limit
		EG020A-T: Arsenic	8,,-1$ 91%	-4--	mg@	-4--%	-4--	-4-	No Limit
		EG020A-T: Chromium	8,,-1,81$	-4--	mg@	-4--$	-4--,	-4-	No Limit
		EG020A-T: Copper	8,,-10-1 9	-4--	mg@	-4--%	-4--%	-4-	No Limit
		EG020A-T: Lead	7439-92-1	-4--	mg@	>-4--	>-4--	-4-	No Limit
		EG020A-T: Nickel	8,,-1-%1-	-4--	mg@	-4-- 9	0.009	-4-	No Limit
		EG020A-T: Zinc	8,,-17717	-4--0	mg@	0.059	-4-00	84	- K - 50K
EB0907741-003	Anonymous	EG020A-T: Cadmium	7440-43-9	-4---	mg@	>-4---	>-4---	-4-	No Limit
		EG020A-T: Arsenic	8,,-1$ 91%	-4--	mg@	-4--	-4--%	-4-	No Limit
		EG020A-T: Chromium	8,,-1,81$	-4--	mg@	-4--%	-4--$	-4-	No Limit
		EG020A-T: Copper	8,,-10-1 9	-4--	mg@	-4--,	-4--,	-4-	No Limit
		EG020A-T: Lead	7439-92-1	-4--	mg@	-4--	-4--%	-4-	No Limit
		EG020A-T: Nickel	8,,-1-%1-	-4--	mg@	-4--%	-4--$	-4-	No Limit
		EG020A-T: Zinc	8,,-17717	-4--0	mg@	-4- -	-4-- 9	%04%	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 983852)									
EB0907527-002	Anonymous	EG020A-T: Cadmium	7440-43-9	-4---	mg@	-4---%	>-4---	-4-	No Limit
		EG020A-T: Arsenic	8,,-1$ 91%	-4--	mg@	-4--	>-4--	-4-	No Limit
		EG020A-T: Chromium	8,,-1,81$	-4--	mg@	>-4--	>-4--	-4-	No Limit
		EG020A-T: Copper	8,,-10-1 9	-4--	mg@	-4- 8	-4- 8	-4-	- K - 50K
		EG020A-T: Lead	7439-92-1	-4--	mg@	-4--	-4--%	-4-	No Limit
		EG020A-T: Nickel	8,,-1-%1-	-4--	mg@	-4--$	-4--$	-4-	No Limit
		EG020A-T: Zinc	8,,-17717	-4--0	mg@	-4-08	-4-08	-4-	- K - 50K
EB0907713-007	Anonymous	EG020A-T: Cadmium	7440-43-9	-4---	mg@	-4---,	-4---,	-4-	No Limit
		EG020A-T: Arsenic	8,,-1$ 91%	-4--	mg@	-4-,%	-4-,$	2.9	- K - 20K
		EG020A-T: Chromium	8,,-1,81$	-4--	mg@	0.009	0.009	-4-	No Limit
		EG020A-T: Copper	8,,-10-1 9	-4--	mg@	-4-%	-4-%	-4-	- K - 20K
		EG020A-T: Lead	7439-92-1	-4--	mg@	-4-, 9	-4-,8	-4-	- K - 20K
		EG020A-T: Nickel	8,,-1-%1-	-4--	mg@	-4--8	-4-- 9	-4-	No Limit
		EG020A-T: Zinc	8,,-17717	-4--0	mg@	-4$%0	-4$$,	%48	- K - 20K
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 978477)									
EB0907607-001	Anonymous	EP090: C6 - C9 Fraction	1111	%-	Qg@	>%-	>%-	-4-	No Limit
EB0907635-001	RINSATE 1	EP090: C6 - C9 Fraction	1111	%-	Qg@	>%-	>%-	-4-	No Limit
EP080: BTEX (QC Lot: 978477)									
EB0907607-001	Anonymous	EP090: Benzene	8 1,$1%		Qg@	>	>	-4-	No Limit
		EP090: Toluene	- 91991$	%	Qg@	>%	>%	-4-	No Limit
		EP090: Ethylbenzene	--1, 1,	%	Qg@	>%	>%	-4-	No Limit
		EP090: meta- N para-Oylene	- 91$9-3 -71,%1$	%	Qg@	>%	>%	-4-	No Limit
		EP090: ortho-Oylene	95-47-6	%	Qg@	>%	>%	-4-	No Limit

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Sub-; atrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEX (QC Lot: 978477) - continued									
EB0907635-001	RINSATE 1	EP090: Benzene	8 1,$1%		Qg@	>	>	-4-	No Limit
		EP090: Toluene	- 9199 1$	%	Qg@	>%	>%	-4-	No Limit
		EP090: Ethylbenzene	--1, 1,	%	Qg@	>%	>%	-4-	No Limit
		EP090: meta- N para-Oylene	- 91$9-3 -71,%1$	%	Qg@	>%	>%	-4-	No Limit
		EP090: ortho-Oylene	95-47-6	%	Qg@	>%	>%	-4-	No Limit

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

The >uality control term ; ethod @Laboratory Blank refers to an analyte free matrix to Ahich 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 >uality control term Laboratory Control Sample <LCS= refers to a certified reference material, or a knoAn interference free matrix spiked Aith 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-; atrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EA002 : pH (Soils) (QCLot: 980865)								
EA002: pH Palue	1111	-4	pH Unit	1111	5.2 pH Unit	-	90	0
EG005T: Total Metals by ICP-AES (QCLot: 985255)								
EG005T: Arsenic	8,,-1$ 91%	0	ˇ g@g	>0	$49 mg@g	%	89	%,
EG005T: Cadmium	7440-43-9		ˇ g@g	>	%42 mg@g	-,	88	8
EG005T: Chromium	8,,-1,81$	%	ˇ g@g	>%	61.6 mg@g		9$	119
EG005T: Copper	8,,-10-1 9	0	ˇ g@g	>0	54.7 mg@g	-8	9%	%%
EG005T: Lead	7439-92-1	0	ˇ g@g	>0	55.5 mg@g	99.4	9$	8
EG005T: Nickel	8,,-1-%1-	%	ˇ g@g	>%	55.1 mg@g	-,	9$	%
EG005T: Zinc	8,,-17717	0	ˇ g@g	>0	105 mg@g	-7	9%	%-
EG035T: Total Recoverable Mercury by FIMS (QCLot: 985256)								
EG035T: ; ercury	7439-97-6	-4	mg@g	>-4	1111	1111	1111	1111
		-4 -	mg@g	1111	1.34 mg@g	99.9	89	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978470)								
EP090: C6 - C9 Fraction	1111	-	mg@g	> -	16 mg@g	91.5	8	%$
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984863)								
EP071: C10 - C14 Fraction	1111	0-	mg@g	>0-	259 mg@g	9-4,	70	%
EP071: C15 - C29 Fraction	1111	--	mg@g	> --	524 mg@g	79.4	874%	%%
EP071: C29 - C36 Fraction	1111	--	mg@g	> --	1111	1111	1111	1111
EP080: BTEX (QCLot: 978470)								
EP090: Benzene	8 1,$1%	-4%	mg@g	>-4%	1 mg@g	92.9	89	%
EP090: Toluene	- 91991$	-40	mg@g	>-40	1 mg@g	974	89	%
EP090: Ethylbenzene	--1, 1,	-40	mg@g	>-40	1 mg@g	92.7	8%	119
EP090: meta- N para-Oylene	- 91$9-3 -71,%1$	-40	mg@g	>-40	2 mg@g	91.5	77	%
EP090: ortho-Oylene	95-47-6	-40	mg@g	>-40	1 mg@g	90.9	8-	9

Sub-; atrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EA005: pH (QCLot: 978565)								
EA005: pH Palue	1111	-4-	pH Unit	1111	7.00 pH Unit	--	9%	9
EG020T: Total Metals by ICP-MS (QCLot: 981671)								
EG020A-T: Arsenic	8,,-1$ 91%	-4--	mg@	>-4--	0.100 mg@	95.6	8,	,
EG020A-T: Cadmium	7440-43-9	-4---	mg@	>-4---	0.100 mg@	994,	8,	1 9

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Sub-; atrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 981671) - continued								
EG020A-T: Chromium	8,,-1,81$	-4--	mg@	>-4--	0.100 mg@	99.2	9	%8
EG020A-T: Copper	8,,-10-1 9	-4--	mg@	>-4--	0.200 mg@	97.5	80	119
EG020A-T: Lead	7439-92-1	-4--	mg@	>-4--	0.100 mg@	99.5	9-	7
EG020A-T: Nickel	8,,-1-%1-	-4--	mg@	>-4--	0.100 mg@	994%	80	%
EG020A-T: Zinc	8,,-17717	-4--0	mg@	>-4--0	0.200 mg@	99.0	8$	%8
EG020T: Total Metals by ICP-MS (QCLot: 983852)								
EG020A-T: Arsenic	8,,-1$ 91%	-4--	mg@	>-4--	0.100 mg@	94.4	8,	,
EG020A-T: Cadmium	7440-43-9	-4---	mg@	>-4---	0.100 mg@	- 9	8,	1 9
EG020A-T: Chromium	8,,-1,81$	-4--	mg@	>-4--	0.100 mg@		9	%8
EG020A-T: Copper	8,,-10-1 9	-4--	mg@	>-4--	0.200 mg@	-7	80	119
EG020A-T: Lead	7439-92-1	-4--	mg@	>-4--	0.100 mg@	-%	9-	7
EG020A-T: Nickel	8,,-1-%1-	-4--	mg@	>-4--	0.100 mg@	-,	80	%
EG020A-T: Zinc	8,,-17717	-4--0	mg@	>-4--0	0.200 mg@	109	8$	%8
EG035T: Total Recoverable Mercury by FIMS (QCLot: 979405)								
EG035T: ; ercury	7439-97-6	-4---	mg@	>-4---	0.0100 mg@	99.7	9%	%%
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978477)								
EP090: C6 - C9 Fraction	1111	%-	Qg@	>%-	160 Qg@	96.5	8$	$0
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978693)								
EP071: C10 - C14 Fraction	1111	0-	Qg@	>0-	600 Qg@	7,47	49	-
EP071: C15 - C29 Fraction	1111	--	Qg@	>--	1020 Qg@	8%9	09	$-
EP071: C29 - C36 Fraction	1111	0-	Qg@	>0-	1111	1111	1111	1111
EP080: BTEX (QCLot: 978477)								
EP090: Benzene	8 1,$1%		Qg@	>	10 Qg@	94.4	8847	%%
EP090: Toluene	- 9199 1$	%	Qg@	>%	10 Qg@	94.7	8,	%%
EP090: Ethylbenzene	--1, 1,	%	Qg@	>%	10 Qg@	96.1	8$	%7
EP090: meta- N para-Oylene	- 91$9-3 -71,%1$	%	Qg@	>%	20 Qg@	95.1	8-4,	129
EP090: ortho-Oylene	95-47-6	%	Qg@	>%	10 Qg@	94.6	8,4$	%7

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Matrix Spike (MS) Report

The >uality control term ; atrix Spike <; ! = refers to an intralaboratory split sample spiked Aith 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 Ob:ectives <DQOs=. Ideal recovery ranges stated may be Aaived in the event of sample matrix interference.

Sub-; atrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%) MS	Recovery Limits (%) Low	High
EG005T: Total Metals by ICP-AES (QCLot: 985255)							
EB0907635-005	;E - 9R-4%1-$	EG005T: Arsenic	8,,-1$ 91%	50 mg@g	97.9	8-	$-
		EG005T: Cadmium	7440-43-9	25 mg@g	-7	8-	$-
		EG005T: Chromium	8,,-1,81$	50 mg@g	- 9	8-	$-
		EG005T: Copper	8,,-10-1 9	50 mg@g	-,	8-	$-
		EG005T: Lead	7439-92-1	50 mg@g	99.6	8-	$-
		EG005T: Nickel	8,,-1-%1-	50 mg@g	-7	8-	$-
		EG005T: Zinc	8,,-17717	50 mg@g	-$	8-	$-
EG035T: Total Recoverable Mercury by FIMS (QCLot: 985256)							
EB0907635-005	;E - 9R-4%1-$	EG035T: ; ercury	7439-97-6	5.0 mg@g	9$4-	8-	$-
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978470)							
EB0907635-013	;E -, R-4%1-4$	EP090: C6 - C9 Fraction	1111	%0 mg@g	8748	8-	$-
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984863)							
EB0907635-013	;E -, R-4%1-4$	EP071: C10 - C14 Fraction	1111	259 mg@g	8,4	8-	$-
		EP071: C15 - C29 Fraction	1111	524 mg@g	8947	8-	$-
EP080: BTEX (QCLot: 978470)							
EB0907635-013	;E -, R-4%1-4$	EP090: Benzene	8-1,$1%	2 mg@g	94.5	8-	$-
		EP090: Toluene	- 91991$	2 mg@g	9747	8-	$-

Sub-; atrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%) MS	Recovery Limits (%) Low	High
EG020T: Total Metals by ICP-MS (QCLot: 981671)							
EB0907437-002	Anonymous	EG020A-T: Arsenic	8,,-1$ 91%	1.000 mg@	-%	8-	$-
		EG020A-T: Cadmium	7440-43-9	0.500 mg@	9940	8-	$-
		EG020A-T: Chromium	8,,-1,81$	1.000 mg@	994,	8-	$-
		EG020A-T: Copper	8,,-10-1 9	1.000 mg@	94.7	8-	$-
		EG020A-T: Lead	7439-92-1	1.000 mg@	92.2	8-	$-
		EG020A-T: Nickel	8,,-1-%1-	1.000 mg@	97.2	8-	$-
		EG020A-T: Zinc	8,,-17717	1.000 mg@	97.7	8-	$-
EG020T: Total Metals by ICP-MS (QCLot: 983852)							
EB0907635-007	RINSATE 3	EG020A-T: Arsenic	8,,-1$ 91%	1.000 mg@	-7	8-	$-
		EG020A-T: Cadmium	7440-43-9	0.500 mg@	-8	8-	$-
		EG020A-T: Chromium	8,,-1,81$	1.000 mg@	-%	8-	$-
		EG020A-T: Copper	8,,-10-1 9	1.000 mg@	-%	8-	$-

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Sub-; atrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: Spike Recovery (%) MS	Matrix Spike (MS) Report: Recovery Limits (%) Low	Matrix Spike (MS) Report: Recovery Limits (%) High
EG020T: Total Metals by ICP-MS (QCLot: 983852) - continued							
EB0907635-007	RINSATE 3	EG020A-T: Lead	7439-92-1	1.000 mg@	-0	8-	$-
		EG020A-T: Nickel	8,,-1-%1-	1.000 mg@	-	8-	$-
		EG020A-T: Zinc	8,,-17717	1.000 mg@	-0	8-	$-
EP080/071: Total Petroleum Hydrocarbons (QCLot: 978477)							
EB0907623-013	Anonymous	EP090: C6 - C9 Fraction	1111	140 Qg@	8,48	8-	$-
EP080: BTEX (QCLot: 978477)							
EB0907623-013	Anonymous	EP090: Benzene	8 1,$1%	10 Qg@	9 4-	8-	$-
		EP090: Toluene	- 91991$	10 Qg@	884	8-	$-

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Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

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Work Order	: **EB0907635**	Page	: of 9
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET ¸(, TH BRISBANE QLD, A, STRALIA 4101	Address	: 32 S1and Street Stafford QLD Australia 4053
E3mail	: o4anas5 ˙4˘ 6com6au	E3mail	: Services6Brisbane5 alsenviro6com
Tele71one	: 3333	Tele71one	: 81 3233243 7222
Facsimile	: 3333	Facsimile	: 81 3233243 7218
Project	: QE09537	QC Level	: NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Site	: 3333		
C3(3C number	: 3333	Date Sam7les Received	: * 3% 9 32009
Sam7ler	: Ona Kanas	Issue Date	: +03% 9 32009
Order number	: 3333		
		No6of sam7les received	: *.
Quote number	: EN/003/09	No6of sam7les analysed	: +

T1is re7ort su7ersedes any 7revious re7ort(s) wit1 t1is reference6Results a77ly to t1e sam7le(s) as submitted6All 7ages of t1is re7ort 1ave been c1ec4ed and a77roved for release6

T1is Inter7retive Quality Control Re7ort contains t1e following information:

- Analysis Holding Time Com7liance
- Quality Control Parameter Frequency Com7liance
- Brief Met1od Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 S1and Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 FaD61 3233243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

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Analysis Holding Time Compliance

T1e following re7ort summarises eDraction / 7re7aration and analysis times and com7ares wit1 recommended 1olding times6 Dates re7orted re7resent first date of eDraction or analysis and 7recludes subsequent dilutions and reruns6 Information is also 7rovided re t1e sam7le container 67reservative) from ; 1ic1 t1e analysis aliquot was ta4en6 Ela7sed 7eriod to analysis re7resents number of days from sam7ling ; 1ere no eDraction / digestion is involved or 7eriod from eDraction / digestion ; 1ere t1is is 7resent6 For com7osite sam7les, sam7ling date is assumed to be t1at of t1e oldest sam7le contributing to t1e com7osite6 Sam7le date for laboratory 7roduced leac1ates is assumed as t1e com7letion date of t1e leac1ing 7rocess6 Outliers for 1olding time are based on , SEPA ¸ E 4.1 , APHA, AS and NEPM (19997 6 A listing of breac1es is 7rovided in t1e Summary of Outliers6

Holding times for leac1ate met1ods (eDcluding elutriates) vary according to t1e analytes being determined on t1e resulting solution6 For non3volatile analytes, t1e 1olding time com7liance assessment com7ares t1e leac1 date wit1 t1e ˙1ortest analyte 1olding time for t1e equivalent soil met1od6 T1ese soil 1olding times are: Organics (14 days); Mercury (28 days) & ot1er metals (180 days7 6 A recorded breac1 t1erefore does not guarantee a breac1 for all non3volatile 7arameters6

MatriD: **SOIL** Evaluation: × H Holding time breac1 ; ✓ H E it1in 1olding time6

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA002 : pH (Soils)								
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3'6-	%E /+>/ 6+3'6'	**11-MAY-2009**	**18-MAY-2009**	4 3% 9 32009	✓	**18-MAY-2009**	4 3% 9 32009	✓
Soil Glass Jar - Unpreserved								
%E 07 06'3'6-	%E /0>/ 6+3'6'	**12-MAY-2009**	**18-MAY-2009**	193% 9 32009	✓	**18-MAY-2009**	4 3% 9 32009	✓
EA055: Moisture Content								
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3'6- %E /+>/ 6+3'6'	%E / >/ 6+3'6-	**11-MAY-2009**	**----**	3333	3333	**18-MAY-2009**	4 3% 9 32009	✓
Soil Glass Jar - Unpreserved								
%E 07 06'3'6- %E /1>/ 6+3'6'	%E /0>/ 6+3'6-	**12-MAY-2009**	**----**	3333	3333	**18-MAY-2009**	193% 9 32009	✓
Soil Glass Jar - Unpreserved								
%E /4>/ 6+3'*- Du7 01	%E 09_06'3'6-	**13-MAY-2009**	**----**	3333	3333	**18-MAY-2009**	+/ 3% 9 32009	✓
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3'6- %E /+>/ 6+3'6'	%E / >/ 6+3'6-	**11-MAY-2009**	**22-MAY-2009**	/2 3'(? 32009	✓	**22-MAY-2009**	/2 3'(? 32009	✓
Soil Glass Jar - Unpreserved								
%E 07 06'3'6- %E /1>/ 6+3'6'	%E /0>/ 6+3'6-	**12-MAY-2009**	**22-MAY-2009**	/4 3'(? 32009	✓	**22-MAY-2009**	/4 3'(? 32009	✓
Soil Glass Jar - Unpreserved								
%E /4>/ 6+3'*- Du7 01	%E 09_06'3'6-	**13-MAY-2009**	**22-MAY-2009**	093'(? 32009	✓	**22-MAY-2009**	093'(? 32009	✓

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MatriD: **SOIL**

Evaluation: × HHolding time breac1 ; ✓ HE it1in 1olding time6

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3 6-	%E / >/ 6+3 6-	11-MAY-2009	22-MAY-2009	/2 3(? 32009	✓	22-MAY-2009	/4 3@˜ 32009	✓
%E /+>/ 6+3 6								
Soil Glass Jar - Unpreserved								
%E 07 06 3 6-	%E /0>/ 6+3 6-	12-MAY-2009	22-MAY-2009	/4 3(? 32009	✓	22-MAY-2009	093@˜ 32009	✓
%E /1>/ 6+3 6								
Soil Glass Jar - Unpreserved								
%E /4>/ 6+3*-	%E 09_06 3 6-	13-MAY-2009	22-MAY-2009	093(? 32009	✓	22-MAY-2009	/ 3@˜ 32009	✓
Du7 01								
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3 6-	%E /+>/ 6+3 6	11-MAY-2009	14-MAY-2009	+03% 9 32009	✓	14-MAY-2009	+03% 9 32009	✓
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3 6-	%E /+>/ 6+3 6	11-MAY-2009	21-MAY-2009	+03% 9 32009	✓	22-MAY-2009	*/ 3@˜ 32009	✓
Soil Glass Jar - Unpreserved								
%E 07 06 3 6-	%E /0>/ 6+3 6	12-MAY-2009	14-MAY-2009	+13% 9 32009	✓	14-MAY-2009	+13% 9 32009	✓
Soil Glass Jar - Unpreserved								
%E 07 06 3 6-	%E /0>/ 6+3 6	12-MAY-2009	21-MAY-2009	+13% 9 32009	✓	22-MAY-2009	*/ 3@˜ 32009	✓
EP080: BTEX								
Soil Glass Jar - Unpreserved								
%E /.>/ 6+3 6-	%E /+>/ 6+3 6	11-MAY-2009	14-MAY-2009	+03% 9 32009	✓	14-MAY-2009	+03% 9 32009	✓
Soil Glass Jar - Unpreserved								
%E 07 06 3 6-	%E /0>/ 6+3 6	12-MAY-2009	14-MAY-2009	+13% 9 32009	✓	14-MAY-2009	+13% 9 32009	✓

MatriD: **WATER**

Evaluation: × HHolding time breac1 ; ✓ HE it1in 1olding time6

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA005: pH							
Amber Glass Bottle - Unpreserved							
RINSATE 3	13-MAY-2009	----	3333	3333	13-MAY-2009	* 3% 9 32009	✓
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Unfiltered; Lab-acidified							
RINSATE 1	11-MAY-2009	18-MAY-2009	/2 3(? 32009	✓	18-MAY-2009	/2 3(? 32009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified							
RINSATE 2	12-MAY-2009	18-MAY-2009	/4 3(? 32009	✓	18-MAY-2009	/4 3(? 32009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified							
RINSATE 3	13-MAY-2009	22-MAY-2009	093(? 32009	✓	22-MAY-2009	093(? 32009	✓

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MatriD: **WATER**

Evaluation: × HHolding time breac1 ; ✓ HE it1in 1olding time6

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Unfiltered; Lab-acidified RINSATE 1	**11-MAY-2009**	**----**	3333	3333	**15-MAY-2009**	/4 3@˜ 32009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified RINSATE 2	**12-MAY-2009**	**----**	3333	3333	**15-MAY-2009**	093@˜ 32009	✓
Clear Plastic Bottle - Unfiltered; Lab-acidified RINSATE 3	**13-MAY-2009**	**----**	3333	3333	**15-MAY-2009**	/ 3@˜ 32009	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved RINSATE 1	**11-MAY-2009**	**15-MAY-2009**	4 3% 9 32009	✓	**17-MAY-2009**	+. 3@˜ 32009	✓
Amber Glass Bottle - Unpreserved RINSATE 2	**12-MAY-2009**	**15-MAY-2009**	193% 9 32009	✓	**17-MAY-2009**	+. 3@˜ 32009	✓
Amber Glass Bottle - Unpreserved RINSATE 3	**13-MAY-2009**	**15-MAY-2009**	+/ 3% 9 32009	✓	**17-MAY-2009**	+. 3@˜ 32009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 1	**11-MAY-2009**	**---**	333	3333	**14-MAY-2009**	+03% 9 32009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 2	**12-MAY-2009**	**---**	333	3333	**14-MAY-2009**	+13% 9 32009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 3	**13-MAY-2009**	**---**	333	3333	**14-MAY-2009**	+23% 9 32009	✓
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4 RINSATE 1	**11-MAY-2009**	**---**	333	3333	**14-MAY-2009**	+03% 9 32009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 2	**12-MAY-2009**	**---**	333	3333	**14-MAY-2009**	+13% 9 32009	✓
Amber VOC Vial - HCl or NaHSO4 RINSATE 3	**13-MAY-2009**	**---**	333	3333	**14-MAY-2009**	+23% 9 32009	✓

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Quality Control Parameter Frequency Compliance

T1e following re7ort summarises t1e frequency of laboratory QC sam7les analysed wit1in t1e analytical lot(s) in w1ic1 t1e submitted sam7le(s) was(w1ere) 7rocessed6Actual rate s1ould be greater t1an or equal to t1e eD7ected rate6A listing of breac1es is 7rovided in t1e Summary of Outliers6

MatriD: **SOIL**

Evaluation: × H Quality Control fre8uency not wit1in s7ecification < ✓ H Quality Control fre8uency wit1in s7ecification6

Quality Control Sam7le Ty7e		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Du7licates (D, P)							
Moisture Content	EA055 3/*	+	9	**10.5**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	9	**11.1**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	1	9	**11.1**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071	+	9	**10.5**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**25.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Laboratory Control Sam7les (LCS)							
7H (1:5)	EA002		*	**7.7**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	9	**11.1**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	1	9	**11.1**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071		9	**5.3**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**25.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Met1od Blan4s (MB)							
Total Mercury by FIMS	EG035T	1	9	**11.1**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	1	9	**11.1**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071		9	**5.3**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**25.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
MatriDS7i4es (MS)							
Total Mercury by FIMS	EG035T	1	9	**11.1**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	1	9	**11.1**	**5.0**	✓	ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071		9	**5.3**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**25.0**	**5.0**	✓	ALS QCS3 requirement

MatriD: **WATER**

Evaluation: × H Quality Control fre8uency not wit1in s7ecification < ✓ H Quality Control fre8uency wit1in s7ecification6

Quality Control Sam7le Ty7e		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Du7licates (D, P)							
7$	EA005	+	9	**10.5**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3MS 3Suite A	EG020A3T	.	. /	**10.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	+	.	**14.3**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Laboratory Control Sam7les (LCS)							
7$	EA005	+	9	**10.5**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T		+ /	**5.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3MS 3Suite A	EG020A3T	+	. /	**5.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071		*	**7.7**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**7.1**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement

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MatriD: **WATER**

Evaluation: × H Quality Control fre8uency not wit1in s7ecification < ✓ H Quality Control fre8uency wit1in s7ecification6

Quality Control Sam7le Ty7e		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Met1od Blan4s (MB)							
Total Mercury by FIMS	EG035T		+ /	**5.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3MS 3Suite A	EG020A3T	+	. /	**5.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071		*	**7.7**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**7.1**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
MatriDS7i4es (MS)							
Total Metals by ICP3MS 3Suite A	EG020A3T	+	. /	**5.0**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080		.	**7.1**	**5.0**	✓	ALS QCS3 requirement

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Brief Method Summaries

T1e analytical 7rocedures used by t1e Environmental Division 1ave been develo7ed from establis1ed internationally recognized 7rocedures suc1 as t1ose 7ublis1ed by t1e , S EPA, APHA, AS and NEPM6In 1ouse develo7ed 7rocedures are em7loyed in t1e absence of documented standards or by client request6T1e following re7ort 7rovides brief descri7tions of t1e analytical 7rocedures em7loyed for results re7orted in t1e Certificate of Analysis6Sources from w1ic1 ALS met1ods 1ave been develo7ed are 7rovided wit1in t1e Met1od Descri7tions6

Analytical Methods	Method	Matrix	Method Descriptions
Asbestos 3Count (Solid)	¸" 3SOL	SOIL	Asbestos Count on solid matrices using PLM conducted by Subcontracting Laboratory
7H (1:5)	EA002	SOIL	(APHA 21st ed6 4500H8) 7H is determined on soil sam7les after a 1:5 soil/water leac16T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 103)
Moisture Content	EA0553/*	SOIL	A gravimetric 7rocedure based on weig1t loss over a 12 1our drying 7eriod at 1033105 degrees C6 T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 102)
Total Metals by ICP3AES	EG005T	SOIL	(APHA 21st ed6 3120; , SEPA SE 846 36010) (ICPAES) Metals are determined following an a77ro7riate acid digestion of t1e soil6 T1e ICPAES tec1nique ionises sam7les in a 7lasma, emitting a c1aracteristic s7ectrum based on metals 7resent6 Intensities at selected wavelengt1s are com7ared against t1ose of matriDmatc1ed standards6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed6 3112 Hg 3B (Flow3njection (SnCl2)(Cold Va7our generation) AAS) FIM3AAS is an automated flameless atomic absor7tion tec1nique6Mercury in solids are determined following an a77ro7riate acid digestion6Ionic mercury is reduced online to atomic mercury va7our by SnCl2 w1ic1 is t1en 7urged into a 1eated quartz cell6 Quantification is by com7aring absorbance against a calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3)
TPH 3Semivolatile Fraction	EP071	SOIL	6 SEPA SE 846 38015A) Sam7le eDtracts are analysed by Ca7illary GC/FID and quantified against al4ane standards over t1e range C10 3C366T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 50667
TPH Volatiles/BTEX	EP080	SOIL	6 SEPA SE 846 38260B) EDtracts are analysed by Purge and Tra7, Ca7illary GC/MS6Quantification is by com7arison against an establis1ed 5 7oint calibration curve6T1is met1od is com7liant wit1 NEPM (1999) ¸' 1edule B(3) (Met1od 501)
7$	EA005	E ATER	APHA 21st ed64500 H8 B6 7H of water sam7les is determined by ISE eit1er manually or by automated 7H meter6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (A77) D62)
Total Metals by ICP3MS 3Suite A	EG020A3T	E ATER	(APHA 21st ed6 3125; , SEPA SE 846 36020, ALS QE °3EN/EG020): T1e ICPMS tec1nique utilizes a 1ig1ly efficient argon 7lasma to ionize selected elements6Ions are t1en 7assed into a 1ig1 vacuum mass ˙ 7ectrometer, w1ic1 se7arates t1e analytes based on t1eir distinct mass to c1arge ratios 7rior to t1eir measurement by a discrete dynode ion detector6
Total Mercury by FIMS	EG035T	E ATER	AS 3550, APHA 21st ed63112 Hg 3B (Flow3njection (SnCl2)(Cold Va7our generation) AAS) FIM3AAS is an automated flameless atomic absor7tion tec1nique6A bromate/bromide reagent is used to oDdise any organic mercury com7ounds in t1e unfiltered sam7le6 T1e ionic mercury is reduced online to atomic mercury va7our by SnCl2 w1ic1 is t1en 7urged into a 1eated quartz cell6 Quantification is by com7aring absorbance against a calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (A77) D62)
TPH 3Semivolatile Fraction	EP071	E ATER	, SEPA SE 846 38015A T1e sam7le eDtract is analysed by Ca7illary GC/FID and quantification is by com7arison against an establis1ed 5 7oint calibration curve of n3Al4ane standards6 T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (A77) D62)
TPH Volatiles/BTEX	EP080	E ATER	, SEPA SE 846 38260B E ater sam7les are directly 7urged 7rior to analysis by Ca7illary GC/MS and quantification is by com7arison against an establis1ed 5 7oint calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (A77) D62)

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Preparation Methods	Method	Matrix	Method Descriptions
1:5 solid / water leac1 for soluble analytes	EN34	SOIL	10 g of soil is miDed wit1 50 mL of distilled water and tumbled end over end for 1 1our6 E ater soluble salts are leac1ed from t1e soil by t1e continuous sus7ension6 Sam7les are settled and t1e water filtered off for analysis6
Hot Bloc4 Digest for metals in soils sediments and sludges	EN69	SOIL	, SEPA 2006 2 Mod6Hot Bloc4 Acid Digestion 160g of sam7le is 1eated wit1 Nitric and Hydroc1loric acids, t1en cooled6 PeroDide is added and sam7les 1eated and cooled again before being filtered and bul4ed to volume for analysis6 Digest is a77ro7riate for determination of selected metals in sludge, sediments, and soils6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 202)
Met1anolic EDraction of Soils for Purge and Tra7	(!# 1	SOIL	6 SEPA SE 846 35030A) 5g of solid is s1a4en wit1 surrogate and 10mL met1anol 7rior to analysis by Purge and Tra7 3 GC/MS6
Tumbler EDraction of Solids (O7tion B 3 Non3concentrating)	(!# 2″	SOIL	In31ouse, Mec1anical agitation (tumbler)610g of sam7le, Na2SO4 and surrogate are eDracted wit1 20mL 1:1 DCM/Acetone by end over end tumble6 T1e solvent is transferred directly to a GC vial for analysis6
Digestion for Total Recoverable Metals	EN25	E ATER	SEPA SE 4.1 33005 Met1od 3005 is a Nitric/Hydroc1loric acid digestion 7rocedure used to 7re7are surface and ground water sam7les for analysis by ICPAES or ICPMS6 T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (A77) D62)
Se7aratory Funnel EDraction of Liquids	(!# .	E ATER	, SEPA SE 846 33510B 500 mL to 1L of sam7le is transferred to a se7aratory funnel and serially eDracted t1ree times using 60mL DCM for eac1 eDract6 T1e resultant eDracts are combined, de1ydrated and concentrated for analysis6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (A77) D62)6 ALS default eDcludes sediment ; 1ic1 may be resident in t1e container6

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13-05-2009

Summary of Outliers

Outliers : Quality Control Samples

T1e following re7ort 1ig1lig1ts outliers flagged in t1e Quality Control (QC) Re7ort6 Surrogate recovery limits are static and based on , SEPA ¸ E 846 or ALS3 E l/EN/38 (in t1e absence of ˙7ecific , SEPA limits)6 T1is re7ort dis7lays QC Outliers (breac1es) only6

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**
- **For all matrices, no Laboratory Control outliers occur.**
- **For all matrices, no Matrix Spike outliers occur.**

Regular Sample Surrogates

- **For all regular sample matrices, no surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

T1is re7ort dis7lays Holding Time breac1es only6Only t1e res7ective E□traction / Pre7aration and/or Analysis com7onent is/are dis7layed6

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

T1e following re7ort 1ig1lig1ts breac1es in t1e Frequency of Quality Control Sam7les6

- **No Quality Control Sample Frequency Outliers exist.**

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SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **EB0907635**		
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	Page	: (of
Order number	: ----		
C-O-C number	: ----	Quote number	: ES2009SINKNI0322 (EN/003/09)
Site	: ----		
Sampler	: Ona Kanas	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 re>uirement

Dates

Date Samples Received	: (-=` ?-2009	Issue Date	: ('-=` ?-2009 13:23
Client Re>uested Due Date	: !,-=` ?-2009	Scheduled Reporting Date	: **25-MAY-2009**

Delivery Details

Mode of Delivery	: Client Drop off	Temperature	: 7.0,5.6 C - Ice present
No. of coolers/boxes	: 2 MEDIUM	No. of samples received	: '
Sercurity Seal	: Intact.	No. of samples analysed	: (3

General Comments

- This report contains the folloAing information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Re>uested Analysis
  - Re>uested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Asbestos analysis will be subcontraced to Queensland Laboratory.**
- Please direct any turn around / technical >ueries to the laboratory contact designated above.
- Please direct any >ueries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical Aork for this Aork order Aill be conducted at ALS Brisbane.
- Sample Disposal - A>ueous (14 days), Solid (90 days) from date of completion of Aork order.

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Sample Container(s)/Preservation Non-Compliances

˙ ll comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described beloA may be part of a laboratory process neccessary for the execution of client re>uested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
When date(s) and/or time(s) are shoAn bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information Aas not provided by client.

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis re>uested	SOIL - ASB-SOL (Subcontracted) Asbestos - Count (Solid)	SOIL - EA002 pH (1:5)	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-05 TPH/BTEX/8 Metals
EB0907635-003	(!-=˙ ?-2009 15:00	MW07 0.0-0.1			✓		✓
EB0907635-004	(-=˙ ?-2009 15:00	MW08 0.0-0.1		✓			
EB0907635-005	(-=˙ ?-2009 15:00	MW08_0.2-03				✓	
EB0907635-006	(-=˙ ?-2009 15:00	MW08_0.5-0.6	✓				
EB0907635-008	(-=˙ ?-2009 15:00	MW09_0.0-0.1				✓	
EB0907635-009	(-=˙ ?-2009 15:00	MW09_0.2-0.3	✓				
EB0907635-010	(-=˙ ?-2009 15:00	Dup 01				✓	
EB0907635-011	((-=˙ ?-2009 15:00	MW03_1.0-1.1	✓				
EB0907635-012	((-=˙ ?-2009 15:00	MW04_0.0-0.1		✓			
EB0907635-013	((-=˙ ?-2009 15:00	MW04_0.2-0.3			✓		✓
EB0907635-014	((-=˙ ?-2009 15:00	MW04_0.5-0.6	✓				
EB0907635-015	(!-=˙ ?-2009 15:00	MW05_0.0-0.1		✓			
EB0907635-016	(!-=˙ ?-2009 15:00	MW05_0.2-0.3			✓		✓
EB0907635-017	(!-=˙ ?-2009 15:00	MW05_0.5-0.6	✓				
EB0907635-018	(!-=˙ ?-2009 15:00	MW06_0.0-0.1		✓			
EB0907635-019	(!-=˙ ?-2009 15:00	MW06_0.2-0.3				✓	
EB0907635-020	(!-=˙ ?-2009 15:00	MW06_0.5-0.6	✓				
EB0907635-021	((-=˙ ?-2009 15:00	MW01_0-0.1	✓				
EB0907635-022	((-=˙ ?-2009 15:00	MW01_0.2-0.3				✓	
EB0907635-023	((-=˙ ?-2009 15:00	MW01_0.5-0.6	✓				
EB0907635-024	((-=˙ ?-2009 15:00	MW01_1.0-1.1	✓				
EB0907635-025	((-=˙ ?-2009 15:00	MW02_0.0-0.1	✓				
EB0907635-026	((-=˙ ?-2009 15:00	MW02_0.2-0.3			✓		✓
EB0907635-027	((-=˙ ?-2009 15:00	MW02_0.5-0.6		✓			
EB0907635-028	((-=˙ ?-2009 15:00	MW02_1.0-1.1	✓				
EB0907635-029	((-=˙ ?-2009 15:00	MW02_1.4-1.5	✓				
EB0907635-030	((-=˙ ?-2009 15:00	MW03_0-0.1	✓				
EB0907635-031	((-=˙ ?-2009 15:00	MW03_0.5-0.6	✓				
EB0907635-032	((-=˙ ?-2009 15:00	MW03_0.2-0.3	✓				
EB0907635-033	(!-=˙ ?-2009 15:00	MW07_0.2-0.3	✓				
EB0907635-034	((-=˙ ?-2009 15:00	MW05_1.0-1.1	✓				

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Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EA005: pH 0A	WATER - W-05T TPH/BTEX/8 Metals (Total)
EB0907635-001	((-=˙ ?-2009 15:00	RINSATE 1		✓
EB0907635-002	(!-=˙ ?-2009 15:00	RINSATE 2		✓
EB0907635-007	(-=˙ ?-2009 15:00	RINSATE 3	✓	✓

Requested Deliverables

MR JEREMY WICKS

- *AU Certificate of Analysis - NATA (COA)	Email	Aicks@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Aicks@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Aicks@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	Aicks@skm.com.au
- A4 - AU Tax Invoice (INV)	Email	Aicks@skm.com.au
- Default - Chain of Custody (COC)	Email	Aicks@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	Aicks@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	Aicks@skm.com.au
- EDI Format - XTab (XTAB)	Email	Aicks@skm.com.au
- Trigger - Subcontract Report (SUBCO)	Email	Aicks@skm.com.au

ONA KANAS

- *AU Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
- A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
- Default - Chain of Custody (COC)	Email	okanas@skm.com.au
- EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
- EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
- EDI Format - XTab (XTAB)	Email	okanas@skm.com.au
- Trigger - Subcontract Report (SUBCO)	Email	okanas@skm.com.au

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ABN: 83 117 421 324

1A/22 Ereton Dr, Arundel QLD 4214
Enquiries: 1300 138 366
Ph: (07) 5537 2536
Fax: (07) 5537 2535
admin@queenslandlab.com
www.queenslandlab.com

Job #: BSQ080884
ID Date: 18/05/09

Date Sampled: 11/13/05/09

Certificate of Analysis

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ALS BATCH #: EB0907635

SAMPLED BY: ALS Environmental

SAMPLE IDENTIFICATION: Five samples as submitted.

SCOPE: Microscope examination for the presence of asbestos.

INTRODUCTION: Five samples as submitted by ALS Environmental, were examined for the presence of asbestos.

METHODOLOGY: Samples are examined in accordance with the methodology outlined in the Australian Standards (AS 4964 – 2004) and In-House Method QLA003.

ALS No.	Sample Description	Weight / Dimensions (L/W/T)	Sample ID	Asbestos Detected (Y/N)	Fibre Type Detected
4	MW08-0.0-0.0.1 – Non homogenous soil sample	86.77g	884 – 01	N	No Asbestos Detected*
12	MW04-0.0-0.0.1 - Non homogenous soil sample	63.92g	884 – 2	N	No Asbestos Detected*
15	MW05-0.0-0.0.1 - Non homogenous soil sample	73.82g	884 – 3	N	No Asbestos Detected*
18	MW06-0.0-0.1 - Non homogenous soil sample	59.56g	884 – 4	N	No Asbestos Detected*
27	MW02-0.5-0.6 - Non homogenous soil sample	79.11g	884 – 5	N	No Asbestos Detected*

Table 1 - Results of sample examination using polarised light microscopy (PLM) including Dispersion Staining

*No Asbestos Detected at the Reporting Limit of 0.1g/kg.

49-Sch4 - Signature

NATA Approved Identifier
Michael Creighton

49-Sch4 - Signature

NATA Approved Signatory
Michael Creighton

SCOPE OF ACCREDITATION: Class 7.82.31: Qualitative identification of asbestos types in bulk samples by polarised light microscopy

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

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Work Order	: **EB0907913**	Page	1 of 21
Client	**SINCLAIR KNIGHT MERZ**	Laboratory	Environmental Division Brisbane
Contact	ONA KANAS	Contact	Tim Kilmister
Address	32 CORDELIA STREE SOUTH B"#˜ B¸˝ E QLD, AUSTRALIA 4101	Address	32 Shand Street Stafford QLD Australia 40+3
E-mail	okanas@skm.com.au	E-mail	Services.Brisbane@alsenviro.com
Telephone	,,,,	Telephone	+61-7,3243 7222
Facsimile	,,,,	Facsimile	+61-7,3243 7219
Pro:ect	&E09+37	QC Level	˝ EP; 1999 Schedule B(3) and ALS QCS3 re>uirement
Order number	,,,,		
C-O-C number	,,,,	Date Samples Received	19,; ¸?-2009
Sampler	O Kana & ; ; cLeod	Issue Date	27,; ¸?-2009
Site	Cronulla Park		
		No. of samples received	14
Quote number	E˝4003409	No. of samples analysed	14

This report supersedes any previous report<s= with this reference. Results apply to the sample<s= as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

NATA Accredited Laboratory 925

This document is issued in accordance with NATA accreditation re>uirements.

Accredited for compliance with #˜4#EC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Kim ; cCabe	Senior Inorganic Chemist	Inorganics
; atthew Goodwin	Senior Organic Chemist	Organics
Sarah Ashworth	Organic Chemist	Organics

13-05-2

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the U¨ EPA, APHA, AS and ¨EP; . In house developed procedures are employed in the absence of documented standards or by client re>uest.

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 insuffient 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 date<s=and/or time<s=are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0 00 the information was not provided by client.

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

- **PAH/Phenols: Sample MW04 shows poor 2-Fluorobiphenyl surrogate recovery due to suspected matrix interference. Insufficient sample for re-extraction and re-analysis.**
- **Pesticdes: Results for Monocrotophos should be scrutinised as QC data indicates abnormally low recovery.**
- **Pesticides/PCB: Insufficient sample for MW08 has been provided for standard analysis. Where applicable LOR values have been adjusted accordingly. It appears that sample container was not full upon receipt at ALS.**

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7((0,38-2	0/001	mg/L	; 0/001	; 0/001	<0/001	**0.003**	**0.003**
Cadmium	7((0,(3,9	0/0001	mg/L	; 0/0001	**0.0006**	<0/0001	<0/0001	<0/0001
Chromium	7((0,(7,3	0/001	mg/L	**0.010**	**0.009**	; 0/001	<0/001	**0.003**
Copper	7((0,+0,9	0/001	mg/L	**0.021**	**0.018**	; 0/001	<0/001	<0/001
Lead	7(39,92-1	0/001	mg/L	**0.026**	**0.032**	; 0/001	<0/001	<0/001
Nickel	7((0,02-0	0/001	mg/L	**0.032**	**0.100**	**0.004**	**0.013**	**0.013**
Zinc	7((0,22,2	0/00+	mg/L	**0.100**	**0.359**	**0.033**	; 0/00+	; 0/00+
EG035F: Dissolved Mercury by FIMS								
Mercury	7(39,97,2	0/0001	mg/L	; 0/0001	; 0/0001	<0/0001	<0/0001	<0/0001
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0/01	mg/L	**0.06**	**0.12**	**0.52**	**228**	**120**
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	,,,,	1	Jg/L	,,,,	,,,,	<1	<1	<1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319,9(,2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Hexachlorobenzene (HCB)	119,74-1	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
beta-BHC	319,9+,7	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
gamma-BHC	+9,89,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
delta-BHC	319,92,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Heptachlor	72,((, 9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Aldrin	309,00-2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Heptachlor epoxide	1024-57,3	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
trans-Chlordane	5103,74-2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
alpha-Endosulfan	9+9,98,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
cis-Chlordane	5103,71-9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Dieldrin	20,+7-1	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
4.4`-DDE	72-55-9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Endrin	72-20,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
beta-Endosulfan	33213,2+,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
4.4`-DDD	72-54-9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Endrin aldehyde	7421-93,(	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Endosulfan sulfate	1031-07,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
4.4`-DDT	+0-29,3	2	Jg/L	,,,,	,,,,	<2	<2	<2
Endrin ketone	+3(9(, 70,+	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Methoxychlor	72-43,+	2	Jg/L	,,,,	,,,,	<2	<2	<2
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73,7	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+

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Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
EP068B: Organophosphorus Pesticides (OP) - Continued								
Demeton-S-methyl	919,92,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Monocrotophos	2923-22-4	2	Jg/L	,,,,	,,,,	<2	<2	<2
Dimethoate	20-51-5	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Diazinon	333-41-5	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Chlorpyrifos-methyl	++98-13,0	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Parathion-methyl	298,00,0	2	Jg/L	,,,,	,,,,	<2	<2	<2
Malathion	121-7+,+	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Fenthion	++,38,9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Chlorpyrifos	2921-99-2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Parathion	+2,38-2	2	Jg/L	,,,,	,,,,	<2	<2	<2
Pirimphos-ethyl	23+05-41-1	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Chlorfenvinphos	(70,90,2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Bromophos-ethyl	(924-78,2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Fenamiphos	22224-92-6	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Prothiofos	3(2(3,(2,(	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Ethion	+23-12-2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Carbophenothion	786-19,2	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Azinphos Methyl	92,+0,0	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	+	Jg/L	,,,,	,,,,	;+	**5**	;+
Toluene	108,99,3	+	Jg/L	,,,,	,,,,	;+	;+	;+
Ethylbenzene	100-41-4	+	Jg/L	,,,,	,,,,	;+	;+	;+
meta- & para-Xylene	108,38,3 106-42-3	+	Jg/L	,,,,	,,,,	;+	;+	;+
Styrene	100-42-5	+	Jg/L	,,,,	,,,,	;+	;+	;+
ortho-Xylene	9+,(7,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
Isopropylbenzene	98,92-9	+	Jg/L	,,,,	,,,,	;+	;+	;+
n-Propylbenzene	103-65-1	+	Jg/L	,,,,	,,,,	;+	**6**	;+
1.3.5-Trimethylbenzene	108,27,9	+	Jg/L	,,,,	,,,,	;+	;+	;+
sec-Butylbenzene	13+,98,9	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2.4-Trimethylbenzene	9+,23,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
tert-Butylbenzene	98,02,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
p-Isopropyltoluene	99,87,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
n-Butylbenzene	104-51-9	+	Jg/L	,,,,	,,,,	;+	;+	;+
EP074B: Oxygenated Compounds								
Vinyl Acetate	108,0+,(	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
2-Butanone (MEK)	78,93,3	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
4-Methyl-2-pentanone (MIBK)	108-10-1	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
2-Hexanone (MBK)	+91-78,2	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0

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Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	+	Jg/L	,,,,	,,,,	;+	;+	;+
EP074D: Fumigants								
2.2-Dichloropropane	+94-20,7	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2-Dichloropropane	78,87,+	+	Jg/L	,,,,	,,,,	;+	;+	;+
cis-1.3-Dichloropropylene	10061-01-5	+	Jg/L	,,,,	,,,,	;+	;+	;+
trans-1.3-Dichloropropylene	10061-02-6	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2-Dibromoethane (EDB)	102,93,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	7+,71-9	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
Chloromethane	7(, 87,3	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
Vinyl chloride	7+,01-4	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
Bromomethane	7(, 83,9	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
Chloroethane	7+,00,3	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
Trichlorofluoromethane	7+,29,(	+0	Jg/L	,,,,	,,,,	;+ 0	;+ 0	;+ 0
1.1-Dichloroethene	7+,3+,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
Iodomethane	7(, 99,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
trans-1.2-Dichloroethene	156-60,+	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.1-Dichloroethane	7+,3(, 3	+	Jg/L	,,,,	,,,,	;+	;+	;+
cis-1.2-Dichloroethene	156-59-2	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.1.1-Trichloroethane	71-55-6	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.1-Dichloropropylene	+23,+9,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
Carbon Tetrachloride	56-23,+	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2-Dichloroethane	107,06-2	+	Jg/L	,,,,	,,,,	;+	;+	;+
Trichloroethene	79,01-6	+	Jg/L	,,,,	,,,,	;+	;+	;+
Dibromomethane	7(, 9+,3	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.1.2-Trichloroethane	79,00,+	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.3-Dichloropropane	142-29,9	+	Jg/L	,,,,	,,,,	;+	;+	;+
Tetrachloroethene	127-19,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.1.1.2-Tetrachloroethane	230-20,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
trans-1.4-Dichloro-2-butene	110,+7,2	+	Jg/L	,,,,	,,,,	;+	;+	;+
cis-1.4-Dichloro-2-butene	1476-11-5	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.1.2.2-Tetrachloroethane	79,3(,+	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2.3-Trichloropropane	96-19,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
Pentachloroethane	72,01-7	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2-Dibromo-3-chloropropane	96-12-9	+	Jg/L	,,,,	,,,,	;+	;+	;+
Hexachlorobutadiene	87,29,3	+	Jg/L	,,,,	,,,,	;+	;+	;+
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108,90,7	+	Jg/L	,,,,	,,,,	;+	8	26

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
EP074F: Halogenated Aromatic Compounds - Continued								
Bromobenzene	108,96-1	+	Jg/L	,,,,	,,,,	;+	;+	;+
2-Chlorotoluene	9+,(9,9	+	Jg/L	,,,,	,,,,	;+	;+	;+
4-Chlorotoluene	102,(3,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.3-Dichlorobenzene	541-73-1	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.4-Dichlorobenzene	102,(2, 7	+	Jg/L	,,,,	,,,,	;+	**6**	**28**
1.2-Dichlorobenzene	9+,+0-1	+	Jg/L	,,,,	,,,,	;+	;+	**5**
1.2.4-Trichlorobenzene	120,92-1	+	Jg/L	,,,,	,,,,	;+	;+	;+
1.2.3-Trichlorobenzene	87-61-6	+	Jg/L	,,,,	,,,,	;+	;+	;+
EP074G: Trihalomethanes								
Chloroform	27,22,3	+	Jg/L	,,,,	,,,,	;+	;+	;+
Bromodichloromethane	75-27,(	+	Jg/L	,,,,	,,,,	;+	;+	;+
Dibromochloromethane	124-49-1	+	Jg/L	,,,,	,,,,	;+	;+	;+
Bromoform	75-25-2	+	Jg/L	,,,,	,,,,	;+	;+	;+
EP074H: Naphthalene								
Naphthalene	91-20,3	7	Jg/L	,,,,	,,,,	; 7	**20**	**14**
EP075(SIM)A: Phenolic Compounds								
Phenol	108,95-2	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
2-Chlorophenol	9+,+7,9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
2-Methylphenol	9+,(9,7	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
3- & 4-Methylphenol	1319,77,3	2.0	Jg/L	,,,,	,,,,	<2.0	<2.0	<2.0
2-Nitrophenol	99,7+,+	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
2.4-Dimethylphenol	10+,27,9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
2.4-Dichlorophenol	120,83-2	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
2.6-Dichlorophenol	87,2+,0	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
4-Chloro-3-Methylphenol	+9,+0,7	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	**1.9**
2.4.6-Trichlorophenol	99,06-2	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
2.4.5-Trichlorophenol	9+,9+,(	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Pentachlorophenol	87,92,+	2.0	Jg/L	,,,,	,,,,	<2.0	<2.0	<2.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20,3	1.0	Jg/L	,,,,	,,,,	<1.0	**7.1**	**11.2**
Acenaphthylene	208,92,9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Acenaphthene	83,32-9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Fluorene	92,73,7	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Phenanthrene	9+,01-9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Fluoranthene	202,((, 0	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Pyrene	129,00,0	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Benz(a)anthracene	+2,++,3	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	219,01-9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	20+,99-2	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207,08,9	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Benzo(a)pyrene	+0,32-9	0/+	Jg/L	,,,,	,,,,	; 0/+	; 0/+	; 0/+
Indeno(1.2.3.cd)pyrene	193,39,+	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	+3,70,3	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	Jg/L	,,,,	,,,,	<1.0	<1.0	<1.0
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	,,,,	20	Jg/L	<20	<20	<20	**40**	**50**
C10 - C14 Fraction	,,,,	+0	Jg/L	;+ 0	;+ 0	;+ 0	**280**	**350**
C15 - C28 Fraction	,,,,	100	Jg/L	<100	<100	<100	**800**	**1200**
C29 - C36 Fraction	,,,,	+0	Jg/L	;+ 0	;+ 0	;+ 0	**370**	**380**
EP080: BTEX								
Benzene	71-43-2	1	Jg/L	<1	<1	<1	**6**	**3**
Toluene	108,99,3	2	Jg/L	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	Jg/L	<2	<2	<2	<2	<2
meta- & para-Xylene	108,38,3 106-42-3	2	Jg/L	<2	<2	<2	**3**	**2**
ortho-Xylene	9+,(7,2	2	Jg/L	<2	<2	<2	<2	<2
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	K	,,,,	,,,,	**83.4**	**35.6**	**77.2**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	K	,,,,	,,,,	**97.0**	**35.6**	**93.2**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78,(9,9	0.1	K	,,,,	,,,,	**88.4**	**32.3**	**83.3**
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17020,07,0	0.1	K	,,,,	,,,,	**102**	**105**	**103**
Toluene-D8	2037-26-5	0.1	K	,,,,	,,,,	**97.0**	**96.0**	**94.4**
4-Bromofluorobenzene	(2 0,00,(	0.1	K	,,,,	,,,,	**93.5**	**97.7**	**96.4**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127,99,3	0.1	K	,,,,	,,,,	**34.3**	**24.9**	**44.9**
2-Chlorophenol-D4	93951-73,2	0.1	K	,,,,	,,,,	**76.6**	**34.3**	**89.3**
2.4.6-Tribromophenol	119,79,2	0.1	K	,,,,	,,,,	**97.3**	**51.9**	**81.7**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60,9	0.1	K	,,,,	,,,,	**90.0**	**33.7**	**82.8**
Anthracene-d10	1719,02,9	0.1	K	,,,,	,,,,	**111**	**53.6**	**99.8**
4-Terphenyl-d14	1719-51-0	0.1	K	,,,,	,,,,	**100**	**51.7**	**89.9**
EP080S: TPH(V)/BTEX Surrogates								

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Analytical Results

Sub-; atrix: **WATER**

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				EB0907913-001	EB0907913-002	EB0907913-003	EB0907913-004	EB0907913-005
EP080S: TPH(V)/BTEX Surrogates - Continued								
1.2-Dichloroethane-D4	17020,07,0	0.1	K	**106**	**106**	**106**	**109**	**106**
Toluene-D8	2037-26-5	0.1	K	**104**	**106**	**106**	**105**	**103**
4-Bromofluorobenzene	(2 0,00,(	0.1	K	**103**	**107**	**103**	**108**	**106**

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	MWA (CR13)
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7((0,38-2	0/001	mg/L	**0.008**	**0.006**	; 0/001	<0/001	**0.019**
Cadmium	7((0,(3,9	0/0001	mg/L	; 0/0001	; 0/0001	<0/0001	<0/0001	<0/0001
Chromium	7((0,(7,3	0/001	mg/L	**0.001**	**0.006**	; 0/001	<0/001	<0/001
Copper	7((0,+0,9	0/001	mg/L	; 0/001	; 0/001	**0.003**	**0.001**	; 0/001
Lead	7(39,92-1	0/001	mg/L	; 0/001	; 0/001	<0/001	**0.001**	; 0/001
Nickel	7((0,02-0	0/001	mg/L	**0.016**	**0.039**	**0.003**	**0.003**	**0.001**
Zinc	7((0,22,2	0/00+	mg/L	**0.029**	; 0/00+	; 0/00+	**0.038**	**0.025**
EG035F: Dissolved Mercury by FIMS								
Mercury	7(39,97,2	0/0001	mg/L	; 0/0001	; 0/0001	<0/0001	<0/0001	<0/0001
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0/01	mg/L	**18.8**	**43.4**	**27.0**	**0.58**	,,,,
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	,,,,	1	Jg/L	<1	<1	;2	<1	,,,,
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319,9(,2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Hexachlorobenzene (HCB)	119,74-1	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
beta-BHC	319,9+,7	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
gamma-BHC	+9,89,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
delta-BHC	319,92,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Heptachlor	72,((, 9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Aldrin	309,00-2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Heptachlor epoxide	1024-57,3	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
trans-Chlordane	5103,74-2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
alpha-Endosulfan	9+9,98,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
cis-Chlordane	5103,71-9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Dieldrin	20,+7-1	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
4.4`-DDE	72-55-9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Endrin	72-20,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
beta-Endosulfan	33213,2+,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
4.4`-DDD	72-54-9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Endrin aldehyde	7421-93,(	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Endosulfan sulfate	1031-07,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
4.4`-DDT	+0-29,3	2	Jg/L	<2	<2	; 3	<2	,,,,
Endrin ketone	+3(9(, 70,+	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Methoxychlor	72-43,+	2	Jg/L	<2	<2	; 3	<2	,,,,
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73,7	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	MWA (CR13)
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010
EP068B: Organophosphorus Pesticides (OP) - Continued								
Demeton-S-methyl	919,92,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Monocrotophos	2923-22-4	2	Jg/L	<2	<2	; 3	<2	,,,,
Dimethoate	20-51-5	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Diazinon	333-41-5	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Chlorpyrifos-methyl	++98-13,0	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Parathion-methyl	298,00,0	2	Jg/L	<2	<2	; 3	<2	,,,,
Malathion	121-7+,+	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Fenthion	++,38,9	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Chlorpyrifos	2921-99-2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Parathion	+2,38-2	2	Jg/L	<2	<2	; 3	<2	,,,,
Pirimphos-ethyl	23+05-41-1	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Chlorfenvinphos	(70,90,2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Bromophos-ethyl	(924-78,2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Fenamiphos	22224-92-6	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Prothiofos	3(2(3,(2,(	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Ethion	+23-12-2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Carbophenothion	786-19,2	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
Azinphos Methyl	92,+0,0	0/+	Jg/L	; 0/+	; 0/+	<2.9	; 0/+	,,,,
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	+	Jg/L	;+	;+	;+	;+	,,,,
Toluene	108,99,3	+	Jg/L	**9**	;+	;+	;+	,,,,
Ethylbenzene	100-41-4	+	Jg/L	;+	;+	**10**	;+	,,,,
meta- & para-Xylene	108,38,3 106-42-3	+	Jg/L	;+	;+	**9**	;+	,,,,
Styrene	100-42-5	+	Jg/L	;+	;+	;+	;+	,,,,
ortho-Xylene	9+,(7,2	+	Jg/L	;+	;+	;+	;+	,,,,
Isopropylbenzene	98,92-9	+	Jg/L	;+	;+	;+	;+	,,,,
n-Propylbenzene	103-65-1	+	Jg/L	;+	;+	;+	;+	,,,,
1.3.5-Trimethylbenzene	108,27,9	+	Jg/L	;+	;+	;+	;+	,,,,
sec-Butylbenzene	13+,98,9	+	Jg/L	;+	;+	;+	;+	,,,,
1.2.4-Trimethylbenzene	9+,23,2	+	Jg/L	;+	;+	**24**	;+	,,,,
tert-Butylbenzene	98,02,2	+	Jg/L	;+	;+	;+	;+	,,,,
p-Isopropyltoluene	99,87,2	+	Jg/L	;+	;+	**19**	;+	,,,,
n-Butylbenzene	104-51-9	+	Jg/L	;+	;+	;+	;+	,,,,
EP074B: Oxygenated Compounds								
Vinyl Acetate	108,0+,(	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
2-Butanone (MEK)	78,93,3	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
4-Methyl-2-pentanone (MIBK)	108-10-1	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
2-Hexanone (MBK)	+91-78,2	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	MWA (CR13)
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	+	Jg/L	;+	;+	;+	;+	,,,,
EP074D: Fumigants								
2.2-Dichloropropane	+94-20,7	+	Jg/L	;+	;+	;+	;+	,,,,
1.2-Dichloropropane	78,87,+	+	Jg/L	;+	;+	;+	;+	,,,,
cis-1.3-Dichloropropylene	10061-01-5	+	Jg/L	;+	;+	;+	;+	,,,,
trans-1.3-Dichloropropylene	10061-02-6	+	Jg/L	;+	;+	;+	;+	,,,,
1.2-Dibromoethane (EDB)	102,93,(	+	Jg/L	;+	;+	;+	;+	,,,,
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	7+,71-9	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
Chloromethane	7(, 87,3	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
Vinyl chloride	7+,01-4	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
Bromomethane	7(, 83,9	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
Chloroethane	7+,00,3	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
Trichlorofluoromethane	7+,29,(	+0	Jg/L	;+ 0	;+ 0	;+ 0	;+ 0	,,,,
1.1-Dichloroethene	7+,3+,(	+	Jg/L	;+	;+	;+	;+	,,,,
Iodomethane	7(, 99,(	+	Jg/L	;+	;+	;+	;+	,,,,
trans-1.2-Dichloroethene	156-60,+	+	Jg/L	;+	;+	;+	;+	,,,,
1.1-Dichloroethane	7+,3(, 3	+	Jg/L	;+	;+	;+	;+	,,,,
cis-1.2-Dichloroethene	156-59-2	+	Jg/L	;+	;+	;+	;+	,,,,
1.1.1-Trichloroethane	71-55-6	+	Jg/L	;+	;+	;+	;+	,,,,
1.1-Dichloropropylene	+23,+9,2	+	Jg/L	;+	;+	;+	;+	,,,,
Carbon Tetrachloride	56-23,+	+	Jg/L	;+	;+	;+	;+	,,,,
1.2-Dichloroethane	107,06-2	+	Jg/L	;+	;+	;+	;+	,,,,
Trichloroethene	79,01-6	+	Jg/L	;+	;+	;+	;+	,,,,
Dibromomethane	7(, 9+,3	+	Jg/L	;+	;+	;+	;+	,,,,
1.1.2-Trichloroethane	79,00,+	+	Jg/L	;+	;+	;+	;+	,,,,
1.3-Dichloropropane	142-29,9	+	Jg/L	;+	;+	;+	;+	,,,,
Tetrachloroethene	127-19,(	+	Jg/L	;+	;+	;+	;+	,,,,
1.1.1.2-Tetrachloroethane	230-20,2	+	Jg/L	;+	;+	;+	;+	,,,,
trans-1.4-Dichloro-2-butene	110,+7,2	+	Jg/L	;+	;+	;+	;+	,,,,
cis-1.4-Dichloro-2-butene	1476-11-5	+	Jg/L	;+	;+	;+	;+	,,,,
1.1.2.2-Tetrachloroethane	79,3(,+	+	Jg/L	;+	;+	;+	;+	,,,,
1.2.3-Trichloropropane	96-19,(	+	Jg/L	;+	;+	;+	;+	,,,,
Pentachloroethane	72,01-7	+	Jg/L	;+	;+	;+	;+	,,,,
1.2-Dibromo-3-chloropropane	96-12-9	+	Jg/L	;+	;+	;+	;+	,,,,
Hexachlorobutadiene	87,29,3	+	Jg/L	;+	;+	;+	;+	,,,,
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108,90,7	+	Jg/L	7	13	;+	;+	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	MWA (CR13)
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010
EP074F: Halogenated Aromatic Compounds - Continued								
Bromobenzene	108,96-1	+	Jg/L	;+	;+	;+	;+	,,,,
2-Chlorotoluene	9+,(9,9	+	Jg/L	;+	;+	;+	;+	,,,,
4-Chlorotoluene	102,(3,(	+	Jg/L	;+	;+	;+	;+	,,,,
1.3-Dichlorobenzene	541-73-1	+	Jg/L	;+	;+	;+	;+	,,,,
1.4-Dichlorobenzene	102,(2, 7	+	Jg/L	**11**	**26**	;+	;+	,,,,
1.2-Dichlorobenzene	9+,+0-1	+	Jg/L	;+	;+	;+	;+	,,,,
1.2.4-Trichlorobenzene	120,92-1	+	Jg/L	;+	;+	;+	;+	,,,,
1.2.3-Trichlorobenzene	87-61-6	+	Jg/L	;+	;+	;+	;+	,,,,
EP074G: Trihalomethanes								
Chloroform	27,22,3	+	Jg/L	;+	;+	;+	;+	,,,,
Bromodichloromethane	75-27,(	+	Jg/L	;+	;+	;+	;+	,,,,
Dibromochloromethane	124-49-1	+	Jg/L	;+	;+	;+	;+	,,,,
Bromoform	75-25-2	+	Jg/L	;+	;+	;+	;+	,,,,
EP074H: Naphthalene								
Naphthalene	91-20,3	7	Jg/L	**12**	**10**	; 7	; 7	,,,,
EP075(SIM)A: Phenolic Compounds								
Phenol	108,95-2	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2-Chlorophenol	9+,+7,9	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2-Methylphenol	9+,(9,7	1.0	Jg/L	**1.8**	<1.0	<1.0	<1.0	,,,,
3- & 4-Methylphenol	1319,77,3	2.0	Jg/L	<2.0	<2.0	<2.0	<2.0	,,,,
2-Nitrophenol	99,7+,+	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2.4-Dimethylphenol	10+,27,9	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2.4-Dichlorophenol	120,83-2	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2.6-Dichlorophenol	87,2+,0	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
4-Chloro-3-Methylphenol	+9,+0,7	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2.4.6-Trichlorophenol	99,06-2	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
2.4.5-Trichlorophenol	9+,9+,(	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Pentachlorophenol	87,92,+	2.0	Jg/L	<2.0	<2.0	<2.0	<2.0	,,,,
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20,3	1.0	Jg/L	**7.5**	**3.4**	**2.4**	<1.0	,,,,
Acenaphthylene	208,92,9	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Acenaphthene	83,32-9	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Fluorene	92,73,7	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Phenanthrene	9+,01-9	1.0	Jg/L	**1.8**	<1.0	**1.1**	<1.0	,,,,
Anthracene	120-12-7	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Fluoranthene	202,((, 0	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Pyrene	129,00,0	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Benz(a)anthracene	+2,++,3	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	MWA (CR13)
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	219,01-9	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Benzo(b)fluoranthene	20+,99-2	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Benzo(k)fluoranthene	207,08,9	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Benzo(a)pyrene	+0,32-9	0/+	Jg/L	; 0/+	; 0/+	; 0/2	; 0/+	,,,,
Indeno(1.2.3.cd)pyrene	193,39,+	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Dibenz(a.h)anthracene	+3,70,3	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
Benzo(g.h.i)perylene	191-24-2	1.0	Jg/L	<1.0	<1.0	<1.0	<1.0	,,,,
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	,,,,	20	Jg/L	**50**	**50**	**50**	<20	<20
C10 - C14 Fraction	,,,,	+0	Jg/L	**840**	**590**	**230**	;+ 0	;+ 0
C15 - C28 Fraction	,,,,	100	Jg/L	**2500**	**1900**	**700**	**100**	**200**
C29 - C36 Fraction	,,,,	+0	Jg/L	**710**	**680**	**280**	;+ 0	;+ 0
EP080: BTEX								
Benzene	71-43-2	1	Jg/L	**2**	**5**	**2**	<1	<1
Toluene	108,99,3	2	Jg/L	**10**	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	Jg/L	<2	**4**	**11**	<2	<2
meta- & para-Xylene	108,38,3 106-42-3	2	Jg/L	**2**	**4**	**10**	<2	<2
ortho-Xylene	9+,(7,2	2	Jg/L	<2	<2	**4**	<2	<2
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	K	**82.4**	**69.2**	**67.6**	**64.2**	,,,,
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	K	**91.8**	**79.1**	**78.6**	**71.2**	,,,,
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78,(9,9	0.1	K	**87.2**	**69.3**	**76.3**	**72.8**	,,,,
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17020,07,0	0.1	K	**98.8**	**97.9**	**92.6**	**104**	,,,,
Toluene-D8	2037-26-5	0.1	K	**91.7**	**93.9**	**88.6**	**99.8**	,,,,
4-Bromofluorobenzene	(2 0,00,(	0.1	K	**94.0**	**91.7**	**88.7**	**97.3**	,,,,
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127,99,3	0.1	K	**48.9**	**38.3**	**28.2**	**21.7**	,,,,
2-Chlorophenol-D4	93951-73,2	0.1	K	**90.9**	**74.4**	**61.8**	**41.8**	,,,,
2.4.6-Tribromophenol	119,79,2	0.1	K	**85.9**	**72.1**	**66.2**	**64.6**	,,,,
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60,9	0.1	K	**66.3**	**53.2**	**62.6**	**51.6**	,,,,
Anthracene-d10	1719,02,9	0.1	K	**106**	**90.5**	**79.1**	**78.7**	,,,,
4-Terphenyl-d14	1719-51-0	0.1	K	**96.3**	**80.3**	**75.0**	**76.7**	,,,,
EP080S: TPH(V)/BTEX Surrogates								

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	MWA (CR13)
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00
				EB0907913-006	EB0907913-007	EB0907913-008	EB0907913-009	EB0907913-010
EP080S: TPH(V)/BTEX Surrogates - Continued								
1.2-Dichloroethane-D4	17020,07,0	0.1	K	**102**	**101**	**95.0**	**108**	**106**
Toluene-D8	2037-26-5	0.1	K	**100**	**102**	**96.4**	**109**	**106**
4-Bromofluorobenzene	(2 0,00,(	0.1	K	**104**	**101**	**98.0**	**107**	**105**

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	,,,,
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	,,,,
				EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7((0,38-2	0/001	mg/L	; 0/001	; 0/001	**0.009**	,,,,	,,,,
Cadmium	7((0,(3,9	0/0001	mg/L	**0.0003**	; 0/0001	; 0/0001	,,,,	,,,,
Chromium	7((0,(7,3	0/001	mg/L	**0.001**	; 0/001	; 0/001	,,,,	,,,,
Copper	7((0,+0,9	0/001	mg/L	**0.006**	**0.002**	; 0/001	,,,,	,,,,
Lead	7(39,92-1	0/001	mg/L	**0.006**	; 0/001	; 0/001	,,,,	,,,,
Nickel	7((0,02-0	0/001	mg/L	**0.006**	**0.002**	**0.019**	,,,,	,,,,
Zinc	7((0,22,2	0/00+	mg/L	**0.079**	**0.014**	**0.028**	,,,,	,,,,
EG020T: Total Metals by ICP-MS								
Arsenic	7((0,38-2	0/001	mg/L	,,,,	,,,,	,,,,	; 0/001	,,,,
Cadmium	7((0,(3,9	0/0001	mg/L	,,,,	,,,,	,,,,	; 0/0001	,,,,
Chromium	7((0,(7,3	0/001	mg/L	,,,,	,,,,	,,,,	; 0/001	,,,,
Copper	7((0,+0,9	0/001	mg/L	,,,,	,,,,	,,,,	; 0/001	,,,,
Lead	7(39,92-1	0/001	mg/L	,,,,	,,,,	,,,,	; 0/001	,,,,
Nickel	7((0,02-0	0/001	mg/L	,,,,	,,,,	,,,,	; 0/001	,,,,
Zinc	7((0,22,2	0/00+	mg/L	,,,,	,,,,	,,,,	**0.005**	,,,,
EG035F: Dissolved Mercury by FIMS								
Mercury	7(39,97,2	0/0001	mg/L	; 0/0001	; 0/0001	<0/0001	,,,,	,,,,
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7(39,97,2	0/0001	mg/L	,,,,	,,,,	,,,,	; 0/0001	,,,,
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0/01	mg/L	**0.14**	,,,,	,,,,	,,,,	,,,,
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	,,,,	1	Jg/L	<1	,,,,	,,,,	,,,,	,,,,
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319,9(,2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Hexachlorobenzene (HCB)	119,74-1	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
beta-BHC	319,9+,7	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
gamma-BHC	+9,89,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
delta-BHC	319,92,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Heptachlor	72,((, 9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Aldrin	309,00-2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Heptachlor epoxide	1024-57,3	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
trans-Chlordane	5103,74-2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
alpha-Endosulfan	9+9,98,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
cis-Chlordane	5103,71-9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Dieldrin	20,+7-1	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
4.4`-DDE	72-55-9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,

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Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	,,,,
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	,,,,
				EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	----
EP068A: Organochlorine Pesticides (OC) - Continued								
Endrin	72-20,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
beta-Endosulfan	33213,2+,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
4.4`-DDD	72-54-9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Endrin aldehyde	7421-93,(	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Endosulfan sulfate	1031-07,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
4.4`-DDT	+0-29,3	2	Jg/L	<2	,,,,	,,,,	,,,,	,,,,
Endrin ketone	+3(9(, 70,+	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Methoxychlor	72-43,+	2	Jg/L	<2	,,,,	,,,,	,,,,	,,,,
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73,7	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Demeton-S-methyl	919,92,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Monocrotophos	2923-22-4	2	Jg/L	<2	,,,,	,,,,	,,,,	,,,,
Dimethoate	20-51-5	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Diazinon	333-41-5	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Chlorpyrifos-methyl	++98-13,0	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Parathion-methyl	298,00,0	2	Jg/L	<2	,,,,	,,,,	,,,,	,,,,
Malathion	121-7+,+	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Fenthion	++,38,9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Chlorpyrifos	2921-99-2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Parathion	+2,38-2	2	Jg/L	<2	,,,,	,,,,	,,,,	,,,,
Pirimphos-ethyl	23+05-41-1	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Chlorfenvinphos	(70,90,2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Bromophos-ethyl	(924-78,2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Fenamiphos	22224-92-6	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Prothiofos	3(2(3,(2,(	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Ethion	+23-12-2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Carbophenothion	786-19,2	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Azinphos Methyl	92,+0,0	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Toluene	108,99,3	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Ethylbenzene	100-41-4	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
meta- & para-Xylene	108,38,3 106-42-3	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Styrene	100-42-5	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
ortho-Xylene	9+,(7,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Isopropylbenzene	98,92-9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
n-Propylbenzene	103-65-1	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.3.5-Trimethylbenzene	108,27,9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	,,,,
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	,,,,
				EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	----
EP074A: Monocyclic Aromatic Hydrocarbons - Continued								
sec-Butylbenzene	13+,98,9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2.4-Trimethylbenzene	9+,23,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
tert-Butylbenzene	98,02,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
p-Isopropyltoluene	99,87,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
n-Butylbenzene	104-51-9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
EP074B: Oxygenated Compounds								
Vinyl Acetate	108,0+,(	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
2-Butanone (MEK)	78,93,3	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
4-Methyl-2-pentanone (MIBK)	108-10-1	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
2-Hexanone (MBK)	+91-78,2	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
EP074D: Fumigants								
2.2-Dichloropropane	+94-20,7	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2-Dichloropropane	78,87,+	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
cis-1.3-Dichloropropylene	10061-01-5	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
trans-1.3-Dichloropropylene	10061-02-6	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2-Dibromoethane (EDB)	102,93,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	7+,71-9	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
Chloromethane	7(, 87,3	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
Vinyl chloride	7+,01-4	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
Bromomethane	7(, 83,9	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
Chloroethane	7+,00,3	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
Trichlorofluoromethane	7+,29,(	+0	Jg/L	;+ 0	,,,,	,,,,	,,,,	,,,,
1.1-Dichloroethene	7+,3+,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Iodomethane	7(, 99,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
trans-1.2-Dichloroethene	156-60,+	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.1-Dichloroethane	7+,3(, 3	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
cis-1.2-Dichloroethene	156-59-2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.1.1-Trichloroethane	71-55-6	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.1-Dichloropropylene	+23,+9,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Carbon Tetrachloride	56-23,+	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2-Dichloroethane	107,06-2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Trichloroethene	79,01-6	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Dibromomethane	7(, 9+,3	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.1.2-Trichloroethane	79,00,+	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.3-Dichloropropane	142-29,9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,

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Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	,,,,
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	,,,,
				EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	----
EP074E: Halogenated Aliphatic Compounds - Continued								
Tetrachloroethene	127-19,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.1.1.2-Tetrachloroethane	230-20,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
trans-1.4-Dichloro-2-butene	110,+7,2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
cis-1.4-Dichloro-2-butene	1476-11-5	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.1.2.2-Tetrachloroethane	79,3(,+	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2.3-Trichloropropane	96-19,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Pentachloroethane	72,01-7	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2-Dibromo-3-chloropropane	96-12-9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Hexachlorobutadiene	87,29,3	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108,90,7	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Bromobenzene	108,96-1	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
2-Chlorotoluene	9+,(9,9	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
4-Chlorotoluene	102,(3,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.3-Dichlorobenzene	541-73-1	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.4-Dichlorobenzene	102,(2, 7	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2-Dichlorobenzene	9+,+0-1	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2.4-Trichlorobenzene	120,92-1	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
1.2.3-Trichlorobenzene	87-61-6	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
EP074G: Trihalomethanes								
Chloroform	27,22,3	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Bromodichloromethane	75-27,(	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Dibromochloromethane	124-49-1	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
Bromoform	75-25-2	+	Jg/L	;+	,,,,	,,,,	,,,,	,,,,
EP074H: Naphthalene								
Naphthalene	91-20,3	7	Jg/L	; 7	,,,,	,,,,	,,,,	,,,,
EP075(SIM)A: Phenolic Compounds								
Phenol	108,95-2	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2-Chlorophenol	9+,+7,9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2-Methylphenol	9+,(9,7	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
3- & 4-Methylphenol	1319,77,3	2.0	Jg/L	<2.0	,,,,	,,,,	,,,,	,,,,
2-Nitrophenol	99,7+,+	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2.4-Dimethylphenol	10+,27,9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2.4-Dichlorophenol	120,83-2	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2.6-Dichlorophenol	87,2+,0	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
4-Chloro-3-Methylphenol	+9,+0,7	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2.4.6-Trichlorophenol	99,06-2	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
2.4.5-Trichlorophenol	9+,9+,(	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	,,,,
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	,,,,
				EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	----
EP075(SIM)A: Phenolic Compounds - Continued								
Pentachlorophenol	87,92,+	2.0	Jg/L	<2.0	,,,,	,,,,	,,,,	,,,,
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20,3	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Acenaphthylene	208,92,9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Acenaphthene	83,32-9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Fluorene	92,73,7	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Phenanthrene	9+,01-9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Anthracene	120-12-7	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Fluoranthene	202,((, 0	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Pyrene	129,00,0	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Benz(a)anthracene	+2,++,3	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Chrysene	219,01-9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Benzo(b)fluoranthene	20+,99-2	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Benzo(k)fluoranthene	207,08,9	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Benzo(a)pyrene	+0,32-9	0/+	Jg/L	; 0/+	,,,,	,,,,	,,,,	,,,,
Indeno(1.2.3.cd)pyrene	193,39,+	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Dibenz(a.h)anthracene	+3,70,3	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
Benzo(g.h.i)perylene	191-24-2	1.0	Jg/L	<1.0	,,,,	,,,,	,,,,	,,,,
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	,,,,	20	Jg/L	<20	<20	**40**	<20	,,,,
C10 - C14 Fraction	,,,,	+0	Jg/L	;+ 0	;+ 0	**500**	;+ 0	,,,,
C15 - C28 Fraction	,,,,	100	Jg/L	**200**	<100	**1200**	<100	,,,,
C29 - C36 Fraction	,,,,	+0	Jg/L	**120**	;+ 0	**210**	;+ 0	,,,,
EP080: BTEX								
Benzene	71-43-2	1	Jg/L	<1	<1	**2**	<1	,,,,
Toluene	108,99,3	2	Jg/L	<2	<2	**8**	<2	,,,,
Ethylbenzene	100-41-4	2	Jg/L	<2	<2	<2	<2	,,,,
meta- & para-Xylene	108,38,3 106-42-3	2	Jg/L	<2	<2	**2**	<2	,,,,
ortho-Xylene	9+,(7,2	2	Jg/L	<2	<2	<2	<2	,,,,
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	K	**87.8**	,,,,	,,,,	,,,,	,,,,
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	K	**109**	,,,,	,,,,	,,,,	,,,,
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78,(9,9	0.1	K	**107**	,,,,	,,,,	,,,,	,,,,
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17020,07,0	0.1	K	**104**	,,,,	,,,,	,,,,	,,,,

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Analytical Results

Sub-; atrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWB (CR14)	MWC (CR15)	DUP04	Rinsate/ Rinsate 4	,,,,
				Client sampling date / time: 19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	19,; ¸ ?-2009 11:00	,,,,
				EB0907913-011	EB0907913-012	EB0907913-013	EB0907913-014	----
EP074S: VOC Surrogates - Continued								
Toluene-D8	2037-26-5	0.1	K	**99.0**	,,,,	,,,,	,,,,	,,,,
4-Bromofluorobenzene	(2 0,00,(	0.1	K	**96.2**	,,,,	,,,,	,,,,	,,,,
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127,99,3	0.1	K	**39.6**	,,,,	,,,,	,,,,	,,,,
2-Chlorophenol-D4	93951-73,2	0.1	K	**81.6**	,,,,	,,,,	,,,,	,,,,
2.4.6-Tribromophenol	119,79,2	0.1	K	**89.1**	,,,,	,,,,	,,,,	,,,,
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60,9	0.1	K	**86.0**	,,,,	,,,,	,,,,	,,,,
Anthracene-d10	1719,02,9	0.1	K	**108**	,,,,	,,,,	,,,,	,,,,
4-Terphenyl-d14	1719-51-0	0.1	K	**105**	,,,,	,,,,	,,,,	,,,,
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17020,07,0	0.1	K	**108**	**105**	**106**	**107**	,,,,
Toluene-D8	2037-26-5	0.1	K	**108**	**104**	**106**	**104**	,,,,
4-Bromofluorobenzene	(2 0,00,(	0.1	K	**106**	**105**	**107**	**102**	,,,,

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Surrogate Control Limits

Sub-; atrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	10	164
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	10	132
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78,(9,9	10	110
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17020,07,0	80	120
Toluene-D8	2037-26-5	99	110
4-Bromofluorobenzene	(2 0,00,(	92	115
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127,99,3	10	9(
2-Chlorophenol-D4	93951-73,2	23	13(
2.4.6-Tribromophenol	119,79,2	10	123
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60,9	(3	116
Anthracene-d10	1719,02,9	27	133
4-Terphenyl-d14	1719-51-0	33	141
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17020,07,0	80	120
Toluene-D8	2037-26-5	99	110
4-Bromofluorobenzene	(2 0,00,(	92	115

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0907913**	P>BA	: of 5
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ----	Telephone	: +61-7-3243 7222
Facsimile	: ----	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEP; 1999 Schedule B< =and ALS QCS3 re>uirement
Site	: Cronulla Park		
C-O-C number	: ----	Date Samples Received	: (9- ; ^ ?-))9
Sampler	: O Kana & ; ; cLeod	Issue Date	: 4- ; ^ ?-))9
Order number	: ----		
		No. of samples received	: ('
Quote number	: EN/003/09	No. of samples analysed	: ('

This report supersedes any previous report<s= with this reference. Results apply to the sample<s= as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate <DUP=Report; Relative Percentage Difference <RPD=and Acceptance Limits
- ; ethod Blank <; B=and Laboratory Control Spike <LCS=Report; Recovery and Acceptance Limits
- ; atriDSpike <; ″ =Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation re>uirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Kim ; cCabe	Senior Inorganic Chemist	Inorganics
; atthew Goodwin	Senior Organic Chemist	Organics
Sarah Ashworth	Organic Chemist	Organics

13-05-2

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, ˆ7$ˆ , AS and NEP; . In house developed procedures are employed in the absence of documented standards or by client re>uest.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than <C=result is higher than the LOR, this may be due to primary sample eDtract/digestate dilution and/or insuffient 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 matriDinterference.

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

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Laboratory Duplicate (DUP) Report

The >uality 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 ; ethod %A"-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-; atriD: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 984592)									
EB0907768-001	Anonymous	EG020A-F: Cadmium	4")-˜˜-9	)0)))(	mg/L	)0)))˜	)0)))(	6)0(	No Limit
		EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	4.15	'0)	(0	0% - 20%
		EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Copper	7440-50-8	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Lead	4˜˜9-9 -(	)0))(	mg/L	)0))	)0))	)0)	No Limit
		EG020A-F: Nickel	4")-) -)	)0))(	mg/L	)0)'9	0.051	5.0	0% - 20%
		EG020A-F: Zinc	4")-33-3	0.005	mg/L	)0)'3	)0)'4	˜04	No Limit
EB0907768-011	Anonymous	EG020A-F: Cadmium	4")-˜˜-9	)0))))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
		EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	)096)	0.954	04	0% - 20%
		EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Copper	7440-50-8	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Lead	4˜˜9-9 -(	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Nickel	4")-) -)	)0))(	mg/L	)0))	)0))	)0)	No Limit
		EG020A-F: Zinc	4")-33-3	0.005	mg/L	)0))9	)0))6	)0)	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 984594)									
EB0907913-003	; A)˜	EG020A-F: Cadmium	4")-˜˜-9	)0))))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
		EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Copper	7440-50-8	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Lead	4˜˜9-9 -(	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Nickel	4")-) -)	)0))(	mg/L	)0))'	0.005	)0)	No Limit
		EG020A-F: Zinc	4")-33-3	0.005	mg/L	)0)˜˜	)0)˜˜	)0)	No Limit
EB0907913-012	; WC <CR15=	EG020A-F: Cadmium	4")-˜˜-9	)0))))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
		EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Copper	7440-50-8	)0))(	mg/L	)0))	)0))	)0)	No Limit
		EG020A-F: Lead	4˜˜9-9 -(	)0))(	mg/L	C)0))(	C)0))(	)0)	No Limit
		EG020A-F: Nickel	4")-) -)	)0))(	mg/L	)0))	)0))	)0)	No Limit
		EG020A-F: Zinc	4")-33-3	0.005	mg/L	)0)('	)0)(	)0)	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 985487)									
EB0907252-001	Anonymous	EG020A-T: Cadmium	4")-˜˜-9	)0))))(	mg/L	)0))'(	)0))'˜	4.5	0% - 20%
		EG020A-T: Arsenic	4")-˜6-	)0))(	mg/L	)0)3˜	0.058	60˜	0% - 2)F
		EG020A-T: Chromium	4")-'4-˜	)0))(	mg/L	3(04	3(09	)0	0% - 2)F
		EG020A-T: Copper	7440-50-8	)0))(	mg/L	)0 3	0.254	˜0˜	0% - 20%
		EG020A-T: Lead	4˜˜9-9 -(	)0))(	mg/L	)0˜˜6	)0˜˜6	06	0% - 20%

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Sub-; atriD: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020T: Total Metals by ICP-MS (QC Lot: 985487) - continued									
EB0907252-001	Anonymous	EG020A-T: Nickel	4")-) -)	)0))(	mg/L	)0)93	)0)9	'04	0% - 20%
		EG020A-T: Zinc	4")-33-3	0.005	mg/L	(066	(06)	'03	0% - 20%
EB0907936-003	Anonymous	EG020A-T: Cadmium	4")-˜-9	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
		EG020A-T: Arsenic	4")-˜6-	)0))(	mg/L	)0))	)0))	)0)	No Limit
		EG020A-T: Chromium	4")-'4-˜	)0))(	mg/L	)0))'	)0))'	)0)	No Limit
		EG020A-T: Copper	7440-50-8	)0))(	mg/L	)0))4	)0))6	)0)	No Limit
		EG020A-T: Lead	4˜9-9 -(	)0))(	mg/L	)0))6	)0))6	)0)	No Limit
		EG020A-T: Nickel	4")-) -)	)0))(	mg/L	)0))˜	)0))˜	)0)	No Limit
		EG020A-T: Zinc	4")-33-3	0.005	mg/L	)0)'	)0)'3	304	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 984591)									
EB0907768-001	Anonymous	EG035F: ; ercury	4˜9-94-3	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
EB0907768-012	Anonymous	EG035F: ; ercury	4˜9-94-3	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 984593)									
EB0907913-003	; A)˜	EG035F: ; ercury	4˜9-94-3	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
EB0907913-013	DUP04	EG035F: ; ercury	4˜9-94-3	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984931)									
EB0907913-014	Rinsate/ Rinsate 4	EG035T: ; ercury	4˜9-94-3	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
EB0907936-009	Anonymous	EG035T: ; ercury	4˜9-94-3	)0)))(	mg/L	C)0))))(	C)0))))(	)0)	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 989022)									
EB0907698-008	Anonymous	EK055G: Ammonia as N	433'-'(-4	)0)(	mg/L	)04˜	)04'	)0)	0% - 20%
EB0907913-009	; A)9	EK055G: Ammonia as N	433'-'(-4	)0)(	mg/L	0.58	)0'6	17.5	0% - 20%
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: Benzene	4(-˜-	5	µg/L	<5	<5	)0)	No Limit
		EP074: Toluene	()6-66-˜	5	µg/L	<5	<5	)0)	No Limit
		EP074: Ethylbenzene	())-'(-'	5	µg/L	<5	<5	)0)	No Limit
		EP074: meta- & para-Oylene	108-38-3 ()3-' -˜	5	µg/L	<5	<5	)0)	No Limit
		EP074: Styrene	100-42-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: ortho-Oylene	95-47-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: Isopropylbenzene	96-6 -6	5	µg/L	<5	<5	)0)	No Limit
		EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.3.5-Trimethylbenzene	()6-34-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: tert-Butylbenzene	96-)3-3	5	µg/L	<5	<5	)0)	No Limit
		EP074: p-Isopropyltoluene	99-64-3	5	µg/L	<5	<5	)0)	No Limit
		EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	<5	)0)	No Limit
EP074B: Oxygenated Compounds (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: Pinyl Acetate	108-05-4	50	µg/L	<50	<50	)0)	No Limit

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Sub-; atriD: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074B: Oxygenated Compounds (QC Lot: 985153) - continued									
EB0907913-003	; A)˜	EP074: 2-Butanone <; EK=	46-9˜-˜	50	µg/L	<50	<50	)0)	No Limit
		EP074: 4-; ethyl-2-pentanone <; IBK=	()6-()-(	50	µg/L	<50	<50	)0)	No Limit
		EP074: 2-HeDanone <; BK=	591-78-6	50	µg/L	<50	<50	)0)	No Limit
EP074C: Sulfonated Compounds (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	)0)	No Limit
EP074D: Fumigants (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: 2.2-Dichloropropane	594-20-7	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: trans-1.3-Dichloropropylene	())3(-) -3	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2-Dibromoethane <EDB=	()3-9˜-'	5	µg/L	<5	<5	)0)	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: 1.1-Dichloroethene	75-35-4	5	µg/L	<5	<5	)0)	No Limit
		EP074: Iodomethane	4'-66-'	5	µg/L	<5	<5	)0)	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	5	µg/L	<5	<5	)0)	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2-Dichloroethane	()4-)3-	5	µg/L	<5	<5	)0)	No Limit
		EP074: Trichloroethene	49-)(-3	5	µg/L	<5	<5	)0)	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.3-Dichloropropane	(' - 6-9	5	µg/L	<5	<5	)0)	No Limit
		EP074: Tetrachloroethene	(4-(6-'	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	3˜)-)-3	5	µg/L	<5	<5	)0)	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2.3-Trichloropropane	93-(6-'	5	µg/L	<5	<5	)0)	No Limit
		EP074: Pentachloroethane	43-)(-4	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	93-(-6	5	µg/L	<5	<5	)0)	No Limit
		EP074: HeDachlorobutadiene	64-36-˜	5	µg/L	<5	<5	)0)	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	)0)	No Limit
		EP074: Chloromethane	4'-64-˜	50	µg/L	<50	<50	)0)	No Limit
		EP074: Pinyl chloride	75-01-4	50	µg/L	<50	<50	)0)	No Limit
		EP074: Bromomethane	4'-6˜-9	50	µg/L	<50	<50	)0)	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	)0)	No Limit

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Sub-; atriD: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 985153) - continued									
EB0907913-003	; A)˜	EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	)0)	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: Chlorobenzene	()6-9)-4	5	µg/L	<5	<5	)0)	No Limit
		EP074: Bromobenzene	()6-63-(	5	µg/L	<5	<5	)0)	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	)0)	No Limit
		EP074: 4-Chlorotoluene	()3-'˜-'	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.4-Dichlorobenzene	()3-'3-4	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2-Dichlorobenzene	95-50-1	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2.4-Trichlorobenzene	( )-6 -(	5	µg/L	<5	<5	)0)	No Limit
		EP074: 1.2.3-Trichlorobenzene	64-3(-3	5	µg/L	<5	<5	)0)	No Limit
EP074G: Trihalomethanes (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: Chloroform	34-33-˜	5	µg/L	<5	<5	)0)	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	)0)	No Limit
		EP074: Dibromochloromethane	(˜-'6-(	5	µg/L	<5	<5	)0)	No Limit
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	)0)	No Limit
EP074H: Naphthalene (QC Lot: 985153)									
EB0907913-003	; A)˜	EP074: Naphthalene	9(-)-˜	4	µg/L	C4	C4	)0)	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 985152)									
EB0907913-001	; A)(	EP080: C6 - C9 Fraction	---	)	µg/L	C)	C)	)0)	No Limit
EB0907913-011	; WB <CR14=	EP080: C6 - C9 Fraction	---	)	µg/L	C)	C)	)0)	No Limit
EP080: BTEX (QC Lot: 985152)									
EB0907913-001	; A)(	EP080: Benzene	4(-'˜-	(	µg/L	C(	C(	)0)	No Limit
		EP080: Toluene	()6-66-˜		µg/L	C	C	)0)	No Limit
		EP080: Ethylbenzene	())-'(-'		µg/L	C	C	)0)	No Limit
		EP080: meta- & para-Oylene	108-38-3 ()3-' -˜		µg/L	C	C	)0)	No Limit
		EP080: ortho-Oylene	95-47-6		µg/L	C	C	)0)	No Limit
EB0907913-011	; WB <CR14=	EP080: Benzene	4(-'˜-	(	µg/L	C(	C(	)0)	No Limit
		EP080: Toluene	()6-66-˜		µg/L	C	C	)0)	No Limit
		EP080: Ethylbenzene	())-'(-'		µg/L	C	C	)0)	No Limit
		EP080: meta- & para-Oylene	108-38-3 ()3-' -˜		µg/L	C	C	)0)	No Limit
		EP080: ortho-Oylene	95-47-6		µg/L	C	C	)0)	No Limit

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

The >uality control term ; ethod / Laboratory Blank refers to an analyte free matriD 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 >uality control term Laboratory Control Sample <LCS= refers to a certified reference material, or a known interference free matriD spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matriD Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-; atriD: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 984592)								
EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	C)0))(	0.100 mg/L	()3	75	125
EG020A-F: Cadmium	4")-'˜-9	)0)))(	mg/L	C)0)))(	0.100 mg/L	(('	49	(˜
EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	0.100 mg/L	((˜	6'	(6
EG020A-F: Copper	7440-50-8	)0))(	mg/L	C)0))(	0.200 mg/L	115	6(	((
EG020A-F: Lead	4'˜9-9 -(	)0))(	mg/L	C)0))(	0.100 mg/L	()4	6˜	(˜
EG020A-F: Nickel	4")-) -)	)0))(	mg/L	C)0))(	0.100 mg/L	((	46	('
EG020A-F: Zinc	4")-33-3	0.005	mg/L	<0.005	0.200 mg/L	(('	6(	(˜)
EG020F: Dissolved Metals by ICP-MS (QCLot: 984594)								
EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	C)0))(	0.100 mg/L	()˜	75	125
EG020A-F: Cadmium	4")-'˜-9	)0)))(	mg/L	C)0)))(	0.100 mg/L	(((	49	(˜
EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	0.100 mg/L	((	6'	(6
EG020A-F: Copper	7440-50-8	)0))(	mg/L	C)0))(	0.200 mg/L	(((	6(	((
EG020A-F: Lead	4'˜9-9 -(	)0))(	mg/L	C)0))(	0.100 mg/L	()˜	6˜	(˜
EG020A-F: Nickel	4")-) -)	)0))(	mg/L	C)0))(	0.100 mg/L	()9	46	('
EG020A-F: Zinc	4")-33-3	0.005	mg/L	<0.005	0.200 mg/L	()9	6(	(˜)
EG020F: Dissolved Metals by ICP-MS (QCLot: 987880)								
EG020A-F: Arsenic	4")-˜6-	)0))(	mg/L	C)0))(	0.100 mg/L	9606	75	125
EG020A-F: Cadmium	4")-'˜-9	)0)))(	mg/L	C)0)))(	0.100 mg/L	()	49	(˜
EG020A-F: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	0.100 mg/L	()6	6'	(6
EG020A-F: Copper	7440-50-8	)0))(	mg/L	C)0))(	0.200 mg/L	()	6(	((
EG020A-F: Lead	4'˜9-9 -(	)0))(	mg/L	C)0))(	0.100 mg/L	())	6˜	(˜
EG020A-F: Nickel	4")-) -)	)0))(	mg/L	C)0))(	0.100 mg/L	())	46	('
EG020A-F: Zinc	4")-33-3	0.005	mg/L	<0.005	0.200 mg/L	105	6(	(˜)
EG020T: Total Metals by ICP-MS (QCLot: 985487)								
EG020A-T: Arsenic	4")-˜6-	)0))(	mg/L	C)0))(	0.100 mg/L	95.8	4'	(('
EG020A-T: Cadmium	4")-'˜-9	)0)))(	mg/L	C)0)))(	0.100 mg/L	()4	4'	((6
EG020A-T: Chromium	4")-'4-˜	)0))(	mg/L	C)0))(	0.100 mg/L	((	6(	(4
EG020A-T: Copper	7440-50-8	)0))(	mg/L	C)0))(	0.200 mg/L	()6	75	((9
EG020A-T: Lead	4'˜9-9 -(	)0))(	mg/L	C)0))(	0.100 mg/L	()(	6)	((3
EG020A-T: Nickel	4")-) -)	)0))(	mg/L	C)0))(	0.100 mg/L	()3	75	((
EG020A-T: Zinc	4")-33-3	0.005	mg/L	<0.005	0.200 mg/L	()˜	4˜	(4
EG035F: Dissolved Mercury by FIMS (QCLot: 984591)								
EG035F: ; ercury	4'˜9-94-3	)0)))(	mg/L	C)0)))(	0.010 mg/L	9'03	6'	( )
EG035F: Dissolved Mercury by FIMS (QCLot: 984593)								

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Sub-; atriD: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EG035F: Dissolved Mercury by FIMS (QCLot: 984593) - continued								
EG035F: ; ercury	4'˜9-94-3	)0)))(	mg/L	C)0)))(	0.010 mg/L	9)03	6'	( )
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984931)								
EG035T: ; ercury	4'˜9-94-3	)0)))(	mg/L	C)0)))(	0.0100 mg/L	()(	6	(
EK055G: Ammonia as N by Discrete Analyser (QCLot: 989022)								
EK055G: Ammonia as N	433'-'(-4	)0)(	mg/L	C)0)(	0.5 mg/L	()'	4)	(6
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 985208)								
EP066: Total Polychlorinated biphenyls	----	(	µg/L	C(	10 µg/L	440'	56.7	((6
EP068A: Organochlorine Pesticides (OC) (QCLot: 985207)								
EP068: alpha-BHC	˜(9-6'-3	0.5	µg/L	<0.5	5 µg/L	6˜06	55	125
EP068: HeDachlorobenzene <HCB=	((6-4'-(	0.5	µg/L	<0.5	5 µg/L	84.5	51	((
EP068: beta-BHC	319-85-7	0.5	µg/L	<0.5	5 µg/L	690	54	(3
EP068: gamma-BHC	58-89-9	0.5	µg/L	<0.5	5 µg/L	6 0˜	53	(˜(
EP068: delta-BHC	˜(9-63-6	0.5	µg/L	<0.5	5 µg/L	3606	52	(˜(
EP068: Heptachlor	43-''-6	0.5	µg/L	<0.5	5 µg/L	9309	'˜	(6
EP068: Aldrin	˜)9-))-	0.5	µg/L	<0.5	5 µg/L	6'09	57	(3
EP068: Heptachlor epoDide	1024-57-3	0.5	µg/L	<0.5	5 µg/L	6˜0'	57	('
EP068: trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	5 µg/L	630(	53.4	( )
EP068: alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	5 µg/L	9(0˜	53	(˜(
EP068: cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	5 µg/L	85.7	52.4	( )
EP068: Dieldrin	60-57-1	0.5	µg/L	<0.5	5 µg/L	660˜	51	(6
EP068: 4.4`-DDE	72-55-9	0.5	µg/L	<0.5	5 µg/L	9)0(	54.8	125
EP068: Endrin	4 -)-6	0.5	µg/L	<0.5	5 µg/L	65.7	'90(	135
EP068: beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	5 µg/L	690'	54	(˜
EP068: 4.4`-DDD	72-54-8	0.5	µg/L	<0.5	5 µg/L	6309	54.3	(9
EP068: Endrin aldehyde	4' (-9˜-'	0.5	µg/L	<0.5	5 µg/L	6903	54.3	(4
EP068: Endosulfan sulfate	()˜(-)4-6	0.5	µg/L	<0.5	5 µg/L	# 42.8	'4	(˜3
EP068: 4.4`-DDT	50-29-3		µg/L	C	----	----	----	----
		0)	µg/L	----	5 µg/L	4'0'	')	(˜)
EP068: Endrin ketone	53494-70-5	0.5	µg/L	<0.5	5 µg/L	6'03	'˜	(˜4
EP068: ; ethoDychlor	72-43-5		µg/L	C	----	----	----	----
		0)	µg/L	----	5 µg/L	4606	')	(˜)
EP068B: Organophosphorus Pesticides (OP) (QCLot: 985207)								
EP068: Dichlorvos	3 -4˜-4	0.5	µg/L	<0.5	5 µg/L	6)04	53.6	(3
EP068: Demeton-S-methyl	9(9-63-6	0.5	µg/L	<0.5	5 µg/L	85.2	'90	135
EP068: ; onocrotophos	39 ˜- -'		µg/L	C	----	----	----	----
		0)	µg/L	----	5 µg/L	# Not Determined	17.5	())
EP068: Dimethoate	60-51-5	0.5	µg/L	<0.5	5 µg/L	65.4	51.3	125
EP068: Diazinon	333-41-5	0.5	µg/L	<0.5	5 µg/L	6˜04	52	(3

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Sub-; atriD: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low	Recovery Limits (%) High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 985207) - continued								
EP068: Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	5 µg/L	4406	54.6	(˜
EP068: Parathion-methyl	96-))-)		µg/L	C	----	----	----	----
		0)	µg/L	----	5 µg/L	3603	50	(˜)
EP068: ; alathion	121-75-5	0.5	µg/L	<0.5	5 µg/L	6)06	51	(9
EP068: Fenthion	55-38-9	0.5	µg/L	<0.5	5 µg/L	6˜0)	54	( )
EP068: Chlorpyrifos	9 (-66-	0.5	µg/L	<0.5	5 µg/L	85.7	57.6	(
EP068: Parathion	56-38-2		µg/L	C	----	----	----	----
		0)	µg/L	----	5 µg/L	6˜0˜	51.8	(3
EP068: Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	5 µg/L	# 48.4	54.7	(
EP068: Chlorfenvinphos	'4)-9)-3	0.5	µg/L	<0.5	5 µg/L	()4	54.7	(˜)
EP068: Bromophos-ethyl	'6 '-46-3	0.5	µg/L	<0.5	5 µg/L	9(0˜	54.8	( )
EP068: Fenamiphos	'-9 -3	0.5	µg/L	<0.5	5 µg/L	85.0	'60˜	(3
EP068: Prothiofos	˜'3'˜-'3-'	0.5	µg/L	<0.5	5 µg/L	6 09	53.7	((
EP068: Ethion	563-12-2	0.5	µg/L	<0.5	5 µg/L	6)06	54.6	(˜)
EP068: Carbophenothion	463-(9-3	0.5	µg/L	<0.5	5 µg/L	6˜09	53.4	(6
EP068: Azinphos ; ethyl	86-50-0	0.5	µg/L	<0.5	5 µg/L	'˜0	˜'	(˜)
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 985153)								
EP074: Benzene	4(-'˜-	5	µg/L	<5	10 µg/L	9˜0	75	(
EP074: Toluene	()6-66-˜	5	µg/L	<5	10 µg/L	95.5	4(0	('
EP074: Ethylbenzene	())-'(-'	5	µg/L	<5	10 µg/L	960(	43	( )
EP074: meta- & para-Oylene	108-38-3	5	µg/L	<5	20 µg/L	95.3	36	(˜
	()3-' -˜							
EP074: Styrene	100-42-5	5	µg/L	<5	10 µg/L	9609	36	(4
EP074: ortho-Oylene	95-47-6	5	µg/L	<5	10 µg/L	95.9	43	(
EP074: Isopropylbenzene	96-6 -6	5	µg/L	<5	10 µg/L	9'0(	4'	(˜
EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	10 µg/L	9409	4)	125
EP074: 1.3.5-Trimethylbenzene	()6-34-6	5	µg/L	<5	10 µg/L	960(	4'	((
EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	10 µg/L	960'	4	('
EP074: 1.2.4-Trimethylbenzene	95-63-6	5	µg/L	<5	10 µg/L	940)	73.5	('
EP074: tert-Butylbenzene	96-)3-3	5	µg/L	<5	10 µg/L	940'	4(03	(6
EP074: p-Isopropyltoluene	99-64-3	5	µg/L	<5	10 µg/L	9606	360˜	(˜)
EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	10 µg/L	97.5	34	(3
EP074B: Oxygenated Compounds (QCLot: 985153)								
EP074: Pinyl Acetate	108-05-4	50	µg/L	<50	100 µg/L	()(	65	('4
EP074: 2-Butanone <; EK=	46-9˜-˜	50	µg/L	<50	100 µg/L	390(	54	(˜)
EP074: 4-; ethyl-2-pentanone <; IBK=	()6-()-(	50	µg/L	<50	100 µg/L	(('	3˜	(˜4
EP074: 2-HeDanone <; BK=	591-78-6	50	µg/L	<50	100 µg/L	((4	3	135
EP074C: Sulfonated Compounds (QCLot: 985153)								
EP074: Carbon disulfide	75-15-0	5	µg/L	<5	10 µg/L	75.2	36	135

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Sub-; atriD: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Recovery Limits (%)
				Result	Concentration	LCS	Low	High
EP074D: Fumigants (QCLot: 985153)								
EP074: 2.2-Dichloropropane	594-20-7	5	µg/L	<5	10 µg/L	930'	3)04	(˜
EP074: 1.2-Dichloropropane	78-87-5	5	µg/L	<5	10 µg/L	9603	3904	(6
EP074: cis-1.3-Dichloropropylene	10061-01-5	5	µg/L	<5	20 µg/L	()	36	(˜(
EP074: trans-1.3-Dichloropropylene	())3(-) -3	5	µg/L	<5	20 µg/L	()'	34	(')
EP074: 1.2-Dibromoethane <EDB=	()3-9˜-'	5	µg/L	<5	10 µg/L	()3	360(	(˜
EP074E: Halogenated Aliphatic Compounds (QCLot: 985153)								
EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	100 µg/L	# 27.9	52	(˜)
EP074: Chloromethane	4'-64-˜	50	µg/L	<50	100 µg/L	56.8	'˜0(	(˜)
EP074: Pinyl chloride	75-01-4	50	µg/L	<50	100 µg/L	# 166	53	("
EP074: Bromomethane	4'-6˜-9	50	µg/L	<50	100 µg/L	460˜	57.5	(˜)
EP074: Chloroethane	75-00-3	50	µg/L	<50	100 µg/L	# 68.5	4)	(˜4
EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	100 µg/L	360	3'	135
EP074: 1.1-Dichloroethene	75-35-4	5	µg/L	<5	10 µg/L	630	3˜09	135
EP074: Iodomethane	4'-66-'	5	µg/L	<5	10 µg/L	4˜0'	57.2	(˜)
EP074: trans-1.2-Dichloroethene	156-60-5	5	µg/L	<5	10 µg/L	9)03	4)	(6
EP074: 1.1-Dichloroethane	75-34-3	5	µg/L	<5	10 µg/L	930(	3'	(˜3
EP074: cis-1.2-Dichloroethene	156-59-2	5	µg/L	<5	10 µg/L	()(	4(	(6
EP074: 1.1.1-Trichloroethane	71-55-6	5	µg/L	<5	10 µg/L	96.5	360'	135
EP074: 1.1-Dichloropropylene	563-58-6	5	µg/L	<5	10 µg/L	9'06	4(0'	(4
EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	10 µg/L	930'	3'	(˜'
EP074: 1.2-Dichloroethane	()4-)3-	5	µg/L	<5	10 µg/L	()	36	(˜'
EP074: Trichloroethene	49-)(-3	5	µg/L	<5	10 µg/L	95.6	4	(4
EP074: Dibromomethane	74-95-3	5	µg/L	<5	10 µg/L	()'	3˜09	(˜3
EP074: 1.1.2-Trichloroethane	79-00-5	5	µg/L	<5	10 µg/L	((	390	(˜˜
EP074: 1.3-Dichloropropane	(' - 6-9	5	µg/L	<5	10 µg/L	(()	4˜04	(˜)
EP074: Tetrachloroethene	(4-(6-'	5	µg/L	<5	10 µg/L	9604	4˜06	(˜
EP074: 1.1.1.2-Tetrachloroethane	3˜)-)-3	5	µg/L	<5	10 µg/L	()'	6(	(˜
EP074: trans-1.4-Dichloro-2-butene	110-57-6	5	µg/L	<5	10 µg/L	((3	3	(˜)
EP074: cis-1.4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	10 µg/L	6904	51.1	(˜)
EP074: 1.1.2.2-Tetrachloroethane	79-34-5	5	µg/L	<5	10 µg/L	()6	4	(˜˜
EP074: 1.2.3-Trichloropropane	93-(6-'	5	µg/L	<5	10 µg/L	(((	59	('6
EP074: Pentachloroethane	43-)(-4	5	µg/L	<5	10 µg/L	()	36	(˜6
EP074: 1.2-Dibromo-3-chloropropane	93-(-6	5	µg/L	<5	10 µg/L	(((	52	150
EP074: Hexachlorobutadiene	64-36-˜	5	µg/L	<5	10 µg/L	690	3	('
EP074F: Halogenated Aromatic Compounds (QCLot: 985153)								
EP074: Chlorobenzene	()6-9)-4	5	µg/L	<5	10 µg/L	9309	44	( )
EP074: Bromobenzene	()6-63-(	5	µg/L	<5	10 µg/L	()(	43	(
EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	10 µg/L	930	75.3	('
EP074: 4-Chlorotoluene	()3-˜'-'	5	µg/L	<5	10 µg/L	())	43	( )

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Sub-; atriD: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP074F: Halogenated Aromatic Compounds (QCLot: 985153) - continued								
EP074: 1.3-Dichlorobenzene	541-73-1	5	µg/L	<5	10 µg/L	())	75.2	( )
EP074: 1.4-Dichlorobenzene	()3-'3-4	5	µg/L	<5	10 µg/L	95.6	430(	((9
EP074: 1.2-Dichlorobenzene	95-50-1	5	µg/L	<5	10 µg/L	990)	4404	((6
EP074: 1.2.4-Trichlorobenzene	( )-6 -(	5	µg/L	<5	10 µg/L	9 0(	360˜	(6
EP074: 1.2.3-Trichlorobenzene	64-3(-3	5	µg/L	<5	10 µg/L	9˜0)	75	125
EP074G: Trihalomethanes (QCLot: 985153)								
EP074: Chloroform	34-33-˜	5	µg/L	<5	10 µg/L	9606	4(0(	(4
EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	()	36	(˜
EP074: Dibromochloromethane	('-'6-(	5	µg/L	<5	10 µg/L	115	39	(˜)
EP074: Bromoform	75-25-2	5	µg/L	<5	10 µg/L	(()	3	(˜4
EP074H: Naphthalene (QCLot: 985153)								
EP074: Naphthalene	9(-)-˜	4	µg/L	C4	10 µg/L	9(03	6˜0(	((9
EP075(SIM)A: Phenolic Compounds (QCLot: 985209)								
EP075<" ;= : Phenol	108-95-2	(	µg/L	----	5 µg/L	9.5	'	4)
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2-Chlorophenol	95-57-8	(	µg/L	----	5 µg/L	60.5	57	105
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2-; ethylphenol	95-48-7	(	µg/L	----	5 µg/L	57.9	51	93
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 3- & 4-; ethylphenol	(˜(9-44-˜		µg/L	----	10 µg/L	55.2	45	9'
		0)	µg/L	C 0)	----	----	----	----
EP075<" ;= : 2-Nitrophenol	88-75-5	(	µg/L	----	5 µg/L	3304	'6	(˜
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2.4-Dimethylphenol	105-67-9	(	µg/L	----	5 µg/L	3304	''	((
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2.4-Dichlorophenol	( )-6˜-	(	µg/L	----	5 µg/L	6(06	3)	('
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2.6-Dichlorophenol	87-65-0	(	µg/L	----	5 µg/L	# 58.4	59	115
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 4-Chloro-3-; ethylphenol	59-50-7	(	µg/L	----	5 µg/L	3903	3)	((4
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2.4.6-Trichlorophenol	66-)3-	(	µg/L	----	5 µg/L	3306	59	(˜
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : 2.4.5-Trichlorophenol	95-95-4	(	µg/L	----	5 µg/L	3'09	59	(˜
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Pentachlorophenol	87-86-5		µg/L	----	10 µg/L	())	0(	(˜)
		0)	µg/L	C 0)	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 985209)								

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Sub-; atriD: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 985209) - continued								
EP075<" ;= : Naphthalene	9(-)-˜	(	µg/L	----	5 µg/L	330	'3	(((
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Acenaphthylene	)6-93-6	(	µg/L	----	5 µg/L	3˜06	51	((
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Acenaphthene	6˜-˜ -9	(	µg/L	----	5 µg/L	65.8	50	((
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Fluorene	63-4˜-4	(	µg/L	----	5 µg/L	3˜0	55	((6
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Phenanthrene	85-01-8	(	µg/L	----	5 µg/L	6˜0(	54	(()
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Anthracene	( )-(-4	(	µg/L	----	5 µg/L	490'	'9	((4
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Fluoranthene	)3-"-)	(	µg/L	----	5 µg/L	490(	51	((4
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Pyrene	(9-))-)	(	µg/L	----	5 µg/L	6)0(	51	((4
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Benz<a=anthracene	56-55-3	(	µg/L	----	5 µg/L	6306	53	( )
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Chrysene	(6-)(-9	(	µg/L	----	5 µg/L	4'09	'6	((
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Benzo<b=fluoranthene	205-99-2	(	µg/L	----	5 µg/L	4606	'6	(˜)
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Benzo< =fluoranthene	)4-)6-9	(	µg/L	----	5 µg/L	65.2	'˜	(3
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Benzo<a=pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	390)	''	( )
EP075<" ;= : Indeno<1.2.3.cd=pyrene	193-39-5	(	µg/L	----	5 µg/L	4(0	45	(9
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Dibenz<a.h=anthracene	53-70-3	(	µg/L	----	5 µg/L	4 04	'4	(˜(
		(0)	µg/L	C(0)	----	----	----	----
EP075<" ;= : Benzo<=0*0=perylene	(9(- '-	(	µg/L	----	5 µg/L	3309	'	(3
		(0)	µg/L	C(0)	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons (QCLot: 985152)								
EP080: C6 - C9 Fraction	----	)	µg/L	C)	160 µg/L	9903	4˜	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 985206)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	600 µg/L	3)03	'9	(()
EP071: C15 - C28 Fraction	----	())	µg/L	C())	1020 µg/L	440)	58	(˜)
EP071: C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----
EP080: BTEX (QCLot: 985152)								
EP080: Benzene	4(-'˜-	(	µg/L	C(	10 µg/L	930'	4403	(

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Sub-; atriD: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080: BTEX (QCLot: 985152) - continued								
EP080: Toluene	()6-66-˜		µg/L	C	10 µg/L	9903	4'	(
EP080: Ethylbenzene	())-'(-'		µg/L	C	10 µg/L	990)	4˜	(3
EP080: meta- & para-Oylene	108-38-3 ()3-' -7		µg/L	C	20 µg/L	990)	4)0'	(9
EP080: ortho-Oylene	95-47-6		µg/L	C	10 µg/L	990¨	4'0¨	(3

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Matrix Spike (MS) Report

The >uality control term ; atriD Spike <; ˝ = refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matriD 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 matriDinterference.

Sub-; atriD: **WATER**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 984592)							
EB0907768-002	Anonymous	EG020A-F: Arsenic	4")-˜6-	.1 mg/L	# Not Determined	4)	(˜)
		EG020A-F: Cadmium	4")-'˜-9	0.100 mg/L	()4	4)	(˜)
		EG020A-F: Chromium	4")-'4-˜	0.100 mg/L	()3	4)	(˜)
		EG020A-F: Copper	7440-50-8	.15 mg/L	()'	4)	(˜)
		EG020A-F: Lead	4˜9-9 -(	0.100 mg/L	()(	4)	(˜)
		EG020A-F: Nickel	4")-) -)	0.100 mg/L	()3	4)	(˜)
		EG020A-F: Zinc	4")-33-3	.2 mg/L	115	4)	(˜)
EG020F: Dissolved Metals by ICP-MS (QCLot: 984594)							
EB0907954-004	Anonymous	EG020A-F: Arsenic	4")-˜6-	0.100 mg/L	()'	4)	(˜)
		EG020A-F: Cadmium	4")-'˜-9	0.100 mg/L	()4	4)	(˜)
		EG020A-F: Chromium	4")-'4-˜	0.100 mg/L	9604	4)	(˜)
		EG020A-F: Copper	7440-50-8	.15 mg/L	9904	4)	(˜)
		EG020A-F: Lead	4˜9-9 -(	0.100 mg/L	()(	4)	(˜)
		EG020A-F: Nickel	4")-) -)	0.100 mg/L	990(	4)	(˜)
		EG020A-F: Zinc	4")-33-3	.2 mg/L	()'	4)	(˜)
EG020T: Total Metals by ICP-MS (QCLot: 985487)							
EB0907698-008	Anonymous	EG020A-T: Arsenic	4")-˜6-	1.000 mg/L	())	4)	(˜)
		EG020A-T: Cadmium	4")-'˜9	0.500 mg/L	960	4)	(˜)
		EG020A-T: Chromium	4")-'4-˜	1.000 mg/L	9406	4)	(˜)
		EG020A-T: Copper	7440-50-8	1.000 mg/L	930(	4)	(˜)
		EG020A-T: Lead	4˜9-9 -(	1.000 mg/L	9(0)	4)	(˜)
		EG020A-T: Nickel	4")-) -)	1.000 mg/L	9303	4)	(˜)
		EG020A-T: Zinc	4")-33-3	1.000 mg/L	9'0)	4)	(˜)
EG035F: Dissolved Mercury by FIMS (QCLot: 984591)							
EB0907768-002	Anonymous	EG035F: ; ercury	4˜9-94-3	0.010 mg/L	4606	4)	(˜)
EG035F: Dissolved Mercury by FIMS (QCLot: 984593)							
EB0907913-004	; A)'	EG035F: ; ercury	4˜9-94-3	0.010 mg/L	4˜06	4)	(˜)
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984931)							
EB0907936-001	Anonymous	EG035T: ; ercury	4˜9-94-3	0.010 mg/L	9'0)	4)	(˜)
EK055G: Ammonia as N by Discrete Analyser (QCLot: 989022)							
EB0907910-003	Anonymous	EK055G: Ammonia as N	433'-'(-4	0.4 mg/L	# Not Determined	4)	(˜)
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 985153)							
EB0907913-004	; A)'	EP074: Benzene	4(-'˜-	10 µg/L	()	4)	(˜)
		EP074: Toluene	()6-66-˜	10 µg/L	9604	4)	(˜)

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Sub-; atriD: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
					MS	Low	High
EP074E: Halogenated Aliphatic Compounds (QCLot: 985153)							
EB0907913-004	; A)'	EP074: 1.1-Dichloroethene	75-35-4	10 µg/L	(3	4)	(˜)
		EP074: Trichloroethene	49-)(-3	10 µg/L	9906	4)	(˜)
EP074F: Halogenated Aromatic Compounds (QCLot: 985153)							
EB0907913-004	; A)'	EP074: Chlorobenzene	()6-9)-4	10 µg/L	()(	4)	(˜)
EP080/071: Total Petroleum Hydrocarbons (QCLot: 985152)							
EB0907913-002	; A)	EP080: C6 - C9 Fraction	----	140 µg/L	9˜0)	4)	(˜)
EP080: BTEX (QCLot: 985152)							
EB0907913-002	; A)	EP080: Benzene	4(-'˜-	10 µg/L	(('	4)	(˜)
		EP080: Toluene	()6-66-˜	10 µg/L	()3	4)	(˜)

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

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Work Order	: **EB0907913**	Pa=e	: (of (2
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: 0000	Telephone	: +61-7-3243 7222
Facsimile	: 0000	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park		
C-O-C number	: 0000	Date Samples Received	: 19-MAY-2009
Sampler	: O Kana & M McLeod	Issue Date	: 27-MAY-2009
Order number	: 0000	No. of samples received	: *)
Quote number	: EN/003/09	No. of samples analysed	: *)

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

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Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 9)6 , ^:°^ , AS and NEPM =*<<<). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

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Matrix: **WATER**

Evaluation: × H Holding time breach ; ✓ H Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Amber Glass Bottle - Unpreserved							
F+9	**19-MAY-2009**	---	000	0000	**20-MAY-2009**	15-NOV-2009	✓
Clear Plastic Bottle - Filtered; Lab-acidified							
F+*(MW02, F+%(F+)(F+6(F+7(DUP04	**18-MAY-2009**	---	000	0000	**20-MAY-2009**	14-NOV-2009	✓
Clear Plastic Bottle - Filtered; Lab-acidified							
F+/(F+<(MWA (CR13), MWB (CR14), MWC (CR15)	**19-MAY-2009**	---	000	0000	**20-MAY-2009**	15-NOV-2009	✓
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Unfiltered; Lab-acidified							
Rinsate/ Rinsate 4	**18-MAY-2009**	**21-MAY-2009**	14-NOV-2009	✓	**21-MAY-2009**	14-NOV-2009	✓
EG035F: Dissolved Mercury by FIMS							
Amber Glass Bottle - Unpreserved							
F+9	**19-MAY-2009**	---	000	0000	**20-MAY-2009**	02-JUN-2009	✓
Clear Plastic Bottle - Filtered; Lab-acidified							
F+*(MW02, F+%(F+)(F+6(F+7(DUP04	**18-MAY-2009**	---	000	0000	**20-MAY-2009**	15-JUN-2009	✓
Clear Plastic Bottle - Filtered; Lab-acidified							
F+/(F+<(MWA (CR13), MWB (CR14), MWC (CR15)	**19-MAY-2009**	---	000	0000	**20-MAY-2009**	16-JUN-2009	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Unfiltered; Lab-acidified							
Rinsate/ Rinsate 4	**18-MAY-2009**	----	0000	0000	**21-MAY-2009**	15-JUN-2009	✓

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Matrix: **WATER**

Evaluation: × H Holding time breach ; ✓ H Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulphuric Acid							
F+*(MW02, F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**26-MAY-2009**	15-JUN-2009	✓
Clear Plastic Bottle - Sulphuric Acid							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**26-MAY-2009**	16-JUN-2009	✓
EP066: Polychlorinated Biphenyls (PCB)							
Amber Glass Bottle - Unpreserved							
F+%(F+)(F+6(F+7	**18-MAY-2009**	**21-MAY-2009**	25-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
F+/(F+<(MWB (CR14)	**19-MAY-2009**	**21-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
F+9	**19-MAY-2009**	**22-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
EP068A: Organochlorine Pesticides (OC)							
Amber Glass Bottle - Unpreserved							
F+%(F+)(F+6(F+7	**18-MAY-2009**	**21-MAY-2009**	25-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
F+/(F+<(MWB (CR14)	**19-MAY-2009**	**21-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
F+9	**19-MAY-2009**	**22-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
EP068B: Organophosphorus Pesticides (OP)							
Amber Glass Bottle - Unpreserved							
F+%(F+)(F+6(F+7	**18-MAY-2009**	**21-MAY-2009**	25-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
F+/(F+<(MWB (CR14)	**19-MAY-2009**	**21-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
F+9	**19-MAY-2009**	**22-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓

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Matrix: **WATER**

Evaluation: × H Holding time breach ; ✓ H Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074B: Oxygenated Compounds							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP074C: Sulfonated Compounds							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP074D: Fumigants							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP074E: Halogenated Aliphatic Compounds							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP074F: Halogenated Aromatic Compounds							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP074G: Trihalomethanes							
Amber VOC Vial - HCl or NaHSO4							
F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓

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Matrix: **WATER**

Evaluation: × H Holding time breach ; ✓ H Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074H: Naphthalene							
Amber VOC Vial - HCl or NaHSO4 F+%(F+)(F+6(F+7	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4 F+/(F+9(F+<(MWB (CR14)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP075(SIM)A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved F+%(F+)(F+6(F+7	**18-MAY-2009**	**21-MAY-2009**	25-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved F+/(F+<(MWB (CR14)	**19-MAY-2009**	**21-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved F+9	**19-MAY-2009**	**22-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved F+%(F+)(F+6(F+7	**18-MAY-2009**	**21-MAY-2009**	25-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved F+/(F+<(MWB (CR14)	**19-MAY-2009**	**21-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved F+9	**19-MAY-2009**	**22-MAY-2009**	26-MAY-2009	✓	**23-MAY-2009**	01-JUL-2009	✓

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Matrix: **WATER**

Evaluation: × H Holding time breach ; ✓ H Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved F+*(, MW02, F+%(, F+)(F+6(, F+7(DUP04	**18-MAY-2009**	**21-MAY-2009**	25-MAY-2009	✓	**22-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved Rinsate/ Rinsate 4	**18-MAY-2009**	**22-MAY-2009**	25-MAY-2009	✓	**22-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved F+/(, F+<(MWA (CR13), MWB (CR14), MWC (CR15)	**19-MAY-2009**	**21-MAY-2009**	26-MAY-2009	✓	**22-MAY-2009**	01-JUL-2009	✓
Amber Glass Bottle - Unpreserved F+9	**19-MAY-2009**	**22-MAY-2009**	26-MAY-2009	✓	**22-MAY-2009**	01-JUL-2009	✓
Amber VOC Vial - HCl or NaHSO4 F+*(, MW02, F+%(, F+)(F+6(, F+7(DUP04, Rinsate/ Rinsate 4	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4 F+/(, F+9(F+<(, MWA (CR13), MWB (CR14), MWC (CR15)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4 F+*(, MW02, F+%(, F+)(F+6(, F+7(DUP04, Rinsate/ Rinsate 4	**18-MAY-2009**	---	000	0000	**21-MAY-2009**	01-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4 F+/(, F+9(F+<(, MWA (CR13), MWB (CR14), MWC (CR15)	**19-MAY-2009**	---	000	0000	**21-MAY-2009**	02-JUN-2009	✓

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Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER** Evaluation: × H Qualit Control fre?uenc not within s4ecification G✓ H Qualit Control fre?uenc within s4ecification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	12	**16.7**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	)	%9	**10.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	)	%7	**10.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	2+	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	2	1<	**10.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	2+	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	*	9	**12.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	*	* 2	**8.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	2	39	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	%	%8	**7.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	*	*)	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides	EP068	*	* *	**9.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	*	* *	**9.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	2+	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	*	* <	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	2+	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	2+	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	*	9	**12.5**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	*	* 2	**8.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	2	39	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	%	%8	**7.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	*	*)	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides	EP068	*	* *	**9.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	*	* *	**9.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	2+	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	*	* <	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	2+	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	2+	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	*	9	**12.5**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	*	* 2	**8.3**	**5.0**	✓	ALS QCS3 requirement
Dissolved Mercury by FIMS	EG035F	2	39	**5.3**	**5.0**	✓	ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	37	**5.4**	**5.0**	✓	ALS QCS3 requirement

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Matrix: **WATER**

Evaluation: × H Qualit Control fre?uenc not within s4ecification G✓ H Qualit Control fre?uenc within s4ecification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS) - Continued							
Total Mercury by FIMS	EG035T	1	2+	**5.0**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	*	* <	**5.3**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	2+	**5.0**	**5.0**	✓	ALS QCS3 requirement
Volatile Organic Compounds	EP074	*	9	**12.5**	**5.0**	✓	ALS QCS3 requirement

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Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Total Mercury by FIMS	EG035T	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Ammonia as N by Discrete analyser	EK055G	WATER	APHA 21st ed., 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Polychlorinated Biphenyls (PCB)	EP066	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Pesticides	EP068	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

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Analytical Methods	Method	Matrix	Method Descriptions
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals	EN25	WATER	USEPA SW846-3005 Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Separatory Funnel Extraction of Liquids	#˙,*)	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.

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Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP068A: Organochlorine Pesticides (OC)	1128581-008	0000	**Endosulfan sulfate**	*+%*0+709	42.8 %	)70*%6L	**Recovery less than lower control limit**
EP068B: Organophosphorus Pesticides (OP)	1128581-008	0000	**Monocrotophos**	6923-22-4	Not Determined	0000	**Standard recovery not determined, result less than LOR**
EP068B: Organophosphorus Pesticides (OP)	1128581-008	0000	**Pirimphos-ethyl**	23505-41-1	48.4 %	54.7-122%	**Recovery less than lower control limit**
EP074E: Halogenated Aliphatic Compounds	1128525-008	0000	**Dichlorodifluoromethane**	7/07*09	27.9 %	52-130%	**Recovery less than lower control limit**
EP074E: Halogenated Aliphatic Compounds	1128525-008	0000	**Vinyl chloride**	7/0+*0)	166 %	/%0*))L	**Recovery greater than upper control limit**
EP074E: Halogenated Aliphatic Compounds	1128525-008	0000	**Chloroethane**	7/0++0%	68.5 %	7+0*%7L	**Recovery less than lower control limit**
EP075(SIM)A: Phenolic Compounds	1128581-015	0000	**2.6-Dichlorophenol**	9706/0+	58.4 %	/<0**/L	**Recovery less than lower control limit**
Matrix Spike (MS) Recoveries							
EG020F: Dissolved Metals by ICP-MS	EB0907768-002	Anonymous	**Arsenic**	7440-38-2	Not Determined	0000	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK055G: Ammonia as N by Discrete Analyser	EB0907910-003	Anonymous	**Ammonia as N**	766)0)*07	Not Determined	0000	**MS recovery not determined, background level greater than or equal to 4x spike level.**

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**

Regular Sample Surrogates

Sub-Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)T: PAH Surrogates	EB0907913-004	F+)	**2-Fluorobiphenyl**	321-60-8	33.7 %	43-116 %	**Recovery less than lower data quality objective**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- **No Analysis Holding Time Outliers exist.**

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Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

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SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0907913**

Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET S˘ UTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	$ okanas@skm.com.au	E-mail	$ Services.Brisbane@alsenviro.com
Telephone	$ %%%%	Telephone	$ +61-7-3243 7222
Facsimile	$ %%%%	Facsimile	$ +61-7-3243 7218
3˙°4˝*˄	$ QE09537	Page	$ 1 °¸ 3
Order number	$ %%%%		
C-O-C number	$ %%%%	Quote number	$ ES2009SINKNI0322 (EN/003/09=
Site	$ Cronulla Park		
Sampler	$ O Kana & M McLeod	QC Level	$ NEPM 1999 Schedule B(3= and ALS QCS3 requirement

Dates

Date Samples Received	$ 19-MAY-2009	Issue Date	$ 20-MAY-2009 16:46
Client Requested Due Date	$ 26-MAY-2009	Scheduled Reporting Date	$ **27-MAY-2009**

Delivery Details

Mode of Delivery	$ Client Drop off	Temperature	$ 20.0, 18.0, 19.4'C
No. of coolers/boxes	$ 3 MEDIUM	No. of samples received	$ 14
Sercurity Seal	$ Intact.	No. of samples analysed	$ 14

General Comments

- This report contains the following information:
  - % Sample Container(s≠Preservation Non-Compliances
  - % Summary of Sample(s=and Requested Analysis
  - % Requested Deliverables
- Sample containers do not comply to pretreatment / preservation standards (AS, APHA, USEPA= Please refer to the Sample Container(s≠Preservation Non-Compliance Log at the end of this report for details.
- Samples submitted for dissolved metals analysis should be acidified with nitric acid, following field filtration. Additional charges of up to $5.00 will apply to each sample requiring filtration and preservation upon receipt by the laboratory.
- **Sample containers do not comply to pretreatment / preservation standards (AS, APHA, USEPA). Please refer to the Sample Container(s)/Preservation Non-Compliance Log at the end of this report for details.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days=; Solid (90 days=from date of completion of work order.

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Sample Container(s)/Preservation Non-Compliances

ll comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Client sample ID	Sample Container Received	Preferred Sample Container for Analysis
EG020A-F : Dissolved Metals by ICP-MS - Suite A		
MW08	- Amber Glass Bottle - Unpreserved	- Clear Plastic Bottle - Nitric Acid; Filtered
EG035F : Dissolved Mercury by FIMS		
MW08	- Amber Glass Bottle - Unpreserved	- Clear Plastic Bottle - Nitric Acid; Filtered

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laborator@ process neccessary for the execution of client ´˝>˜˝ ^˜˜ tas' . Packages may contain additional analys˝ , uch as the determination of moisture content and preparation tasks, that are included in the package.
When date(s= and/or ^"&˝: = are shown bracketed, these have been assumed by the laboratory for -´°*˝ "˜6 -˜´-° ˝ . If the ampling time " ˜" played as 0:00 the information was not provided by client.

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EP074 (water= Volatile Organic Compounds	WATER - W-05 TPH/BTEX/8 Metals	WATER - W-05T TPH/BTEX/8 Metals (Total=	WATER - W-19 TPH/BTX/P/Ph/OC/OP/PCB/8 metals
EB0907913-001	18-MAY-2009 11:00	MW01	✓		✓		
EB0907913-002	18-MAY-2009 11:00	MW02	✓		✓		
EB0907913-003	18-MAY-2009 11:00	MW03	✓	✓			✓
EB0907913-004	18-MAY-2009 11:00	MW04	✓	✓			✓
EB0907913-005	19-MAY-2009 11:00	MW05	✓	✓			✓
EB0907913-006	18-MAY-2009 11:00	MW06	✓	✓			✓
EB0907913-007	18-MAY-2009 11:00	MW07	✓	✓			✓
EB0907913-008	19-MAY-2009 11:00	MW08	✓	✓			✓
EB0907913-009	19-MAY-2009 11:00	MW09	✓	✓			✓
EB0907913-010	19-MAY-2009 11:00	MWA (CR13=			✓		
EB0907913-011	19-MAY-2009 11:00	MWB (CR14=	✓	✓			✓
EB0907913-012	19-MAY-2009 11:00	MWC (CR15=			✓		
EB0907913-013	18-MAY-2009 11:00	DUP04			✓		
EB0907913-014	18-MAY-2009 11:00	Rinsate/ Rinsate 4				✓	

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Requested Deliverables

MR JEREMY WICKS

%*AU Certificate of Analysis - NATA (COA =	Email	jwicks@skm.com.au
%*AU Interpretive QC Report - DEFAULT (Anon QCI Rep=(QCI =	Email	jwicks@skm.com.au
%*AU QC Report - DEFAULT (Anon QC Rep=- NATA (QC =	Email	jwicks@skm.com.au
%A4 - AU Sample Receipt Notification - Environmental (SRN =	Email	jwicks@skm.com.au
%A4 - AU Tax Invoice (INV =	Email	jwicks@skm.com.au
%Default - Chain of Custody (COC =	Email	jwicks@skm.com.au
%EDI Format - ENMRG (ENMRG =	Email	jwicks@skm.com.au
%EDI Format - ESDAT (ESDAT =	Email	jwicks@skm.com.au
%EDI Format - XTab (XTAB =	Email	jwicks@skm.com.au

ONA KANAS

%*AU Certificate of Analysis - NATA (COA =	Email	okanas@skm.com.au
%*AU Interpretive QC Report - DEFAULT (Anon QCI Rep=(QCI =	Email	okanas@skm.com.au
%*AU QC Report - DEFAULT (Anon QC Rep=- NATA (QC =	Email	okanas@skm.com.au
%A4 - AU Sample Receipt Notification - Environmental (SRN =	Email	okanas@skm.com.au
%Default - Chain of Custody (COC =	Email	okanas@skm.com.au
%EDI Format - ENMRG (ENMRG =	Email	okanas@skm.com.au
%EDI Format - ESDAT (ESDAT =	Email	okanas@skm.com.au
%EDI Format - XTab (XTAB =	Email	okanas@skm.com.au

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

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Work Order	: **EB0907967**	Page	: of 12
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREE SOUTH B#$˜ B¸˝ E QLD, AUSTRALIA 410	Address	: 32 Shand Street Stafford QLD Australia 40,"
E-mail	: o4anas5 s4˜ 6com6au	E-mail	: Services.Brisbane5 alsenviro6com
Tele7hone	: 3333	Tele7hone	: +6 -7-3243 7222
Facsimile	: 3333	Facsimile	: +6 -7-3243 7219
Pro:ect	: ' E09," 7	QC Level	: ˝ EP; 1999 Schedule B(" =and ALS QCS3 re>uirement
Order number	: 3333		
C3 3C number	: 3333	Date Sam7les Received	: 9-M¸ ?32009
Sam7ler	: O KANAS	Issue Date	: 27-M¸ ?32009
Site	: Cronulla Par4		
		No6of sam7les received	: 21
Quote number	: E˝ /00" /09	No6of sam7les analysed	: 12

This re7ort su7ersedes any 7revious re7ort<s= Aith this reference6 Results a77ly to the sam7le<s= as submitted6 All 7ages of this re7ort have been chec4ed and a77roved for release6

This Certificate of Analysis contains the folloAing information:

- Beneral Comments
- Analytical Results
- Surrogate Control Limits

NATA Accredited Laboratory 925

This document is issued in accordance Aith NATA accreditation re>uirements6

Accredited for com7liance Aith $˜ @EC 170256

Signatories

This document has been electronically signed by the authoriCed signatories indicated beloA6 Electronic signing has been carried out in com7liance Aith 7rocedures s7ecified in 21 CFR Part 116

Signatories	*Position*	*Accreditation Category*
Kim ; cCabe	Senior Inorganic Chemist	Inorganics
; attheA BoodAin	Senior Organic Chemist	Organics
Sarah AshAorth	Organic Chemist	Organics

General Comments

The analytical 7rocedures used by the Environmental Division have been develo7ed from established internationally recogniCed 7rocedures such as those 7ublished by the %˜EPA, APHA, AS and ˜EP;6 In house develo7ed 7rocedures are em7loyed in the absence of documented standards or by client re>uest6

E here moisture determination has been 7erformed, results are re7orted on a dry Aeight basis6

E here a re7orted less than <G=result is higher than the LOR, this may be due to 7rimary sam7le eDtract@igestate dilution and@or insuffient sam7le for analysis6

E here the LOR of a re7orted result differs from standard LOR, this may be due to high moisture content, insufficient sam7le <reduced Aeight em7loyed=or matriDinterference6

E hen date<s=and@or time<s=are shoAn brac4eted, these have been assumed by the laboratory for 7rocessing 7ur7oses6If the sam7ling time is dis7layed as 0:00 the information Aas not 7rovided by client6

Key : CAS Number HCAS registry number from database maintained by Chemical Abstracts Services6The Chemical Abstracts Service is a division of the American Chemical Society6
LOR HLimit of re7orting
^ HThis result is com7uted from individual analyte detections at or above the level of re7orting

- **EG005T (Total Metals): Sample EB0907724-015 shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.**
- **EG005T (Total Metals): Sample EB0907724-016 shows poor matrix spike recovery due to matrix interference. Confirmed by visual inspection.**
- **EG005T (Total Metals): Sample EB0907953-002 shows poor duplicate results due to sample heterogeneity. Confirmed by visual inspection.**
- **Pesticides: Poor matrix spike recovery for sample TP5 0.2-0.3 due to matrix interference. Confirmed by re-analysis.**

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Analytical Results

Sub3; atriD: SOIL	Client sample ID	TP1 0.2-0.3	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3	TP5 0.2-0.3
	Client sampling date / time	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
Compound	CAS Number / LOR / Unit	EB0907967-002	EB0907967-003	EB0907967-005	EB0907967-007	EB0907967-009
EA055: Moisture Content						
^ Moisture Content (dried @ 103°C)	3333 .0	15.6	17.8	15.7	19.1	10.5
EG005T: Total Metals by ICP-AES						
Arsenic	7)) 0-"932 , mg@4	G	G	G	G	G
Cadmium	7)) 0-)" -9 mg@4	G	G	G	G	G
Chromium	7)) 0-)7-" 2 mg@4	13	5	5	8	6
Copper	7)) 0-, 0-8 , mg@4	G	G	G	G	G
Lead	7)" 9-923 , mg@4	21	G	G	G	G
Nickel	7)) 0-02-0 2 mg@4	G2	G2	G2	G2	G2
Zinc	7)) 0-66-6 , mg@4	17	G	G	G	G
EG035T: Total Recoverable Mercury by FIMS						
Mercury	7)" 9-97-6 0. mg@4	<0.	<0.	<0.	<0.	<0.
EP066: Polychlorinated Biphenyls (PCB)						
Total Polychlorinated biphenyls	3333 0. 0 mg@4	3333	3333	3333	<0. 0	<0. 0
EP068A: Organochlorine Pesticides (OC)						
alpha-BHC	" 9-8)-6 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Hexachlorobenzene (HCB)	8-7)3 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
beta-BHC	" 9-8, -7 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
gamma-BHC	, 8-89-9 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
delta-BHC	" 9-86-8 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Heptachlor	76-)) 39 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Aldrin	"09-00-2 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Heptachlor epoxide	0243 7-" 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
trans-Chlordane	, 0"-7)32 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
alpha-Endosulfan	9, 9-98-8 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
cis-Chlordane	, 0"-7 -9 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Dieldrin	60-, 7- 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
4.4`-DDE	723, -9 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Endrin	72320-8 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
beta-Endosulfan	33213-6, -9 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
4.4`-DDD	723) 39 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Endrin aldehyde	7421-9"3 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Endosulfan sulfate	0" -07-8 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
4.4`-DDT	, 0-29-" 0.2 mg@4	3333	3333	3333	<0.2	<0.2
Endrin ketone	,") 9)-70-, 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,
Methoxychlor	723" 3 0.2 mg@4	3333	3333	3333	<0.2	<0.2
EP068B: Organophosphorus Pesticides (OP)						
Dichlorvos	62-7"-7 0.0, mg@4	3333	3333	3333	<0.0,	<0.0,

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Analytical Results

Sub3; atriD: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: TP1 0.2-0.3	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3	TP5 0.2-0.3
				Client sampling date / time: , 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
				EB0907967-002	EB0907967-003	EB0907967-005	EB0907967-007	EB0907967-009
EP068B: Organophosphorus Pesticides (OP) - Continued								
Demeton-S-methyl	9 9-86-8	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Monocrotophos	69233223)	0.2	mg@4	3333	3333	3333	<0.2	<0.2
Dimethoate	60-, 3	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Diazinon	""" 3) 3	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Chlorpyrifos-methyl	,, 98- " -0	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Parathion-methyl	298-00-0	0.2	mg@4	3333	3333	3333	<0.2	<0.2
Malathion	121-7, 3	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Fenthion	,, 3'8-9	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Chlorpyrifos	29213992	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Parathion	, 6-"932	0.2	mg@4	3333	3333	3333	<0.2	<0.2
Pirimphos-ethyl	2350, 3) 3	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Chlorfenvinphos	) 70-90-6	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Bromophos-ethyl	) 924-78-6	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Fenamiphos	22224-92-6	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Prothiofos	") 6)" 3)6-)	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Ethion	, 6"31232	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Carbophenothion	786- 9-6	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
Azinphos Methyl	86-, 0-0	0.0,	mg@4	3333	3333	3333	<0.0,	<0.0,
EP075(SIM)A: Phenolic Compounds								
Phenol	08-9, 32	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2-Chlorophenol	9, 3 7-8	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2-Methylphenol	9, 3)8-7	0.,	mg@4	3333	3333	3333	<0.,	<0.,
3- & 4-Methylphenol	" 9-77-"	.0	mg@4	3333	3333	3333	G .0	G .0
2-Nitrophenol	88-7, 3	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2.4-Dimethylphenol	0, -67-9	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2.4-Dichlorophenol	120-8"32	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2.6-Dichlorophenol	87-6, -0	0.,	mg@4	3333	3333	3333	<0.,	<0.,
4-Chloro-3-Methylphenol	, 9-, 0-7	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2.4.6-Trichlorophenol	88-06-2	0.,	mg@4	3333	3333	3333	<0.,	<0.,
2.4.5-Trichlorophenol	9, -9, 3)	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Pentachlorophenol	87-86-,	2.0	mg@4	3333	3333	3333	G2.0	G2.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	9 320-"	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Acenaphthylene	208-96-8	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Acenaphthene	9"382-9	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Fluorene	86-7"-7	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Phenanthrene	9, -0 39	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Anthracene	120-12-7	0.,	mg@4	3333	3333	3333	<0.,	<0.,

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Analytical Results

Sub3; atriD: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: TP1 0.2-0.3	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3	TP5 0.2-0.3
				Client sampling date / time: , 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
				EB0907967-002	EB0907967-003	EB0907967-005	EB0907967-007	EB0907967-009
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Fluoranthene	206-)) -0	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Pyrene	129-00-0	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Benz(a)anthracene	, 6-,, 3'	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Chrysene	218-0 -9	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Benzo(b)fluoranthene	20, -99-2	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Benzo(k)fluoranthene	207-08-9	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Benzo(a)pyrene	, 0-3239	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Indeno(1.2.3.cd)pyrene	9" 3' 9-,	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Dibenz(a.h)anthracene	," -70-"	0.,	mg@4	3333	3333	3333	<0.,	<0.,
Benzo(g.h.i)perylene	9 3243 2	0.,	mg@4	3333	3333	3333	<0.,	<0.,
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	3333	0	mg@4	3333	G 0	G 0	< 0	< 0
C10 - C14 Fraction	3333	, 0	mg@4	3333	G, 0	G, 0	<, 0	<, 0
C15 - C28 Fraction	3333	00	mg@4	3333	G 00	G 00	G 00	G 00
C29 - C36 Fraction	3333	00	mg@4	3333	G 00	G 00	G 00	G 00
EP080: BTEX								
Benzene	7 3" 32	0.2	mg@4	3333	<0.2	<0.2	<0.2	<0.2
Toluene	08-88-"	0.,	mg@4	3333	<0.,	<0.,	<0.,	<0.,
Ethylbenzene	00-) 3	0.,	mg@4	3333	<0.,	<0.,	<0.,	<0.,
meta- & para-Xylene	08-" 933 106-423'	0.,	mg@4	3333	<0.,	<0.,	<0.,	<0.,
ortho-Xylene	9, 3 7-6	0.,	mg@4	3333	<0.,	<0.,	<0.,	<0.,
EP066S: PCB Surrogate								
Decachlorobiphenyl	20, 3243'	0.	I	3333	3333	3333	**77.6**	**85.2**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	216,, -7" 32	0.	I	3333	3333	3333	**82.4**	**86.0**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-) 939	0.	I	3333	3333	3333	**75.7**	**83.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-"	0.	I	3333	3333	3333	**76.0**	**76.3**
2-Chlorophenol-D4	9" 9, -7" -6	0.	I	3333	3333	3333	**74.7**	**85.4**
2.4.6-Tribromophenol	8-79-6	0.	I	3333	3333	3333	**67.5**	**75.3**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.	I	3333	3333	3333	**72.8**	**80.8**
Anthracene-d10	7 9-06-8	0.	I	3333	3333	3333	**87.0**	**99.2**
4-Terphenyl-d14	7 93, -0	0.	I	3333	3333	3333	**79.4**	**90.5**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	7060-07-0	0.	I	3333	**94.4**	**93.6**	**91.6**	**94.9**

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Analytical Results

Sub3; atriD: SOIL			Client sample ID	TP1 0.2-0.3	TP2 0.2-0.3	TP3 0.2-0.3	TP4 0.2-0.3	TP5 0.2-0.3
			Client sampling date / time	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
Compound	CAS Number	LOR	Unit	EB0907967-002	EB0907967-003	EB0907967-005	EB0907967-007	EB0907967-009
EP080S: TPH(V)/BTEX Surrogates - Continued								
Toluene-D8	20" 7-26-,	0.		3333	90.2	86.8	86.9	88.6
4-Bromofluorobenzene	) 60-00-)	0.		3333	74.9	75.4	74.6	75.8

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Analytical Results

Sub3; atriD: SOIL			Client sample ID	TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3	TP10 0.2-0.3
			Client sampling date / time	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
Compound	CAS Number	LOR	Unit	EB0907967-011	EB0907967-013	EB0907967-014	EB0907967-017	EB0907967-019
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	3333	.0		15.2	33.5	15.4	6.8	6.1
EG005T: Total Metals by ICP-AES								
Arsenic	7)) 0-"932	,	mg@4	G	G	G	G	G
Cadmium	7)) 0-)" -9		mg@4	G	G	G	G	G
Chromium	7)) 0-)7-"	2	mg@4	8	4	3	2	3
Copper	7)) 0-, 0-8	,	mg@4	G	G	G	G	G
Lead	7)" 9-923	,	mg@4	G	6	G	G	6
Nickel	7)) 0-02-0	2	mg@4	G2	G2	G2	G2	G2
Zinc	7)) 0-66-6	,	mg@4	G	G	G	G	5
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7)" 9-97-6	0.	mg@4	<0.	<0.	<0.	<0.	<0.
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	3333	0. 0	mg@4	3333	<0. 0	3333	<0. 0	<0. 0
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	" 9-8) -6	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Hexachlorobenzene (HCB)	8-7) 3	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
beta-BHC	" 9-8, -7	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
gamma-BHC	, 8-89-9	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
delta-BHC	" 9-86-8	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Heptachlor	76-)) 39	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Aldrin	"09-00-2	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Heptachlor epoxide	0243 7-"	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
trans-Chlordane	, 0"-7) 32	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
alpha-Endosulfan	9, 9-98-8	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
cis-Chlordane	, 0"-7 -9	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Dieldrin	60-, 7-	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
4.4`-DDE	723, -9	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Endrin	72320-8	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
beta-Endosulfan	33213-6, -9	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
4.4`-DDD	723) 39	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Endrin aldehyde	7421-9" 3	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Endosulfan sulfate	0" -07-8	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
4.4`-DDT	, 0-29-"	0.2	mg@4	3333	<0.2	3333	<0.2	<0.2
Endrin ketone	,") 9)-70-,	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Methoxychlor	723" 3	0.2	mg@4	3333	<0.2	3333	<0.2	<0.2
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-7"-7	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,

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Analytical Results

Sub3; atriD: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3	TP10 0.2-0.3
				Client sampling date / time: , 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
				EB0907967-011	EB0907967-013	EB0907967-014	EB0907967-017	EB0907967-019
EP068B: Organophosphorus Pesticides (OP) - Continued								
Demeton-S-methyl	9 9-86-8	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Monocrotophos	69233223)	0.2	mg@4	3333	<0.2	3333	<0.2	<0.2
Dimethoate	60-, 3	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Diazinon	""" 3) 3	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Chlorpyrifos-methyl	,, 98- " -0	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Parathion-methyl	298-00-0	0.2	mg@4	3333	<0.2	3333	<0.2	<0.2
Malathion	121-7, 3	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Fenthion	,, 3' 8-9	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Chlorpyrifos	29213992	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Parathion	, 6-" 932	0.2	mg@4	3333	<0.2	3333	<0.2	<0.2
Pirimphos-ethyl	2350, 3) 3	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Chlorfenvinphos	) 70-90-6	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Bromophos-ethyl	) 924-78-6	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Fenamiphos	22224-92-6	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Prothiofos	") 6)" 3)6-)	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Ethion	, 6" 31232	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Carbophenothion	786- 9-6	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
Azinphos Methyl	86-, 0-0	0.0,	mg@4	3333	<0.0,	3333	<0.0,	<0.0,
EP075(SIM)A: Phenolic Compounds								
Phenol	08-9, 32	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2-Chlorophenol	9, 3 7-8	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2-Methylphenol	9, 3) 8-7	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
3- & 4-Methylphenol	" 9-77-"	.0	mg@4	3333	G .0	3333	G .0	G .0
2-Nitrophenol	88-7, 3	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2.4-Dimethylphenol	0, -67-9	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2.4-Dichlorophenol	120-8" 32	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2.6-Dichlorophenol	87-6, -0	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
4-Chloro-3-Methylphenol	, 9-, 0-7	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2.4.6-Trichlorophenol	88-06-2	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
2.4.5-Trichlorophenol	9, -9, 3)	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Pentachlorophenol	87-86-,	2.0	mg@4	3333	G2.0	3333	G2.0	G2.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	9 320-"	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Acenaphthylene	208-96-8	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Acenaphthene	9" 332-9	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Fluorene	86-7" -7	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Phenanthrene	9, -0 39	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Anthracene	120-12-7	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,

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Analytical Results

Sub3; atriD: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3	TP10 0.2-0.3
				Client sampling date / time: , 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
				EB0907967-011	EB0907967-013	EB0907967-014	EB0907967-017	EB0907967-019
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Fluoranthene	206-)) -0	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Pyrene	129-00-0	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Benz(a)anthracene	, 6-,, 3'	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Chrysene	218-0 -9	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Benzo(b)fluoranthene	20, -99-2	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Benzo(k)fluoranthene	207-08-9	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Benzo(a)pyrene	, 0-3239	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Indeno(1.2.3.cd)pyrene	9" 3' 9-,	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Dibenz(a.h)anthracene	," -70-"	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Benzo(g.h.i)perylene	9 3243 2	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	3333	0	mg@4	3333	G 0	3333	G 0	< 0
C10 - C14 Fraction	3333	, 0	mg@4	3333	G 0	3333	G 0	<, 0
C15 - C28 Fraction	3333	00	mg@4	3333	G 00	3333	G 00	G 00
C29 - C36 Fraction	3333	00	mg@4	3333	G 00	3333	G 00	G 00
EP080: BTEX								
Benzene	7 3" 32	0.2	mg@4	3333	<0.2	3333	<0.2	<0.2
Toluene	08-88-"	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
Ethylbenzene	00-) 3	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
meta- & para-Xylene	08-" 933 106-423'	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
ortho-Xylene	9, 3 7-6	0.,	mg@4	3333	<0.,	3333	<0.,	<0.,
EP066S: PCB Surrogate								
Decachlorobiphenyl	20, 3243'	0.	I	3333	**93.4**	3333	**94.7**	**79.4**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	216,, -7" 32	0.	I	3333	**92.6**	3333	**90.2**	**79.1**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-) 939	0.	I	3333	**89.6**	3333	**97.0**	**81.5**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-"	0.	I	3333	**75.2**	3333	**75.1**	**78.2**
2-Chlorophenol-D4	9" 9, -7" -6	0.	I	3333	**82.6**	3333	**81.9**	**86.2**
2.4.6-Tribromophenol	8-79-6	0.	I	3333	**72.1**	3333	**75.9**	**74.3**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.	I	3333	**82.1**	3333	**79.3**	**85.0**
Anthracene-d10	7 9-06-8	0.	I	3333	**107**	3333	**104**	**113**
4-Terphenyl-d14	7 93, -0	0.	I	3333	**88.5**	3333	**92.1**	**99.1**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	7060-07-0	0.	I	3333	**86.0**	3333	**99.6**	**96.9**

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Analytical Results

Sub3; atriD: SOIL	Client sample ID	TP6 0.2-0.3	TP7 0.2-0.3	TP8 0.0-0.1	TP9 0.2-0.3	TP10 0.2-0.3
	Client sampling date / time	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00
Compound	CAS Number / LOR / Unit	EB0907967-011	EB0907967-013	EB0907967-014	EB0907967-017	EB0907967-019
EP080S: TPH(V)/BTEX Surrogates - Continued						
Toluene-D8	20" 7-26-, / 0. /	3333	**84.5**	3333	**91.8**	**88.4**
4-Bromofluorobenzene	) 60-00-) / 0. /	3333	**77.0**	3333	**79.8**	**77.8**

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Analytical Results

Sub3; atriD: SOIL			Client sample ID	Dup 02	Dup 03	3333	3333	3333
			Client sampling date / time	, 3; ¸ ?32009 11:00	, 3; ¸ ?32009 11:00	3333	3333	3333
Compound	CAS Number	LOR	Unit	EB0907967-020	EB0907967-021	----	----	----
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	3333	.0	I	**11.4**	**9.6**	3333	3333	3333
EG005T: Total Metals by ICP-AES								
Arsenic	7)) 0-"932	,	mg@4	G	G	3333	3333	3333
Cadmium	7)) 0-)" -9		mg@4	G	G	3333	3333	3333
Chromium	7)) 0-)7-"	2	mg@4	**6**	**3**	3333	3333	3333
Copper	7)) 0-, 0-8	,	mg@4	G	G	3333	3333	3333
Lead	7)" 9-923	,	mg@4	G	G	3333	3333	3333
Nickel	7)) 0-02-0	2	mg@4	G2	G2	3333	3333	3333
Zinc	7)) 0-66-6	,	mg@4	G	G	3333	3333	3333
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7)" 9-97-6	0.	mg@4	<0.	<0.	3333	3333	3333
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	3333	0	mg@4	G 0	G 0	3333	3333	3333
C10 - C14 Fraction	3333	, 0	mg@4	G, 0	G, 0	3333	3333	3333
C15 - C28 Fraction	3333	00	mg@4	G 00	G 00	3333	3333	3333
C29 - C36 Fraction	3333	00	mg@4	G 00	G 00	3333	3333	3333
EP080: BTEX								
Benzene	7 3)" 32	0.2	mg@4	<0.2	<0.2	3333	3333	3333
Toluene	08-88-"	0.,	mg@4	<0.,	<0.,	3333	3333	3333
Ethylbenzene	00-) 3)	0.,	mg@4	<0.,	<0.,	3333	3333	3333
meta- & para-Xylene	08-"933 106-423'	0.,	mg@4	<0.,	<0.,	3333	3333	3333
ortho-Xylene	9, 3)7-6	0.,	mg@4	<0.,	<0.,	3333	3333	3333
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	7060-07-0	0.	I	**94.6**	**92.9**	3333	3333	3333
Toluene-D8	20" 7-26-,	0.	I	**109**	**95.7**	3333	3333	3333
4-Bromofluorobenzene	)60-00-)	0.	I	**89.0**	**81.4**	3333	3333	3333

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Surrogate Control Limits

Sub3; atriD: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	20, 3243'	0	6)
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	216,, -7" 32	10	" 6
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-) 939	0	0
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-"	2)	"
2-Chlorophenol-D4	9" 9, -7" -6	23	")
2.4.6-Tribromophenol	8-79-6	9	,
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	" 0	,
Anthracene-d10	7 9-06-8	27	""
4-Terphenyl-d14	7 93, -0	9	" 7
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	7060-07-0	80	121
Toluene-D8	20" 7-26-,	9	7
4-Bromofluorobenzene	) 60-00-)	7)	121

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0907967**	2. D1	: * of 12
C/1nt	: **SINCLAIR KNIGHT MERZ**	L. bor. tory	: Environm1nt./ Divi0ion Br 0b. n1
Cont. ct	:	Cont. ct	: ¸ im ˙ /mi0t1r
Addr100	: ˜2 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Addr100	: 32 Shand Street Stafford QLD Australia 4053
E-mail	%˝(˜˜˜!)!('*+˜!*˜	E-mail	%Services.Brisbane@alsenviro.com
Telephone	%&&&&	Telephone	%+61-7-3243 7222
2˜+!#'#"¸	%&&&&	2˜+!#'#"¸	%+61-7-3243 7218
4˝˜5¸+˙	%QE09537	QC Level	%NEP; 1999 Schedule B<3=and ALS QCS3 re> #˝¸!¸˘˙
Site	%Cronulla Park		
C-O-C number	%&&&&	Date Samples Received	%19-; A?-2009
Sampler	%O KANAS	Issue Date	%27-; A?-2009
Order number	%&&&&		
		No. of samples received	%21
Quote number	%EN@03@9	No. of samples analysed	%12

This report supersedes any previous ˝¸.˜˝˙ <= Aith this reference. Results apply to the !˜!."¸ <= as submitted. All pages of this report have been checked and approved °˜˝ release.

This Quality Control Report contains the folloAing information:

- Laboratory Duplicate <DUP=Report; Relative Percentage Difference <RPD=and Acceptance Limits
- ; ethod Blank <; B=and Laboratory Control Spike <LCS=Report; Recovery and Acceptance Limits
- ; atrix Spike <; S=Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

This document is issued in accordance Aith NATA accreditation re> #˝¸!¸˘˙!*

Accredited for compliance Aith ISO@EC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated -¸"˜ A. Electronic signing has -¸¸˘ carried out in compliance Aith procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Kim ; +7˘-¸	Senior Inorganic Chemist	Inorganics
; attheA GoodA#˘	Senior Organic Chemist	Organics
Sarah AshAorth	Organic Chemist	Organics

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized .˝ocedures such as those published by the USEPA, APHA, AS and NEP; . In house developed procedures are employed in the absence of documented standards or by client re> ¸!˙*

Where moisture determination has been performed, results are reported on a dry Aeight basis.

Where a reported less than <A=result is higher than the LOR, this may be due to primary sample extract@gestate dilution and@r insuffient 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 Aeight employed=or matrix interference.

Key : Anonymous = Refers to samples Ahich are not specifically part of this Aork 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

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aboratory Duplicate (DUP) Report

The >uality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide #˘ormation regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation <RPD= of Laboratory Duplicates are specified in ALS ; ethod QWI-EN@8 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result betAeen 10 and 20 times LOR:- 0K - 50K ; Result L 20 times LOR:- 0K - 20K *

Sub-; ˘˙˙#< **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA055: Moisture Content (QC Lot: 984798)									
EB0907838-044	Anonymous	EA055-103: ; oisture Content <dried @ 103M7 =	&&&&	1.0	K	26.8	27.5	2.7	0K - 20K
EB0907838-059	Anonymous	EA055-103: ; oisture Content <dried @ 103M7 =	&&&&	1.0	K	1.3	1.1	14.0	No Limit
EA055: Moisture Content (QC Lot: 984799)									
EB0907967-013	TP7 0.2-0.3	EA055-103: ; oisture Content <dried @ 103M7 =	&&&&	1.0	K	33.5	34.2	2.0	0K - 20K
EG005T: Total Metals by ICP-AES (QC Lot: 984846)									
EB0907724-015	Anonymous	EG005T: Cadmium	7440-43-9	1	' : @	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	' : @	40	41	2.8	0K - 20K
		EG005T: Nickel	7440-02-0	2	' : @	52	39	# 27.8	0K - 50K
		EG005T: Arsenic	7440-38-2	$	' : @	$	0	0.0	No Limit
		EG005T: Copper	7440-50-8	$	' : @	34	34	0.0	No Limit
		EG005T: Lead	7439-92-1	$	' : @	A$	A$	0.0	No Limit
		EG005T: Zinc	7440-66-6	$	' : @	60	50	18.4	0K - 50K
EB0907953-002	Anonymous	EG005T: Cadmium	7440-43-9	1	' : @	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	' : @	15	12	18.4	No Limit
		EG005T: Nickel	7440-02-0	2	' : @	11	6	21.5	No Limit
		EG005T: Arsenic	7440-38-2	$	' : @	1	A$	39.8	No Limit
		EG005T: Copper	7440-50-8	$	' : @	26	24	$*6	No Limit
		EG005T: Lead	7439-92-1	$	' : @	34	44	23.9	No Limit
		EG005T: Zinc	7440-66-6	$	' : @	74	06	0*1	0K - 50K
EG005T: Total Metals by ICP-AES (QC Lot: 984849)									
EB0907967-017	TP9 0.2-0.3	EG005T: Cadmium	7440-43-9	1	' : @	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	' : @	2	3	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	' : @	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	$	' : @	A$	A$	0.0	No Limit
		EG005T: Copper	7440-50-8	$	' : @	A$	A$	0.0	No Limit
		EG005T: Lead	7439-92-1	$	' : @	A$	A$	0.0	No Limit
		EG005T: Zinc	7440-66-6	$	' : @	A$	A$	0.0	No Limit
EB0907980-009	Anonymous	EG005T: Cadmium	7440-43-9	1	' : @	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	' : @	14	14	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	' : @	1	1	0.0	No Limit
		EG005T: Arsenic	7440-38-2	$	' : @	3	6	16.2	No Limit
		EG005T: Copper	7440-50-8	$	' : @	063	719	2.9	0K - 20K
		EG005T: Lead	7439-92-1	$	' : @	3	6	14.7	No Limit
		EG005T: Zinc	7440-66-6	$	' : @	34	32	4.8	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984847)									

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Sub-; ˘´˝#< **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984847) - continued									
EB0907724-015	Anonymous	EG035T: ; ¸˝+ ˝9	7439-97-6	0.1	': @	<0.1	<0.1	0.0	No Limit
EB0907953-002	Anonymous	EG035T: ; ¸˝+ ˝9	7439-97-6	0.1	': @	<0.1	<0.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 984850)									
EB0907967-017	TP9 0.2-0.3	EG035T: ; ¸˝+ ˝9	7439-97-6	0.1	': @	<0.1	<0.1	0.0	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 986346)									
EB0907967-007	TP4 0.2-0.3	EP066: Total Polychlorinated biphenyls	&&&&	0.10	': @	<0.10	<0.10	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 986345)									
EB0907967-007	TP4 0.2-0.3	EP068: alpha-BHC	319-84-6	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene <HCB=	118-74-1	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	$3&36&6	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	6$6&63&3	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	': @	<0.2	<0.2	0.0	No Limit
		EP068: ; ethoxychlor	72-43-5	0.2	': @	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 986345)									
EB0907967-007	TP4 0.2-0.3	EP068: Dichlorvos	62-73-7	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: ; alathion	121-75-5	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	': @	<0.05	<0.05	0.0	No Limit

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Sub-; ˘˙˙#< **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 986345) - continued									
EB0907967-007	TP4 0.2-0.3	EP068: Bromophos-ethyl	4824-78-6	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos ; ethyl	86-50-0	0.05	': @	<0.05	<0.05	0.0	No Limit
		EP068: ; onocrotophos	6923-22-4	0.2	': @	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	': @	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	': @	<0.2	<0.2	0.0	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 986337)									
EB0907967-009	TP5 0.2-0.3	EP075<SI;= : Phenol	108-95-2	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2-Chlorophenol	6$&$1&3	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2-; ethylphenol	95-48-7	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2-Nitrophenol	33&1$&$	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2.4-Dimethylphenol	105-67-9	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2.4-Dichlorophenol	120-83-2	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2.6-Dichlorophenol	87-65-0	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 4-Chloro-3-; ethylphenol	59-50-7	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2.4.6-Trichlorophenol	88-06-2	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 2.4.5-Trichlorophenol	95-95-4	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : 3- & 4-; ethylphenol	1319-77-3	1.0	': @	<1.0	<1.0	0.0	No Limit
		EP075<SI;= : Pentachlorophenol	31&30&$	2.0	': @	<2.0	<2.0	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 986337)									
EB0907967-009	TP5 0.2-0.3	EP075<SI;= : Naphthalene	91-20-3	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Acenaphthylene	208-96-8	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Acenaphthene	83-32-9	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Fluorene	86-73-7	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Phenanthrene	85-01-8	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Anthracene	120-12-7	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Fluoranthene	206-44-0	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Pyrene	129-00-0	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Benz<ˇ =anthracene	56-55-3	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Chrysene	218-01-9	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Benzo< =fluoranthene	205-99-2	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Benzo<(=fluoranthene	207-08-9	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Benzo<ˇ =9˝¸˘¸	50-32-8	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Indeno<1.2.3.cd=9˝¸˘¸	193-39-5	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Dibenz<a.h=anthracene	53-70-3	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP075<SI;= : Benzo<g.h.i=¸˝9"¸˘¸	191-24-2	0.5	': @	<0.5	<0.5	0.0	No Limit

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Sub-; ˘´˝#< **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 984803)									
EB0907838-062	Anonymous	EP080: C6 - C9 Fraction	&&&&	10	': @	$1	63	6*6	No Limit
EB0907953-003	Anonymous	EP080: C6 - C9 Fraction	&&&&	10	': @	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 986336)									
EB0907934-001	Anonymous	EP071: C15 - C28 Fraction	&&&&	100	': @	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	&&&&	100	': @	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	&&&&	50	': @	<50	<50	0.0	No Limit
EB0907967-009	TP5 0.2-0.3	EP071: C15 - C28 Fraction	&&&&	100	': @	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	&&&&	100	': @	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	&&&&	50	': @	<50	<50	0.0	No Limit
EP080: BTEX (QC Lot: 984803)									
EB0907838-062	Anonymous	EP080: Benzene	71-43-2	0.2	': @	1.0	1.0	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	': @	12.1	13.0	0*6	0K - 20K
		EP080: Ethylbenzene	100-41-4	0.5	': @	1.9	2.1	1*6	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	': @	3*3	10.0	12.5	0K - 20K
		EP080: ortho-Xylene	95-47-6	0.5	': @	3.0	3.4	11.7	No Limit
EB0907953-003	Anonymous	EP080: Benzene	71-43-2	0.2	': @	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	': @	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	': @	<0.5	<0.5	0.0	No Limit

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

The >uality control term ; ethod @Laboratory Blank refers to an analyte free matrix to Ahich 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 >uality control term Laboratory Control Sample ⊲LCS= refers to a certified reference material, or a (˜˜ An interference free matrix spiked Aith 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-; ˘˙˜#⊲ **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 984846)								
EG005T: Arsenic	7440-38-2	$	' : @	A$	13.8 mg@	95.1	13	124
EG005T: Cadmium	7440-43-9	1	' : @	<1	2.82 mg@	91.9	11	117
EG005T: Chromium	7440-47-3	2	' : @	<2	61.6 mg@	99.2	83	119
EG005T: Copper	7440-50-8	$	' : @	A$	54.7 mg@	100	82	122
EG005T: Lead	7439-92-1	$	' : @	A$	55.5 mg@	90.4	83	117
EG005T: Nickel	7440-02-0	2	' : @	<2	55.1 mg@	94.7	83	121
EG005T: Zinc	7440-66-6	$	' : @	A$	105 mg@	94.0	82	120
EG005T: Total Metals by ICP-AES (QCLot: 984849)								
EG005T: Arsenic	7440-38-2	$	' : @	A$	13.8 mg@	94.4	13	124
EG005T: Cadmium	7440-43-9	1	' : @	<1	2.82 mg@	93.2	11	117
EG005T: Chromium	7440-47-3	2	' : @	<2	61.6 mg@	63*1	83	119
EG005T: Copper	7440-50-8	$	' : @	A$	54.7 mg@	61*6	82	122
EG005T: Lead	7439-92-1	$	' : @	A$	55.5 mg@	91.6	83	117
EG005T: Nickel	7440-02-0	2	' : @	<2	55.1 mg@	93.9	83	121
EG005T: Zinc	7440-66-6	$	' : @	A$	105 mg@	97.2	82	120
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984847)								
EG035T: ; ¸˝+ ˝9	7439-97-6	0.1	': @	<0.1	&&&&	&&&&	&&&&	&&&&
		0.10	': @	&&&&	1.34 mg@	98.3	13	129
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984850)								
EG035T: ; ¸˝+ ˝9	7439-97-6	0.1	': @	<0.1	&&&&	&&&&	&&&&	&&&&
		0.10	': @	&&&&	1.34 mg@	63*$	13	129
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 986346)								
EP066: Total Polychlorinated biphenyls	&&&&	0.1	': @	&&&&	0.5 mg@	81.7	53.8	105
		0.10	': @	<0.10	&&&&	&&&&	&&&&	&&&&
EP068A: Organochlorine Pesticides (OC) (QCLot: 986345)								
EP068: alpha-BHC	319-84-6	0.05	': @	<0.05	0.25 mg@	72.6	58.4	116
EP068: Hexachlorobenzene ⊲HCB=	118-74-1	0.05	': @	<0.05	0.25 mg@	72.5	$1*1	107
EP068: beta-BHC	319-85-7	0.05	': @	<0.05	0.25 mg@	73.6	59.3	116
EP068: gamma-BHC	$3&36&6	0.05	': @	<0.05	0.25 mg@	71.4	59.1	118
EP068: delta-BHC	319-86-8	0.05	': @	<0.05	0.25 mg@	75.2	$0	117
EP068: Heptachlor	76-44-8	0.05	': @	<0.05	0.25 mg@	86.4	57.3	119
EP068: Aldrin	309-00-2	0.05	': @	<0.05	0.25 mg@	75.0	58.2	113
EP068: Heptachlor epoxide	1024-57-3	0.05	': @	<0.05	0.25 mg@	71.4	60.4	113
EP068: trans-Chlordane	5103-74-2	0.05	': @	<0.05	0.25 mg@	74.7	60.3	114

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Sub-; ˘´˝#< **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP068A: Organochlorine Pesticides (OC) (QCLot: 986345) - continued								
EP068: alpha-Endosulfan	6$6&63&3	0.05	': @	<0.05	0.25 mg@	77.4	$0	120
EP068: cis-Chlordane	5103-71-9	0.05	': @	<0.05	0.25 mg@	74.5	60.8	113
EP068: Dieldrin	60-57-1	0.05	': @	<0.05	0.25 mg@	74.9	$3*3	115
EP068: 4.4`-DDE	72-55-9	0.05	': @	<0.05	0.25 mg@	77.1	61.2	116
EP068: Endrin	72-20-8	0.05	': @	<0.05	0.25 mg@	06*6	47	133
EP068: beta-Endosulfan	33213-65-9	0.05	': @	<0.05	0.25 mg@	75.3	$3*$	117
EP068: 4.4`-DDD	72-54-8	0.05	': @	<0.05	0.25 mg@	74.9	58.4	118
EP068: Endrin aldehyde	7421-93-4	0.05	': @	<0.05	0.25 mg@	77.1	46.3	115
EP068: Endosulfan sulfate	1031-07-8	0.05	': @	<0.05	0.25 mg@	78.0	53.6	120
EP068: 4.4`-DDT	50-29-3	0.05	': @	&&&&	0.25 mg@	1$*0	52.6	129
		0.2	': @	<0.2	&&&&	&&&&	&&&&	&&&&
EP068: Endrin ketone	53494-70-5	0.05	': @	<0.05	0.25 mg@	73.0	51.6	124
EP068: ; ethoxychlor	72-43-5	0.05	': @	&&&&	0.25 mg@	71.4	52.4	129
		0.2	': @	<0.2	&&&&	&&&&	&&&&	&&&&
EP068B: Organophosphorus Pesticides (OP) (QCLot: 986345)								
EP068: Dichlorvos	62-73-7	0.05	': @	<0.05	0.25 mg@	71.3	43.9	113
EP068: Demeton-S-methyl	919-86-8	0.05	': @	<0.05	0.25 mg@	# 27.5	31.8	112
EP068: ; onocrotophos	6923-22-4	0.05	': @	&&&&	0.25 mg@	13*6	33	130
		0.2	': @	<0.2	&&&&	&&&&	&&&&	&&&&
EP068: Dimethoate	60-51-5	0.05	': @	<0.05	0.25 mg@	10*0	46.4	129
EP068: Diazinon	333-41-5	0.05	': @	<0.05	0.25 mg@	74.5	57.1	114
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	': @	<0.05	0.25 mg@	75.4	$3*6	113
EP068: Parathion-methyl	298-00-0	0.05	': @	&&&&	0.25 mg@	75.4	54.8	112
		0.2	': @	<0.2	&&&&	&&&&	&&&&	&&&&
EP068: ; alathion	121-75-5	0.05	': @	<0.05	0.25 mg@	77.2	$1*3	119
EP068: Fenthion	55-38-9	0.05	': @	<0.05	0.25 mg@	69.1	03	109
EP068: Chlorpyrifos	2921-88-2	0.05	': @	<0.05	0.25 mg@	74.9	62.2	115
EP068: Parathion	56-38-2	0.05	': @	&&&&	0.25 mg@	1$*0	54.7	113
		0.2	': @	<0.2	&&&&	&&&&	&&&&	&&&&
EP068: Pirimphos-ethyl	23505-41-1	0.05	': @	<0.05	0.25 mg@	76.0	51.9	121
EP068: Chlorfenvinphos	470-90-6	0.05	': @	<0.05	0.25 mg@	94.1	$3	118
EP068: Bromophos-ethyl	4824-78-6	0.05	': @	<0.05	0.25 mg@	81.3	$6*3	115
EP068: Fenamiphos	22224-92-6	0.05	': @	<0.05	0.25 mg@	68.1	32.5	101
EP068: Prothiofos	34643-46-4	0.05	': @	<0.05	0.25 mg@	74.7	$6*0	116
EP068: Ethion	563-12-2	0.05	': @	<0.05	0.25 mg@	77.4	58.4	118
EP068: Carbophenothion	786-19-6	0.05	': @	<0.05	0.25 mg@	1$*3	$0*6	117
EP068: Azinphos ; ethyl	86-50-0	0.05	': @	<0.05	0.25 mg@	73.8	42	130
EP075(SIM)A: Phenolic Compounds (QCLot: 986337)								
EP075<SI;= : Phenol	108-95-2	0.5	': @	<0.5	5.0 mg@	33*0	61	119

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Sub-; ˘´˝#< **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP075(SIM)A: Phenolic Compounds (QCLot: 986337) - continued								
EP075<SI;= : 2-Chlorophenol	6$&$1&3	0.5	': @	<0.5	5.0 mg@	81.9	63	117
EP075<SI;= : 2-; ethylphenol	95-48-7	0.5	': @	<0.5	5.0 mg@	36*6	62	119
EP075<SI;= : 3- & 4-; ethylphenol	1319-77-3	1.0	': @	<1.0	10 mg@	90.1	$1	120
EP075<SI;= : 2-Nitrophenol	33&15&$	0.5	': @	<0.5	5.0 mg@	82.0	49	125
EP075<SI;= : 2.4-Dimethylphenol	105-67-9	0.5	': @	<0.5	5.0 mg@	86.1	$3	116
EP075<SI;= : 2.4-Dichlorophenol	120-83-2	0.5	': @	<0.5	5.0 mg@	105	$3	116
EP075<SI;= : 2.6-Dichlorophenol	87-65-0	0.5	': @	<0.5	5.0 mg@	72.7	$6	119
EP075<SI;= : 4-Chloro-3-; ethylphenol	59-50-7	0.5	': @	<0.5	5.0 mg@	84.2	61	121
EP075<SI;= : 2.4.6-Trichlorophenol	88-06-2	0.5	': @	<0.5	5.0 mg@	81.0	$$	116
EP075<SI;= : 2.4.5-Trichlorophenol	95-95-4	0.5	': @	<0.5	5.0 mg@	73.3	53	116
EP075<SI;= : Pentachlorophenol	31&30&$	2.0	': @	<2.0	10 mg@	100	41	137
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 986337)								
EP075<SI;= : Naphthalene	91-20-3	0.5	': @	<0.5	5.0 mg@	84.6	00	114
EP075<SI;= : Acenaphthylene	208-96-8	0.5	': @	<0.5	5.0 mg@	80.2	63	113
EP075<SI;= : Acenaphthene	83-32-9	0.5	': @	<0.5	5.0 mg@	85.2	0$	114
EP075<SI;= : Fluorene	86-73-7	0.5	': @	<0.5	5.0 mg@	81.8	0$	111
EP075<SI;= : Phenanthrene	85-01-8	0.5	': @	<0.5	5.0 mg@	110	60	112
EP075<SI;= : Anthracene	120-12-7	0.5	': @	<0.5	5.0 mg@	# 114	0$	110
EP075<SI;= : Fluoranthene	206-44-0	0.5	': @	<0.5	5.0 mg@	109	64	111
EP075<SI;= : Pyrene	129-00-0	0.5	': @	<0.5	5.0 mg@	111	64	111
EP075<SI;= : Benz< =anthracene	56-55-3	0.5	': @	<0.5	5.0 mg@	# 123	61	115
EP075<SI;= : Chrysene	218-01-9	0.5	': @	<0.5	5.0 mg@	100	$1	114
EP075<SI;= : Benzo< =fluoranthene	205-99-2	0.5	': @	<0.5	5.0 mg@	107	46	124
EP075<SI;= : Benzo<{ =fluoranthene	207-08-9	0.5	': @	<0.5	5.0 mg@	72.9	48	124
EP075<SI;= : Benzo< =9˝¸˘¸	50-32-8	0.5	': @	<0.5	5.0 mg@	84.6	$$	116
EP075<SI;= : Indeno<1.2.3.cd=9˝¸˘¸	193-39-5	0.5	': @	<0.5	5.0 mg@	01*1	52	130
EP075<SI;= : Dibenz<a.h=anthracene	53-70-3	0.5	': @	<0.5	5.0 mg@	82.4	54	129
EP075<SI;= : Benzo<g.h.i=¸˝9"¸˘¸	191-24-2	0.5	': @	<0.5	5.0 mg@	74.9	52	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984803)								
EP080: C6 - C9 Fraction	&&&&	10	': @	<10	16 mg@	3$*6	71	123
EP080/071: Total Petroleum Hydrocarbons (QCLot: 986336)								
EP071: C10 - C14 Fraction	&&&&	50	': @	<50	259 mg@	61*3	0$	112
EP071: C15 - C28 Fraction	&&&&	100	': @	<100	524 mg@	90.1	76.2	122
EP071: C29 - C36 Fraction	&&&&	100	': @	<100	&&&&	&&&&	&&&&	&&&&
EP080: BTEX (QCLot: 984803)								
EP080: Benzene	71-43-2	0.2	': @	<0.2	1 mg@	101	13	121
EP080: Toluene	108-88-3	0.5	': @	<0.5	1 mg@	63*6	13	121
EP080: Ethylbenzene	100-41-4	0.5	': @	<0.5	1 mg@	92.3	72	119

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QC Documents

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Sub-; ˘´˝#< **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP080: BTEX (QCLot: 984803) - continued								
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	': @	<0.5	2 mg@	33*0	00	121
EP080: ortho-Xylene	95-47-6	0.5	': @	<0.5	1 mg@	89.4	70	118

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Matrix Spike (MS) Report

The >uality control term ; atrix Spike <; S= refers to an intralaboratory split sample spiked Aith a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on ˘˘˘"9˙¸ recoveries. Static Recovery Limits as per laboratory Data Quality Objectives <DQOs=. Ideal recovery ranges stated may be Aaived in the event of sample matrix interference.

Sub-; ˘˙˙#< **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 984846)							
EB0907724-016	Anonymous	EG005T: Arsenic	7440-38-2	50 mg@	3$*$	70	130
		EG005T: Cadmium	7440-43-9	25 mg@	61*$	70	130
		EG005T: Chromium	7440-47-3	50 mg@	# 24.6	70	130
		EG005T: Copper	7440-50-8	50 mg@	109	70	130
		EG005T: Lead	7439-92-1	50 mg@	108	70	130
		EG005T: Nickel	7440-02-0	50 mg@	115	70	130
		EG005T: Zinc	7440-66-6	50 mg@	116	70	130
EG005T: Total Metals by ICP-AES (QCLot: 984849)							
EB0907967-019	TP10 0.2-0.3	EG005T: Arsenic	7440-38-2	50 mg@	100	70	130
		EG005T: Cadmium	7440-43-9	25 mg@	102	70	130
		EG005T: Chromium	7440-47-3	50 mg@	103	70	130
		EG005T: Copper	7440-50-8	50 mg@	66*$	70	130
		EG005T: Lead	7439-92-1	50 mg@	100	70	130
		EG005T: Nickel	7440-02-0	50 mg@	102	70	130
		EG005T: Zinc	7440-66-6	50 mg@	102	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984847)							
EB0907724-016	Anonymous	EG035T: ; ¸˝+ ˝9	7439-97-6	5.0 mg@	95.2	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 984850)							
EB0907967-019	TP10 0.2-0.3	EG035T: ; ¸˝+ ˝9	7439-97-6	5.0 mg@	91.3	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 986346)							
EB0907967-009	TP5 0.2-0.3	EP066: Total Polychlorinated biphenyls	&&&&	0.5 mg@	83.5	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 986345)							
EB0907967-009	TP5 0.2-0.3	EP068: gamma-BHC	$3&36&6	0.25 mg@	13*$	70	130
		EP068: Heptachlor	76-44-8	0.25 mg@	87.0	70	130
		EP068: Aldrin	309-00-2	0.25 mg@	74.2	70	130
		EP068: Dieldrin	60-57-1	0.25 mg@	16*3	70	130
		EP068: Endrin	72-20-8	1.0 mg@	13*3	70	130
		EP068: 4.4`-DDT	50-29-3	1.0 mg@	# 49.7	70	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 986345)							
EB0907967-009	TP5 0.2-0.3	EP068: Diazinon	333-41-5	0.25 mg@	31*0	70	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.25 mg@	84.8	70	130
		EP068: Pirimphos-ethyl	23505-41-1	0.25 mg@	80.8	70	130
		EP068: Bromophos-ethyl	4824-78-6	0.25 mg@	30*$	70	130
		EP068: Prothiofos	34643-46-4	0.25 mg@	81.6	70	130

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Sub-; ˘˙˙#< **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Spike Recovery (%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EP075(SIM)A: Phenolic Compounds (QCLot: 986337)							
EB0907967-009	TP5 0.2-0.3	EP075<Sl;= : Phenol	108-95-2	2.5 mg@	6$*6	70	130
		EP075<Sl;= : 2-Chlorophenol	6$&$1&3	2.5 mg@	89.4	70	130
		EP075<Sl;= : 2-Nitrophenol	33&1$&$	2.5 mg@	81.1	70	130
		EP075<Sl;= : 4-Chloro-3-; ethylphenol	59-50-7	2.5 mg@	87.2	70	130
		EP075<Sl;= : Pentachlorophenol	31&30&$	2.5 mg@	118	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 986337)							
EB0907967-009	TP5 0.2-0.3	EP075<Sl;= : Acenaphthene	83-32-9	2.5 mg@	31*$	70	130
		EP075<Sl;= : Pyrene	129-00-0	2.5 mg@	121	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 984803)							
EB0907938-004	Anonymous	EP080: C6 - C9 Fraction	&&&&	28 mg@	74.3	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 986336)							
EB0907934-002	Anonymous	EP071: C10 - C14 Fraction	&&&&	259 mg@	92.8	70	130
		EP071: C15 - C28 Fraction	&&&&	524 mg@	94.0	70	130
EP080: BTEX (QCLot: 984803)							
EB0907938-004	Anonymous	EP080: Benzene	71-43-2	2 mg@	66*3	70	130
		EP080: Toluene	108-88-3	2 mg@	103	70	130

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INTERPRETIVE QUALITY CONTROL REPORT

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Work Order	: **EB0907967**	: a: e	%1 ˜° 7
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: ONA KANAS	Contact	: Tim Kilmister
Address	: 32 CORDELIA STREET SO, TH BRISBANE QLD, A, STRALIA 4101	Address	: 32 S1and Street Stafford QLD Australia 4053
E3mail	: o4anas5 s4m6com6au	E3mail	: Services6Brisbane5 alsenviro6com
Tele71one	: 3333	Tele71one	: 8/* 3733243 7222
Facsimile	: 3333	Facsimile	: 8/* 3733243 7218
Project	: QE09537	QC Level	: NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Site	: Cronulla Par4		
C3# 3C number	: 3333	Date Sam7les Received	: *4 3ˆ8 3&++4
Sam7ler	: O KANAS	Issue Date	: 273ˆ8 3&++4
Order number	: 3333		
		No6of sam7les received	: &*
Quote number	: EN/003/09	No6of sam7les analysed	: *&

˜ 1is re7ort su7ersedes any 7revious re7ort(s) wit1 t1is reference6Results a77ly to t1e sam7le(s) as submitted6All 7ages of t1is re7ort 1ave been c1ec4ed and a77roved for release6

˜ 1is Inter7retive Quality Control Re7ort contains t1e following information:

- Analysis Holding Time Com7liance
- Quality Control Parameter Frequency Com7liance
- Brief Met1od Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 S1and Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 FaD6/* 3733243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

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Analysis Holding Time Compliance

˜ 1e following re7ort summarises eDraction / 7re7aration and analysis times and com7ares wit1 recommended 1olding times6 Dates re7orted re7resent first date of eDraction or analysis and 7recludes subsequent dilutions and reruns6 Information is also 7rovided re t1e sam7le container 57reservative) from : 1 "1 t1e analysis aliquot was ta4en6 Ela7sed 7eriod to analysis re7resents number of days from sam7ling : 1ere no eDraction / digestion is involved or 7eriod from eDraction / digestion : 1ere t1is is 7resent6 For com7osite sam7les, sam7ling date is assumed to be t1at of t1e oldest sam7le contributing to t1e com7osite6 Sam7le date for laboratory 7roduced leac1ates is assumed as t1e com7letion date of t1e leac1ing 7rocess6 Outliers for 1olding time are based on , SEPA SE 1)/ , ˆ2°ˆ , AS and NEPM 5*4446 ˆ listing of breac1es is 7rovided in t1e Summary of Outliers6

Holding times for leac1ate met1ods (eDcluding elutriates) vary according to t1e analytes being determined on t1e resulting solution6 For non 3volatile analytes, t1e 1olding time com7liance assessment com7ares t1e leac1 date wit1 t1e s1ortest analyte 1olding time for t1e equivalent soil met1od6 T1ese soil 1olding times are: Organics (14 days); Mercury (28 days) & ot1er metals (180 days6 ˆ recorded breac1 t1erefore does not guarantee a breac1 for all non3volatile 7arameters6

MatriD: **SOIL** Evaluation: × H Holding time breac1 ; ✓ H E it1in 1olding time6

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content								
Soil Glass Jar - Unpreserved								
TP1 06&3+6%(	TP2 06&3+6%(	**15-MAY-2009**	**----**	3333	3333	**21-MAY-2009**	&&3ˆ8 3&++4	✓
TP3 06&3+6%(	TP4 06&3+6%(							
TP5 06&3+6%(	TP6 06&3+6%(							
TP7 06&3+6%(	TP8 06+3+6'(							
TP9 06&3+6%(	TP10 06&3+6%(							
Du7 02,	Du7 03							
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved								
TP1 06&3+6%(	TP2 06&3+6%(	**15-MAY-2009**	**21-MAY-2009**	** 3'#> 3&++4	✓	**21-MAY-2009**	** 3'#> 3&++4	✓
TP3 06&3+6%(	TP4 06&3+6%(							
TP5 06&3+6%(	TP6 06&3+6%(							
TP7 06&3+6%(	TP8 06+3+6'(							
TP9 06&3+6%(	TP10 06&3+6%(							
Du7 02,	Du7 03							
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved								
TP1 06&3+6%(	TP2 06&3+6%(	**15-MAY-2009**	**21-MAY-2009**	** 3'#> 3&++4	✓	**21-MAY-2009**	*&3?, ˇ 3&++4	✓
TP3 06&3+6%(	TP4 06&3+6%(							
TP5 06&3+6%(	TP6 06&3+6%(							
TP7 06&3+6%(	TP8 06+3+6'(							
TP9 06&3+6%(	TP10 06&3+6%(							
Du7 02,	Du7 03							
EP066: Polychlorinated Biphenyls (PCB)								
Soil Glass Jar - Unpreserved								
TP4 06&3+6%(	TP5 06&3+6%(	**15-MAY-2009**	**22-MAY-2009**	&43ˆ8 3&++4	✓	**26-MAY-2009**	+*3?, L3&++4	✓
TP7 06&3+6%(	TP9 06&3+6%(							
TP10 06&3+6%								

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MatriD: **SOIL**

Evaluation: × HHolding time breac1 ; ✓ HE it1in 1olding time6

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved							
TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%	**15-MAY-2009**	**22-MAY-2009**	&43^8 3&++4	✓	**26-MAY-2009**	+*3?, L3&++4	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved							
TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%	**15-MAY-2009**	**22-MAY-2009**	&43^8 3&++4	✓	**26-MAY-2009**	+*3?, L3&++4	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved							
TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%	**15-MAY-2009**	**22-MAY-2009**	&43^8 3&++4	✓	**25-MAY-2009**	+*3?, L3&++4	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved							
TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%	**15-MAY-2009**	**22-MAY-2009**	&43^8 3&++4	✓	**25-MAY-2009**	+*3?, L3&++4	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved							
TP2 06&3+6%(TP3 06&3+6%(TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%(Du7 02, Du7 03	**15-MAY-2009**	**21-MAY-2009**	&43^8 3&++4	✓	**21-MAY-2009**	&43^8 3&++4	✓
Soil Glass Jar - Unpreserved							
TP2 06&3+6%(TP3 06&3+6%(TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%(Du7 02, Du7 03	**15-MAY-2009**	**22-MAY-2009**	&43^8 3&++4	✓	**25-MAY-2009**	+*3?, L3&++4	✓
EP080: BTEX							
Soil Glass Jar - Unpreserved							
TP2 06&3+6%(TP3 06&3+6%(TP4 06&3+6%(TP5 06&3+6%(TP7 06&3+6%(TP9 06&3+6%(TP10 06&3+6%(Du7 02, Du7 03	**15-MAY-2009**	**21-MAY-2009**	&43^8 3&++4	✓	**21-MAY-2009**	&43^8 3&++4	✓

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Quality Control Parameter Frequency Compliance

˜ 1e following re7ort summarises t1e frequency of laboratory QC sam7les analysed wit1in t1e analytical lot(s) in w1 "1 t1e submitted sam7le(s) was(w1ere) 7rocessed6Actual rate s1ould be greater t1an or equal to t1e eD7ected rate6A listing of breac1es is 7rovided in t1e Summary of Outliers6

MatriD: **SOIL**

Evaluation: × H Qualit Control fre7uenc not wit1in s7ecification < ✓ H Qualit Control fre7uenc wit1in s7ecification6

Quality Control Sam7le Ty7e		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Du7licates (D, 26							
Moisture Content	EA055 3+%	%	8	**10.3**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
2°92 1enols (SIM)	EP075(SIM)	*	.	**20.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	*	.	**20.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Polyc1lorinated Bi71enyls (PCB)	EP066	*	.	**20.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	%	%	**10.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	)	%)	**11.8**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071	&	*/	**12.5**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	&	&+	**10.0**	**10.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Laboratory Control Sam7les (LCS)							
2°92 1enols (SIM)	EP075(SIM)	*	.	**20.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	*	.	**20.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Polyc1lorinated Bi71enyls (PCB)	EP066	*	.	**20.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	&	%+	**6.7**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	&	%)	**5.9**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071	*	* /	**6.3**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	*	&+	**5.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Met1od Blan4s (MB)							
2°92 1enols (SIM)	EP075(SIM)	*	.	**20.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	*	.	**20.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Polyc1lorinated Bi71enyls (PCB)	EP066	*	.	**20.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	&	%+	**6.7**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	&	%)	**5.9**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071	*	* /	**6.3**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	*	&+	**5.0**	**5.0**	✓	NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
MatriDS7 4es (MS)							
2°92 1enols (SIM)	EP075(SIM)	*	.	**20.0**	**5.0**	✓	ALS QCS3 requirement
Pesticides by GCMS	EP068	*	.	**20.0**	**5.0**	✓	ALS QCS3 requirement
Polyc1lorinated Bi71enyls (PCB)	EP066	*	.	**20.0**	**5.0**	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	&	%+	**6.7**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP3AES	EG005T	&	%)	**5.9**	**5.0**	✓	ALS QCS3 requirement
TPH 3Semivolatile Fraction	EP071	*	* /	**6.3**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	*	&+	**5.0**	**5.0**	✓	ALS QCS3 requirement

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Brief Method Summaries

˜ 1e analytical 7rocedures used by t1e Environmental Division 1ave been develo7ed from establis1ed internationally recognized 7rocedures suc1 as t1ose 7ublis1ed by t1e , S EPA, APHA, AS and NEPM6In 1ouse develo7ed 7rocedures are em7loyed in t1e absence of documented standards or by client request6T1e following re7ort 7rovides brief descri7tions of t1e analytical 7rocedures em7loyed for results re7orted in t1e Certificate of Analysis6Sources from w1 "1 ALS met1ods 1ave been develo7ed are 7rovided wit1in t1e Met1od Descri7tions6

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA0553'+%	SOIL	A gravimetric 7rocedure based on weig1t loss over a 12 1our drying 7eriod at 1033105 degrees C6 T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 102)
Total Metals by ICP3AES	EG005T	SOIL	(APHA 21st ed6 3120; , SEPA SE 846 36010) (ICPAES) Metals are determined following an a77ro7riate acid digestion of t1e soil6 T1e ICPAES tec1nique ionises sam7les in a 7lasma, emitting a c1aracteristic s7ectrum based on metals 7resent6 Intensities at selected wavelengt1s are com7ared against t1ose of matriDmatc1ed standards6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed6 3112 Hg 3B (Flow3njection (SnCl2)(Cold Va7our generation) AAS) FIM3AAS is an automated flameless atomic absor7tion tec1nique6Mercury in solids are determined following an a77ro7riate acid digestion6Ionic mercury is reduced online to atomic mercury va7our by SnCl2 w1 "1 is t1en 7urged into a 1eated quartz cell6 Quantification is by com7aring absorbance against a calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3)
Polyc1lorinated Bi71enyls (PCB)	EP066	SOIL	5 SEPA SE 846 38270B) ED1racts are analysed by Ca7illary GC/MS and quantification is by com7arison against an establis1ed 5 7oint calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od .+)6
Pesticides by GCMS	EP068	SOIL	5 SEPA SE 846 38270B) ED1racts are analysed by Ca7illary GC/MS and quantification is by com7arison against an establis1ed 5 7oint calibration curve6T1is tec1nique is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od .+)(.+.6
TPH 3Semivolatile Fraction	EP071	SOIL	5 SEPA SE 846 38015A) Sam7le eD1racts are analysed by Ca7illary GC/FID and quantified against al4ane standards over t1e range C10 3C366T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 5066'6
2^°92 1enols (SIM)	EP0755IM6	SOIL	5 SEPA SE 846 38270B) ED1racts are analysed by Ca7illary GC/MS in Selective Ion Mode (SIM) and quantification is by com7arison against an establis1ed 5 7oint calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	5 SEPA SE 846 38260B) ED1racts are analysed by Purge and Tra7, Ca7illary GC/MS6Quantification is by com7arison against an establis1ed 5 7oint calibration curve6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 501)

Preparation Methods	Method	Matrix	Method Descriptions
Hot Bloc4 Digest for metals in soils ediments and sludges	EN69	SOIL	, SEPA 2006 2 Mod6Hot Bloc4 Acid Digestion 160g of sam7le is 1eated wit1 Nitric and Hydroc1loric acids, t1en cooled6 PeroDde is added and sam7les 1eated and cooled again before being filtered and bul4ed to volume for analysis6 Digest is a77ro7riate for determination of selected metals in sludge, sediments, and soils6T1is met1od is com7liant wit1 NEPM (1999) Sc1edule B(3) (Met1od 202)
Met1anolic ED1raction of Soils for Purge and Tra7	#˙¸*/	SOIL	5 SEPA SE 846 35030A) 5g of solid is s1a4en wit1 surrogate and 10mL met1anol 7rior to analysis by Purge and Tra7 3 GC/MS6
Tumbler ED1raction of Solids (O7tion A 3 Concentrating)	ORG17A	SOIL	In31ouse, Mec1anical agitation (tumbler)620g of sam7le, Na2SO4 and surrogate are eD1racted wit1 150mL 1:1 DCM/Acetone by end over end tumble6 T1e solvent is decanted, de1ydrated and concentrated (by KD) to t1e desired volume for analysis6

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Preparation Methods	Method	Matrix	Method Descriptions
Tumbler E1raction of Solids (O7tion B 3 Non3concentrating)	ORG17B	SOIL	In31ouse, Mec1anical agitation (tumbler)610g of sam7le, Na2SO4 and surrogate are e1racted wit1 20mL 1:1 DCM/Acetone by end over end tumble6 T1e solvent is transferred directly to a GC vial for analysis6

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DL Documents

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Summary of Outliers

Outliers : Quality Control Samples

~ 1e following re7ort 1 ; 1lig1ts outliers flagged in t1e Quality Control (QC) Re7ort6 Surrogate recovery limits are static and based on , SEPA SE 846 or ALS3 E l/EN/38 (in t1e absence of s7ecific , SEPA limits)6 T1is re7ort dis7lays QC Outliers (breac1es) only6

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

MatriD: **SOIL**

Com7ound Grou7 Name	Laboratory Sam7le ID	Client Sam7le ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP3AES	EB09077243+*.	Anonymous	**Nickel**	74403+&3+	276 %	+3&+B	**RPD exceeds LOR based limits**
Laboratory Control Spike (LCS) Recoveries							
EP068B: Organo71os71orus Pesticides (OP)	**&44.% 3++&	3333	**Demeton-S-methyl**	4*4 31/ 31	276 %	%*613**&B	**Recovery less than lower control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	11299473+*/	3333	**Anthracene**	*&+3*&37	114 %	/. 3**+B	**Recovery greater than upper control limit**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	11299473+*/	3333	**Benz(a)anthracene**	./ 3. 3%	123 %	/* 3**.B	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
EG005T: Total Metals by ICP3AES	EB09077243+*/	Anonymous	**Chromium**	74403473%	&)66 %	703*%+B	**Recovery less than lower data quality objective**
EP068A: Organoc1lorine Pesticides (OC)	EB09079673+*+4	TP5 06&3+6%	**4.4`-DDT**	.+ 3&43%	)4 67 %	703*%+B	**Recovery less than lower data quality objective**

- **For all matrices, no Method Blank value outliers occur.**

Regular Sample Surrogates

- **For all regular sample matrices, no surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

~ 1is re7ort dis7lays Holding Time breac1es only6Only t1e res7ective EDtraction / Pre7aration and/or Analysis com7onent is/are dis7layed6

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

~ 1e following re7ort 1 ; 1lig1ts breac1es in t1e Frequency of Quality Control Sam7les6

- **No Quality Control Sample Frequency Outliers exist.**

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SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0907967**

8!"˜^	$ **SINCLAIR KNIGHT MERZ**	La,°˙ a^°˙@	$ Environmental Division Brisba˜˝
8°˜^ a*^	$ ONA KANAS	8°˜^ a*^	$ Tim Kilmister
	$ 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101		$ 32 Shand Street S^afford QLD AC^˙ a!"a 4053
E-ma"!	$ °' a˘ a ('&)*°&) au	E-ma"!	$ Services.Brisba˜˝(a! ˝˜+"˙°)*°&
TeleDhone	$ %%%%	TeleDhone	$. E1-F-3243 F222
Fa* "&"!˝	$ %%%%	Fa* "&"!˝	$. E1-F-3243 F21H
I ˙° J*^	$ QE0353F	Pa4˝	$ 1 °˛ 3
Order nC&,˝˙	$ %%%%		
C-O-C nC&,˝˙	$ %%%%	Cote nC&,˝˙	$ ES2003SINKNI0322 CENI003H03=
S"^˝	$ 8˙°˘ C!a Pa˙'		
Sa& D!˝˙	$ O KANAS	QC Level	$ NEPM 1333 SchedCle BC3= and ALS 8 S3 reJC"˙˝&˝˜^

Dates

Date Sa& Dles Received	$ 13% K-2003	IssCe Da^˝	$ 20-I K-2003 1E:22
Client ReJCested DCe Da^˝	$ 2E% K-2003	SchedCed ReD°˙^"˜ 4 Da^˝	$ **27-MAY-2009**

Delivery Details

I ode of Delivery	$ Client DroD off	TemD˝ a^C˝	$ 4.4IC - Ice D˙˝ ˝˜^
No. of coolersH° 5˝	$ 1 I EDIUI	No. of sa& Dles received	$ 21
S˝˜* Crity S˝a!	$ Inta*^)	No. of sa& Dles a˘ a!@ ˝˜	$ 12

General Comments

- This reDort contains the follo: "˜4 informa^"°˜$
  - % Sa& Dle Conta"˜˝˙ G=Hl ˙˝ ˝˙+ ation Non-ComD!a˜*˝
  - % Su&& ary of Sa& D!˝ G=and ReJCested Ana!@ "
  - % ReJCested Delivera,!˝
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- I !˝ase direct any tCrn a˙° Cnd Htechnical JCeries to the la,°˙ atory contact desi4˘ ated a,°+˝)
- I !˝ase direct any JCeries related to sa& Dle condition HnC&,˝˙"˜ 4 Hbrea' a4es to I a44ie Kahi.
- ˘ a!@^"al : ork for this : ork order : ill be condCcted at ALS Brisba˜˝)
- Sa& Dle DisD° al - AJC˝° Cs G14 da@=, Solid G30 da@=from date of comDletion of : ork order.

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Sample Container(s)/Preservation Non-Compliances

ll comparisons are made a4ainst D˙˜^·˝ a^&˜^ HD˙˝ ˜·+ ation AS, Al HA, USEI A sta˜˘ a·˘)

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described ,˝!° : may be part of a la,°· a^°·@ Drocess ˘˜**˝ ary for the ˝5˝* Ction of client ·˝JC˝ ^˜˜ ^a ' . Pa*' a4es &ay *°^ ain a˘˜"^"°˘ al a˘alyses, Cch a the ˘˜^˜·&"˘ ation of &°" ^ Cre content and D˙˝pa·a^"°˘ ^asks, that are inclCded in the pa*' a4˝)

K hen ˘a^˝G= a˘˘ Hor ^"&˝G= are sho: n ,˙acketed, these have been a Cmed by the !a,°· atory for D˙°*˝ "˜ 4 DCD° ˝ . If the a& D!"˜4 time is ˘" Dlayed as 0:00 the "˜¸°·& ation was not Drovided by client.

I a^·'5: **SOIL**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	CDn Hold=SOIL No a˙alysis reJC˝^˝	SOIL - S-02 HI ˜^als Cncl. DI4˝ ^"°˘ =	SOIL - S-05 TI HIBTE6HHI ˜^a!	SOIL - S-13 TI HIBTE6HH hH78 H7 I HI CBHHmeta!
EB030F3EF-001	15-I K-2003 11:00	TI 1 0.0-0.1	✓			
EB030F3EF-002	15-I K-2003 11:00	TI 1 0.2-0.3		✓		
EB030F3EF-003	15-I K-2003 11:00	TI 2 0.2-0.3			✓	
EB030F3EF-004	15-I K-2003 11:00	TI 3 0.0-0.1	✓			
EB030F3EF-005	15-I K-2003 11:00	TI 3 0.2-0.3			✓	
EB030F3EF-00E	15-I K-2003 11:00	TI 4 0.0-0.1	✓			
EB030F3EF-00F	15-I K-2003 11:00	TI 4 0.2-0.3				✓
EB030F3EF-00H	15-I K-2003 11:00	TI 5 0.0-0.1	✓			
EB030F3EF-003	15-I K-2003 11:00	TI 5 0.2-0.3				✓
EB030F3EF-010	15-I K-2003 11:00	TIE 0.0-0.1	✓			
EB030F3EF-011	15-I K-2003 11:00	TIE 0.2-0.3		✓		
EB030F3EF-012	15-I K-2003 11:00	TIF 0.0-0.1	✓			
EB030F3EF-013	15-I K-2003 11:00	TIF 0.2-0.3				✓
EB030F3EF-014	15-I K-2003 11:00	TIH 0.0-0.1		✓		
EB030F3EF-015	15-I K-2003 11:00	TIH 0.2-0.3	✓			
EB030F3EF-01E	15-I K-2003 11:00	TI 3 0.0-0.1	✓			
EB030F3EF-01F	15-I K-2003 11:00	TI 3 0.2-0.3				✓
EB030F3EF-01H	15-I K-2003 11:00	TI 10 0.0-0.1	✓			
EB030F3EF-013	15-I K-2003 11:00	TI 10 0.2-0.3				✓
EB030F3EF-020	15-I K-2003 11:00	DCD02			✓	
EB030F3EF-021	15-I K-2003 11:00	DCD03			✓	

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Requested Deliverables

MR JEREMY WICKS

%MAU Certificate of Analysis - NATA GCOA =	Ema"!	J: "*' ('&)*°&)	au
%MAU InterDretive QC ReDort - DEGAULT GAnon QCI ReD=GQCI =	Ema"!	J: "*' ('&)*°&)	au
%MAU QC ReDort - DEGAULT GAnon QC ReD=- NATA GQC =	Ema"!	J: "*' ('&)*°&)	au
%A4 - AU Sa& DIe ReceiDt Notification - Environmental GSRN =	Ema"!	J: "*' ('&)*°&)	au
%A4 - AU Ta5 Invoice GIN> =	Ema"!	J: "*' ('&)*°&)	au
%Default - Chain of COstody GCOC =	Ema"!	J: "*' ('&)*°&)	au
%EDI G°˙& at - ENI RL GENI RL =	Ema"!	J: "*' ('&)*°&)	au
%EDI G°˙& at - ESDAT GESDAT =	Ema"!	J: "*' ('&)*°&)	au
%EDI G°˙& at - 6Tab G6TAB =	Ema"!	J: "*' ('&)*°&)	au

ONA KANAS

%MAU Certificate of Analysis - NATA GCOA =	Ema"!	°' a˘ a ('&)*°&)	au
%MAU InterDretive QC ReDort - DEGAULT GAnon QCI ReD=GQCI =	Ema"!	°' a˘ a ('&)*°&)	au
%MAU QC ReDort - DEGAULT GAnon QC ReD=- NATA GQC =	Ema"!	°' a˘ a ('&)*°&)	au
%A4 - AU Sa& DIe ReceiDt Notification - Environmental GSRN =	Ema"!	°' a˘ a ('&)*°&)	au
%Default - Chain of COstody GCOC =	Ema"!	°' a˘ a ('&)*°&)	au
%EDI G°˙& at - ENI RL GENI RL =	Ema"!	°' a˘ a ('&)*°&)	au
%EDI G°˙& at - ESDAT GESDAT =	Ema"!	°' a˘ a ('&)*°&)	au
%EDI G°˙& at - 6Tab G6TAB =	Ema"!	°' a˘ a ('&)*°&)	au

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

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Work Order	: **EB0908932**	Page	: of 17
˙ l˝e˛˘	: **SINCLAIR KNIGHT MERZ**	Labo˘a˘o˝ˆ	: Enviro˛˜ e˛˘al ˝°˝ s˝o˛ Brisba˛ e
˙ o˛˘a!˘	: MS ONA KANAS	˙ o˛˘a!˘	: ˘ ˝˜ K'1˜˝ s˘e˘
Add˘ess	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 400˙	Add˘ess	: 32 Sha˛ d S˘˘ee˘ S˘affo˘d QLD Aus˘˘al˝a 4053
E'˜ a'1	: oka˛ as@sk˜ *! o˜ .au	E'˜ a'1	: Se˘°˝! es.Brisba˛ e@alse˛°˝˜ o.! o˜
Telepho˛ e	: +61 07 3244 7100	Telepho˛ e	: +61-7-3243 7222
Fa! s˝˝˝ le	: +61 07 3244 730˝	Fa! s˝˝˝ le	: +61-7-3243 7218
˘oje!˘	: ""	! ˙ Le°el	: NEPM 1999 S! hedule B(3) a˛ d ALS Q˙ S3 ˘equ˜˝e˜ e˛˘
O˘de˘ ˛ %mbe˘	: ""		
˙ -O-˙ ˛ %mbe˘	: ""	a˘e Sa˜ ples Re! e˝°ed	: 03-JUN-2009
Sa˜ ple˘	: ""	Issue a˘e	: 12-JUN-2009
S˝e	: ˙˘ o˛ ulla Pa˘(		
		No. of sa˜ ples ˘e! e˝°ed	: ˙
Quo˘e ˛ %mbe˘	: EN/003/09	No. of sa˜ ples a˛ al ˆ sed	: ˙

˘$ ˝s ˘epo˘˘ supe˘sedes a˛ˆ p˘e°˝ous ˘epo˘˘(s) 3˝˜h ˘$˝s ˘efe˘e˛! e. Resul˘s appl ˆ ˘o ˜he sa˜ ple(s) as submitted. All pages of ˘$˝s ˘epo˘˘ ha°e bee˛ !he! ked a˛ d app˘o°ed fo˘ ˘elease.

˘$ ˝s ˙ e˘˘f˝!a˘e of A˛ al ˆ s˝s ! o˛˘a˝˛ s ˜he follow˝˛ g ˝˛ fo˜˜ a˘˝o˛ :

- Ge˛ e˘al ˙ o˜˜ e˛˘s
- A˛ al ˆ˘˝! al Resul˘s
- Su˘˘oga˘e ˙ o˛˘˝ ol Limits

NATA A!!˘ ed˜˝ed Labo˘a˘o˝ˆ 825

˘$ ˝s do! % e˛˘ ˝s ˝ssued ˝˛ a!! o˘da˛! e w˝˜h NATA a!!˘ ed˜˝a˘o˛ ˘equ˜˝e˜ e˛˘s.

A!!˘ ed˜˝ed fo˘ ! o˜ pl˝a˛! e w˝˜h ISO/IEC 17025.

Signatories

˘$ ˝s do! % e˛˘ has bee˛ ele!˘˘ o˛˝! all ˆ s˝g˛ ed by ˜he au˜ho˜˝zed s˝g˛ a˘o˜˝es ˝˛˘˝! a˘ed below. Ele!˘˘ o˛˝! s˝g˛˝˛ g has bee˛ ! a˘˝˝ed ou˘˝˛ ! o˜ pl˝a˛! e w˝˜h p˘o! edu˘es spe!˝˜f˝ed ˝˛ 21 ˙ FR Pa˘˘ 11.

Signatories	*Position*	*Accreditation Category*
Ma˘˜hew Goodw˝˛	Se˛˝o˘ O˘ga˛˝! ˙ he˜˝ s˘	O˘ga˛˝! s
S˘ephe˛ H˝slop	Se˛˝o˘ l˛ o˘ga˛˝! ˙ he˜˝ s˘	°˛ o˘ga˛˝! s
ˆ ˝˛gbin Lin	°˛ s˘˘% e˛˘ ˙ he˜˝ s˘	O˘ga˛˝! s

13-05-04

General Comments

The a˛ al^˘˝! al +˘o! edu˘es used by ˘he Enviro˛˜ e˛˘al ˝°˝ s˝o˛ ha°e bee˛ de°eloped f˘o˜ es˘abl˝shed ˝˛˘e˘˛ a˘˝o˛ all^ ˘e! og˛˝zed +˘o! edu˘es su! h as ˘hose +%bl˝shed by ˘he USEPA, APHA" AS a˛d NEPM. °˛ house de°eloped p˘o! edu˘es a˘e e˜ plo^ed ˝˛ ˘he abse˛! e of do! %˜ e˛˘ed s˘a˛ da˘ds o˘ by ! l˝e˛˘ ˘eques˘*

Whe˘e ˜ o˝s˘%e de˘e˘˝˝˛ a˘˝o˛ has bee˛ pe˘fo˘˜ ed, ˘esul˘s a˘e ˘epo˘˘ed o˛ a d˘^ we˝gh˘ bas˝s.

Whe˘e a ˘epo˘˘ed less ˘ha˛ (<) ˘esul˘ ˝s h˝ghe˘ ˘ha˛ ˘he LOR, ˘$˝s ˜ a^ be due ˘o p˘˝˝ a˘^ sa˜ ple ex˘˘a!˘2˘˝ges˘a˘e d˝lu˘˝o˛ a˛ d/o˘ ˝˛suff˝e˛˘ sa˜ ple fo˘ a˛ al^ s˝s.

Whe˘e ˘he LOR of a ˘epo˘˘ed ˘esul˘ d˝ffe˘s f˘o˜ s˘a˛ da˘d LOR, ˘$˝s ˜ a^ be due ˘o h˝gh˜ o˝s˘%e ! o˛˘e˛˘, ˝˛suff˝!˝e˛˘ sa˜ ple (˘edu! ed we˝gh˘ e˜ plo^ed) o˘˜ a˘˝˝x ˝˛˘e˝fe˘e˛! e.

Whe˛ da˘e(s) a˛ d/o˘ ˘˝˝ e(s) a˘e show˛ bra! ke˘ed, ˘hese ha°e bee˛ assu˜ ed by ˘he labo˘a˘o˘^ fo˘ p˘o! ess˝˛g pu˘poses. If ˘he sa˜ pl˝˛g ˘˝˝ e ˝s d˝spla^ed as 0:00 ˘he ˝˛fo˘˝ a˘˝o˛ was ˛o˘ p˘o°˝ded by ! l˝e˛˘*

Ke^ : ˙ AS Numbe˘ = ˙ AS ˘eg˝s˘˘^ ˛%mbe˘ f˘o˜ da˘abase ˜ a˝˛˘a˝˛ed by ˙ he˘˝˝! al Abs˘˝a!˘s Se˘°˝! es. The ˙ he˘˝˝! al Abs˘˝a!˘s Se˘°˝! e ˝s a d˝°˝s˝o˛ of ˘he A˘ e˘˝˝!a˛ ˙ he˘˝˝! al So!˝e˘^*
LOR = Limit of ˘epo˘˝˝˛g
^ = Th˝s ˘esul˘ ˝s ! o˘ +%ed f˘o˜ ˝˛˘˝°˝dual a˛ al^˘e de˘e!˘˝o˛ s a˘ o˘ abo°e ˘he le°el of ˘epo˘˘˝˛g

- **EP070- for all samples EB0908932, fractionation process was not complete- fractional surrogate recovery could not be accurately determined.**
- **PAH/Phenols: Sample MW05 required dilution due to the presence of high level contaminants.**

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Analytical Results

Sub-Ma˜˝˜5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-001	EB0908932-002	EB0908932-003	EB0908932-004	EB0908932-005
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0*00	˜ g/L	**0.002**	**0.001**	80*00	**0.005**	**0.005**
Cadmium	7440-43-9	0*000	˜ g/L	**0.0003**	**0.0006**	**0.0001**	**0.0001**	**0.0003**
Chromium	7440-47-3	0*00	˜ g/L	**0.018**	**0.004**	80*00	8 0*00	**0.006**
Copper	7440'&0-8	0*00	˜ g/L	**0.028**	**0.017**	80*00	8 0*00	**0.001**
Lead	7439' 92-1	0*00	˜ g/L	**0.064**	**0.043**	80*00	8 0*00	**0.002**
Nickel	7440' 02-0	0*00	˜ g/L	**0.038**	**0.098**	**0.004**	**0.003**	**0.122**
Zinc	7440'˝˝˜	0*00&	˜ g/L	**0.154**	**0.349**	**0.035**	**0.009**	**0.043**
EG035F: Dissolved Mercury by FIMS								
Mercury	7439' 97-6	0*000	˜ g/L	80*000	80*000	8 0*000	8 0*000	8 0*000
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0*0	˜ g/L	**0.03**	**0.02**	80*0	**37.9**	**87.2**
EP070: Total Petroleum Hydrocarbons - Speciation								
Aliphatic C10-C14	""	&0	Jg/L	""	""	""	8&0	8&0
Aliphatic C15-C28	""	00	Jg/L	""	""	""	8 00	**400**
Aliphatic C29-C36	""	&0	Jg/L	""	""	""	8&0	**150**
Aromatic C10-C14	""	&0	Jg/L	""	""	""	**70**	**180**
Aromatic C15-C28	""	00	Jg/L	""	""	""	8 00	8 00
Aromatic C29-C36	""	&0	Jg/L	""	""	""	8&0	8&0
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	&	Jg/L	""	""	8&	8&	8&
Toluene	08-88-3	&	Jg/L	""	""	8&	8&	**10**
Ethylbenzene	00'' '˜	&	Jg/L	""	""	8&	8&	8&
meta- & para-Xylene	08-38-3 106-42-3	&	Jg/L	""	""	8&	8&	**9**
Styrene	00-42-5	&	Jg/L	""	""	8&	8&	8&
ortho-Xylene	95-47-6	&	Jg/L	""	""	8&	8&	8&
Isopropylbenzene	98-82-8	&	Jg/L	""	""	8&	**5**	8&
n-Propylbenzene	03-65-1	&	Jg/L	""	""	8&	**8**	8&
1.3.5-Trimethylbenzene	08-67-8	&	Jg/L	""	""	8&	8&	8&
sec-Butylbenzene	135-98-8	&	Jg/L	""	""	8&	8&	8&
1.2.4-Trimethylbenzene	95-63-6	&	Jg/L	""	""	8&	8&	**14**
tert-Butylbenzene	98-0˝˝	&	Jg/L	""	""	8&	8&	8&
p-Isopropyltoluene	99-87-6	&	Jg/L	""	""	8&	8&	**18**
n-Butylbenzene	04-51-8	&	Jg/L	""	""	8&	8&	8&
EP074B: Oxygenated Compounds								
Vinyl Acetate	08-0&''	&0	Jg/L	""	""	8&0	8&0	8&0
2-Butanone (MEK)	78-93-3	&0	Jg/L	""	""	8&0	8&0	8&0
4-Methyl-2-pentanone (MIBK)	08-10'	&0	Jg/L	""	""	8&0	8&0	8&0

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Analytical Results

Sub-Ma˜˜˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-001	EB0908932-002	EB0908932-003	EB0908932-004	EB0908932-005
EP074B: Oxygenated Compounds - Continued								
2-Hexanone (MBK)	&91-78-6	&0	Jg/L	""	""	8&0	8&0	8&0
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	&	Jg/L	""	""	8&	8&	8&
EP074D: Fumigants								
2.2-Dichloropropane	&94-20-7	&	Jg/L	""	""	8&	8&	8&
1.2-Dichloropropane	78-87-5	&	Jg/L	""	""	8&	8&	8&
cis-1.3-Dichloropropylene	00˝ ' 0 '&	&	Jg/L	""	""	8&	8&	8&
trans-1.3-Dichloropropylene	00˝ ' 02-6	&	Jg/L	""	""	8&	8&	8&
1.2-Dibromoethane (EDB)	0˝ 93-4	&	Jg/L	""	""	8&	8&	8&
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	&0	Jg/L	""	""	8&0	**60**	8&0
Chloromethane	74-87-3	&0	Jg/L	""	""	8&0	8&0	8&0
Vinyl chloride	75-0 '˙	&0	Jg/L	""	""	8&0	8&0	8&0
Bromomethane	74-83-9	&0	Jg/L	""	""	8&0	8&0	8&0
Chloroethane	75-00-3	&0	Jg/L	""	""	8&0	8&0	8&0
Trichlorofluoromethane	75-69'˙	&0	Jg/L	""	""	8&0	8&0	8&0
1.1-Dichloroethene	75-35-4	&	Jg/L	""	""	8&	8&	8&
Iodomethane	74-88-4	&	Jg/L	""	""	8&	8&	8&
trans-1.2-Dichloroethene	&˝˝ 0'&	&	Jg/L	""	""	8&	8&	8&
1.1-Dichloroethane	75-34-3	&	Jg/L	""	""	8&	8&	8&
cis-1.2-Dichloroethene	&˝& 9-2	&	Jg/L	""	""	8&	8&	8&
1.1.1-Trichloroethane	71-55-6	&	Jg/L	""	""	8&	8&	8&
1.1-Dichloropropylene	563-58-6	&	Jg/L	""	""	8&	8&	8&
Carbon Tetrachloride	56-23-5	&	Jg/L	""	""	8&	8&	8&
1.2-Dichloroethane	07-06-2	&	Jg/L	""	""	8&	8&	8&
Trichloroethene	79'0 '˝	&	Jg/L	""	""	8&	8&	8&
Dibromomethane	74-95-3	&	Jg/L	""	""	8&	8&	8&
1.1.2-Trichloroethane	79'00'&	&	Jg/L	""	""	8&	8&	8&
1.3-Dichloropropane	142-28-9	&	Jg/L	""	""	8&	8&	8&
Tetrachloroethene	127-18-4	&	Jg/L	""	""	8&	8&	8&
1.1.1.2-Tetrachloroethane	630-20'˝	&	Jg/L	""	""	8&	8&	8&
trans-1.4-Dichloro-2-butene	0-57-6	&	Jg/L	""	""	8&	8&	8&
cis-1.4-Dichloro-2-butene	1476-11-5	&	Jg/L	""	""	8&	8&	8&
1.1.2.2-Tetrachloroethane	79-34-5	&	Jg/L	""	""	8&	8&	8&
1.2.3-Trichloropropane	96-18-4	&	Jg/L	""	""	8&	8&	8&
Pentachloroethane	76-01-7	&	Jg/L	""	""	8&	8&	8&
1.2-Dibromo-3-chloropropane	96-12-8	&	Jg/L	""	""	8&	8&	8&
Hexachlorobutadiene	87-68-3	&	Jg/L	""	""	8&	8&	8&

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Sub-Ma˘˝5: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-001	EB0908932-002	EB0908932-003	EB0908932-004	EB0908932-005
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	08-90-7	&	Jg/L	""	""	8&	**6**	**14**
Bromobenzene	08-86-1	&	Jg/L	""	""	8&	8&	8&
2-Chlorotoluene	9&'' 9-8	&	Jg/L	""	""	8&	8&	8&
4-Chlorotoluene	06-43-4	&	Jg/L	""	""	8&	8&	8&
1.3-Dichlorobenzene	541-73-1	&	Jg/L	""	""	8&	8&	8&
1.4-Dichlorobenzene	06-46-7	&	Jg/L	""	""	8&	8&	**47**
1.2-Dichlorobenzene	9&'&0'	&	Jg/L	""	""	8&	8&	**8**
1.2.4-Trichlorobenzene	120-82-1	&	Jg/L	""	""	8&	8&	8&
1.2.3-Trichlorobenzene	87-61-6	&	Jg/L	""	""	8&	8&	8&
EP074G: Trihalomethanes								
Chloroform	67-66-3	&	Jg/L	""	""	8&	8&	8&
Bromodichloromethane	75-27-4	&	Jg/L	""	""	8&	8&	8&
Dibromochloromethane	124-48-1	&	Jg/L	""	""	8&	8&	8&
Bromoform	75-25-2	&	Jg/L	""	""	8&	8&	8&
EP074H: Naphthalene								
Naphthalene	91-20-3	7	Jg/L	""	""	<7	**17**	**20**
EP075(SIM)A: Phenolic Compounds								
Phenol	08-95-2	*0	Jg/L	""	""	8*0	8*0	8*0
2-Chlorophenol	95-57-8	*0	Jg/L	""	""	8*0	8*0	8*0
2-Methylphenol	95-48-7	*0	Jg/L	""	""	8*0	8*0	**225**
3- & 4-Methylphenol	1319-77-3	2.0	Jg/L	""	""	<2.0	<2.0	**49.0**
2-Nitrophenol	88-75-5	*0	Jg/L	""	""	8*0	8*0	8*0
2.4-Dimethylphenol	05-67-9	*0	Jg/L	""	""	8*0	8*0	**4.6**
2.4-Dichlorophenol	120-83-2	*0	Jg/L	""	""	8*0	8*0	**1.3**
2.6-Dichlorophenol	87-65-0	*0	Jg/L	""	""	8*0	8*0	8*0
4-Chloro-3-Methylphenol	&9'&0-7	*0	Jg/L	""	""	8*0	8*0	**36.4**
2.4.6-Trichlorophenol	88-06-2	*0	Jg/L	""	""	8*0	8*0	8*0
2.4.5-Trichlorophenol	9&'9&''	*0	Jg/L	""	""	8*0	8*0	**1.0**
Pentachlorophenol	87-86-5	2.0	Jg/L	""	""	<2.0	<2.0	<2.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	*0	Jg/L	""	""	8*0	**19.5**	**24.0**
Acenaphthylene	208-96-8	*0	Jg/L	""	""	8*0	8*0	8*0
Acenaphthene	83-32-9	*0	Jg/L	""	""	8*0	8*0	8*0
Fluorene	86-73-7	*0	Jg/L	""	""	8*0	8*0	8*0
Phenanthrene	85-01-8	*0	Jg/L	""	""	8*0	8*0	8*0
Anthracene	120-12-7	*0	Jg/L	""	""	8*0	8*0	8*0
Fluoranthene	20''''' 0	*0	Jg/L	""	""	8*0	8*0	8*0
Pyrene	129'00'0	*0	Jg/L	""	""	8*0	8*0	8*0

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Sub-Ma˜˜˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-001	EB0908932-002	EB0908932-003	EB0908932-004	EB0908932-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	*0	Jg/L	""	""	8*0	8*0	8*0
Chrysene	218-0'9	*0	Jg/L	""	""	8*0	8*0	8*0
Benzo(b)fluoranthene	20&'99-2	*0	Jg/L	""	""	8*0	8*0	8*0
Benzo(k)fluoranthene	207-08-9	*0	Jg/L	""	""	8*0	8*0	8*0
Benzo(a)pyrene	&0-32-8	0*&	Jg/L	""	""	80*&	80*&	80*&
Indeno(1.2.3.cd)pyrene	93-39'&	*0	Jg/L	""	""	8*0	8*0	8*0
Dibenz(a.h)anthracene	53-70-3	*0	Jg/L	""	""	8*0	8*0	8*0
Benzo(g.h.i)perylene	91-24-2	*0	Jg/L	""	""	8*0	8*0	8*0
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	""	20	Jg/L	<20	<20	<20	**30**	**60**
C10 - C14 Fraction	""	&0	Jg/L	""	""	""	**90**	**450**
C10 - C14 Fraction	""	&0	Jg/L	8&0	8&0	8&0	""	""
C15 - C28 Fraction	""	00	Jg/L	""	""	""	8 00	**500**
C15 - C28 Fraction	""	00	Jg/L	8 00	8 00	8 00	""	""
C29 - C36 Fraction	""	&0	Jg/L	""	""	""	8&0	**150**
C29 - C36 Fraction	""	&0	Jg/L	8&0	8&0	8&0	""	""
EP080: BTEX								
Benzene	71-43-2		Jg/L	8	8	""	""	""
Toluene	08-88-3	2	Jg/L	<2	<2	""	""	""
Ethylbenzene	00'' ''	2	Jg/L	<2	<2	""	""	""
meta- & para-Xylene	08-38-3 106-42-3	2	Jg/L	<2	<2	""	""	""
ortho-Xylene	95-47-6	2	Jg/L	<2	<2	""	""	""
EP070S:TPH Surrogates - Speciation								
2-Fluorobiphenyl	321-60-8	0*	K	""	""	""	**80.1**	**81.2**
2-Bromonaphthalene	580-13-2	0*	K	""	""	""	**64.4**	**56.9**
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	170˝0'07-0	0*	K	""	""	**95.7**	**99.7**	**89.8**
Toluene-D8	2037-26-5	0*	K	""	""	**92.5**	**102**	**95.4**
4-Bromofluorobenzene	·˝ 0'00''	0*	K	""	""	**93.3**	**93.6**	**91.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0*	K	""	""	**32.7**	**43.2**	**35.0**
2-Chlorophenol-D4	93951-73-6	0*	K	""	""	**86.3**	**98.8**	**75.4**
2.4.6-Tribromophenol	118-79'˝	0*	K	""	""	**93.5**	**108**	**104**
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0*	K	""	""	**95.3**	**99.9**	**78.0**
Anthracene-d10	1719'06-8	0*	K	""	""	**83.0**	**108**	**93.3**
4-Terphenyl-d14	1718-51-0	0*	K	""	""	**92.0**	**110**	**87.7**

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Sub-Ma˜˜˝5: WATER				Client sample ID	MW01	MW02	MW03	MW04	MW05
				Client sampling date / time	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
Compound	*CAS Number*	*LOR*	*Unit*		**EB0908932-001**	**EB0908932-002**	**EB0908932-003**	**EB0908932-004**	**EB0908932-005**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	170˝ 0' 07-0	0*	K		**96.8**	**99.6**	**99.5**	**104**	**93.6**
Toluene-D8	2037-26-5	0*	K		**96.8**	**99.7**	**95.3**	**105**	**98.3**
4-Bromofluorobenzene	˙˝ 0' 00''	0*	K		**94.2**	**96.8**	**93.3**	**102**	**99.5**

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Sub-Ma˘˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	DUP05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-006	EB0908932-007	EB0908932-008	EB0908932-009	EB0908932-010
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0*00	˜ g/L	**0.025**	**0.002**	**0.018**	**0.001**	**0.026**
Cadmium	7440-43-9	0*000	˜ g/L	80*000	80*000	8 0*000	**0.0001**	80*000
Chromium	7440-47-3	0*00	˜ g/L	80*00	80*00	**0.004**	80*00	8 0*00
Copper	7440'&0-8	0*00	˜ g/L	80*00	80*00	8 0*00	**0.001**	80*00
Lead	7439' 92-1	0*00	˜ g/L	80*00	80*00	8 0*00	**0.001**	80*00
Nickel	7440' 02-0	0*00	˜ g/L	**0.013**	**0.019**	**0.017**	**0.002**	**0.014**
Zinc	7440'˝˝˝	0*00&	˜ g/L	**0.038**	**0.010**	**0.012**	**0.042**	**0.039**
EG035F: Dissolved Mercury by FIMS								
Mercury	7439' 97-6	0*000	˜ g/L	80*000	80*000	8 0*000	8 0*000	8 0*000
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0*0	˜ g/L	**50.4**	**119**	**92.6**	**0.50**	""
EP070: Total Petroleum Hydrocarbons - Speciation								
Aliphatic C10-C14	""	&0	Jg/L	""	8&0	""	""	""
Aliphatic C15-C28	""	00	Jg/L	""	8 00	""	""	""
Aliphatic C29-C36	""	&0	Jg/L	""	8&0	""	""	""
Aromatic C10-C14	""	&0	Jg/L	""	**70**	""	""	""
Aromatic C15-C28	""	00	Jg/L	""	8 00	""	""	""
Aromatic C29-C36	""	&0	Jg/L	""	8&0	""	""	""
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	&	Jg/L	8&	8&	8&	8&	""
Toluene	08-88-3	&	Jg/L	**7**	8&	8&	8&	""
Ethylbenzene	00'' ''	&	Jg/L	8&	8&	**8**	8&	""
meta- & para-Xylene	08-38-3 106-42-3	&	Jg/L	8&	8&	**9**	8&	""
Styrene	00-42-5	&	Jg/L	8&	8&	8&	8&	""
ortho-Xylene	95-47-6	&	Jg/L	8&	8&	8&	8&	""
Isopropylbenzene	98-82-8	&	Jg/L	8&	8&	8&	8&	""
n-Propylbenzene	03-65-1	&	Jg/L	8&	8&	8&	8&	""
1.3.5-Trimethylbenzene	08-67-8	&	Jg/L	8&	8&	8&	8&	""
sec-Butylbenzene	135-98-8	&	Jg/L	8&	8&	8&	8&	""
1.2.4-Trimethylbenzene	95-63-6	&	Jg/L	8&	8&	**17**	8&	""
tert-Butylbenzene	98-0˝˝	&	Jg/L	8&	8&	8&	8&	""
p-Isopropyltoluene	99-87-6	&	Jg/L	8&	8&	**29**	8&	""
n-Butylbenzene	04-51-8	&	Jg/L	8&	8&	8&	8&	""
EP074B: Oxygenated Compounds								
Vinyl Acetate	08-0&''	&0	Jg/L	8&0	8&0	8&0	8&0	""
2-Butanone (MEK)	78-93-3	&0	Jg/L	8&0	8&0	8&0	8&0	""
4-Methyl-2-pentanone (MIBK)	08-10'	&0	Jg/L	8&0	8&0	8&0	8&0	""

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Sub-Ma˜˜˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	DUP05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-006	EB0908932-007	EB0908932-008	EB0908932-009	EB0908932-010
EP074B: Oxygenated Compounds - Continued								
2-Hexanone (MBK)	&91-78-6	&0	Jg/L	8&0	8&0	8&0	8&0	""
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	&	Jg/L	8&	8&	8&	8&	""
EP074D: Fumigants								
2.2-Dichloropropane	&94-20-7	&	Jg/L	8&	8&	8&	8&	""
1.2-Dichloropropane	78-87-5	&	Jg/L	8&	8&	8&	8&	""
cis-1.3-Dichloropropylene	00˝ ' 0 '&	&	Jg/L	8&	8&	8&	8&	""
trans-1.3-Dichloropropylene	00˝ ' 02-6	&	Jg/L	8&	8&	8&	8&	""
1.2-Dibromoethane (EDB)	0˝ 93-4	&	Jg/L	8&	8&	8&	8&	""
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	&0	Jg/L	8&0	8&0	8&0	8&0	""
Chloromethane	74-87-3	&0	Jg/L	8&0	8&0	8&0	8&0	""
Vinyl chloride	75-0 ''	&0	Jg/L	8&0	8&0	8&0	8&0	""
Bromomethane	74-83-9	&0	Jg/L	8&0	8&0	8&0	8&0	""
Chloroethane	75-00-3	&0	Jg/L	8&0	8&0	8&0	8&0	""
Trichlorofluoromethane	75-69''	&0	Jg/L	8&0	8&0	8&0	8&0	""
1.1-Dichloroethene	75-35-4	&	Jg/L	8&	8&	8&	8&	""
Iodomethane	74-88-4	&	Jg/L	8&	8&	8&	8&	""
trans-1.2-Dichloroethene	&˝˝ 0'&	&	Jg/L	8&	8&	8&	8&	""
1.1-Dichloroethane	75-34-3	&	Jg/L	8&	8&	8&	8&	""
cis-1.2-Dichloroethene	&˝& 9-2	&	Jg/L	8&	8&	8&	8&	""
1.1.1-Trichloroethane	71-55-6	&	Jg/L	8&	8&	8&	8&	""
1.1-Dichloropropylene	563-58-6	&	Jg/L	8&	8&	8&	8&	""
Carbon Tetrachloride	56-23-5	&	Jg/L	8&	8&	8&	8&	""
1.2-Dichloroethane	07-06-2	&	Jg/L	8&	8&	8&	8&	""
Trichloroethene	79'0 '˝	&	Jg/L	8&	8&	8&	8&	""
Dibromomethane	74-95-3	&	Jg/L	8&	8&	8&	8&	""
1.1.2-Trichloroethane	79'00'&	&	Jg/L	8&	8&	8&	8&	""
1.3-Dichloropropane	142-28-9	&	Jg/L	8&	8&	8&	8&	""
Tetrachloroethene	127-18-4	&	Jg/L	8&	8&	8&	8&	""
1.1.1.2-Tetrachloroethane	630-20'˝	&	Jg/L	8&	8&	8&	8&	""
trans-1.4-Dichloro-2-butene	0-57-6	&	Jg/L	8&	8&	8&	8&	""
cis-1.4-Dichloro-2-butene	1476-11-5	&	Jg/L	8&	8&	8&	8&	""
1.1.2.2-Tetrachloroethane	79-34-5	&	Jg/L	8&	8&	8&	8&	""
1.2.3-Trichloropropane	96-18-4	&	Jg/L	8&	8&	8&	8&	""
Pentachloroethane	76-01-7	&	Jg/L	8&	8&	8&	8&	""
1.2-Dibromo-3-chloropropane	96-12-8	&	Jg/L	8&	8&	8&	8&	""
Hexachlorobutadiene	87-68-3	&	Jg/L	8&	8&	8&	8&	""

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Analytical Results

Sub-Ma˜˜˝5: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	DUP05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-006	EB0908932-007	EB0908932-008	EB0908932-009	EB0908932-010
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	08-90-7	&	Jg/L	8&	**7**	8&	8&	""
Bromobenzene	08-86-1	&	Jg/L	8&	8&	8&	8&	""
2-Chlorotoluene	9&˙˙ 9-8	&	Jg/L	8&	8&	8&	8&	""
4-Chlorotoluene	06-43-4	&	Jg/L	8&	8&	8&	8&	""
1.3-Dichlorobenzene	541-73-1	&	Jg/L	8&	8&	8&	8&	""
1.4-Dichlorobenzene	06-46-7	&	Jg/L	**9**	**15**	8&	8&	""
1.2-Dichlorobenzene	9&'&0'	&	Jg/L	8&	8&	8&	8&	""
1.2.4-Trichlorobenzene	120-82-1	&	Jg/L	8&	8&	8&	8&	""
1.2.3-Trichlorobenzene	87-61-6	&	Jg/L	8&	8&	8&	8&	""
EP074G: Trihalomethanes								
Chloroform	67-66-3	&	Jg/L	8&	8&	8&	8&	""
Bromodichloromethane	75-27-4	&	Jg/L	8&	8&	8&	8&	""
Dibromochloromethane	124-48-1	&	Jg/L	8&	8&	8&	8&	""
Bromoform	75-25-2	&	Jg/L	8&	8&	8&	8&	""
EP074H: Naphthalene								
Naphthalene	91-20-3	7	Jg/L	**20**	**11**	<7	<7	""
EP075(SIM)A: Phenolic Compounds								
Phenol	08-95-2	*0	Jg/L	8*0	8*0	8*0	8*0	""
2-Chlorophenol	95-57-8	*0	Jg/L	8*0	8*0	8*0	8*0	""
2-Methylphenol	95-48-7	*0	Jg/L	**2.0**	8*0	8*0	8*0	""
3- & 4-Methylphenol	1319-77-3	2.0	Jg/L	<2.0	<2.0	<2.0	<2.0	""
2-Nitrophenol	88-75-5	*0	Jg/L	8*0	8*0	8*0	8*0	""
2.4-Dimethylphenol	05-67-9	*0	Jg/L	**1.2**	8*0	8*0	8*0	""
2.4-Dichlorophenol	120-83-2	*0	Jg/L	8*0	8*0	8*0	8*0	""
2.6-Dichlorophenol	87-65-0	*0	Jg/L	8*0	8*0	8*0	8*0	""
4-Chloro-3-Methylphenol	&9'&0-7	*0	Jg/L	8*0	8*0	8*0	8*0	""
2.4.6-Trichlorophenol	88-06-2	*0	Jg/L	8*0	8*0	8*0	8*0	""
2.4.5-Trichlorophenol	9&'9&˙˙	*0	Jg/L	8*0	8*0	8*0	8*0	""
Pentachlorophenol	87-86-5	2.0	Jg/L	<2.0	<2.0	<2.0	<2.0	""
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	*0	Jg/L	**8.1**	**5.8**	**1.8**	8*0	""
Acenaphthylene	208-96-8	*0	Jg/L	8*0	8*0	8*0	8*0	""
Acenaphthene	83-32-9	*0	Jg/L	8*0	8*0	8*0	8*0	""
Fluorene	86-73-7	*0	Jg/L	8*0	8*0	8*0	8*0	""
Phenanthrene	85-01-8	*0	Jg/L	**1.3**	8*0	8*0	8*0	""
Anthracene	120-12-7	*0	Jg/L	8*0	8*0	8*0	8*0	""
Fluoranthene	20˝˙˙˙ 0	*0	Jg/L	8*0	8*0	8*0	8*0	""
Pyrene	129'00'0	*0	Jg/L	8*0	8*0	8*0	8*0	""

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Sub-Ma˜˜˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	DUP05
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
				EB0908932-006	EB0908932-007	EB0908932-008	EB0908932-009	EB0908932-010
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	*0	Jg/L	8*0	8*0	8*0	8*0	""
Chrysene	218-0'9	*0	Jg/L	8*0	8*0	8*0	8*0	""
Benzo(b)fluoranthene	20&'99-2	*0	Jg/L	8*0	8*0	8*0	8*0	""
Benzo(k)fluoranthene	207-08-9	*0	Jg/L	8*0	8*0	8*0	8*0	""
Benzo(a)pyrene	&0-32-8	0*&	Jg/L	80*&	80*&	80*&	80*&	""
Indeno(1.2.3.cd)pyrene	93-39'&	*0	Jg/L	8*0	8*0	8*0	8*0	""
Dibenz(a.h)anthracene	53-70-3	*0	Jg/L	8*0	8*0	8*0	8*0	""
Benzo(g.h.i)perylene	91-24-2	*0	Jg/L	8*0	8*0	8*0	8*0	""
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	""	20	Jg/L	40	30	40	<20	40
C10 - C14 Fraction	""	&0	Jg/L	""	140	""	""	""
C10 - C14 Fraction	""	&0	Jg/L	""	""	310	8&0	590
C15 - C28 Fraction	""	00	Jg/L	""	300	""	""	""
C15 - C28 Fraction	""	00	Jg/L	""	""	700	8 00	1100
C29 - C36 Fraction	""	&0	Jg/L	""	8&0	""	""	""
C29 - C36 Fraction	""	&0	Jg/L	""	""	240	8&0	120
EP080: BTEX								
Benzene	71-43-2		Jg/L	""	""	""	""	2
Toluene	08-88-3	2	Jg/L	""	""	""	""	7
Ethylbenzene	00'' ''	2	Jg/L	""	""	""	""	2
meta- & para-Xylene	08-38-3 106-42-3	2	Jg/L	""	""	""	""	2
ortho-Xylene	95-47-6	2	Jg/L	""	""	""	""	<2
EP070S:TPH Surrogates - Speciation								
2-Fluorobiphenyl	321-60-8	0*	K	""	80.5	""	""	""
2-Bromonaphthalene	580-13-2	0*	K	""	62.1	""	""	""
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	170˝0'07-0	0*	K	95.2	89.5	93.0	98.9	""
Toluene-D8	2037-26-5	0*	K	104	97.2	99.9	100	""
4-Bromofluorobenzene	·˝ 0'00''	0*	K	97.1	88.5	95.1	90.3	""
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0*	K	42.5	29.7	20.1	31.6	""
2-Chlorophenol-D4	93951-73-6	0*	K	97.7	87.0	49.9	87.0	""
2.4.6-Tribromophenol	118-79''	0*	K	118	119	53.8	93.2	""
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0*	K	90.8	94.8	52.4	96.5	""
Anthracene-d10	1719'06-8	0*	K	104	103	51.8	88.8	""
4-Terphenyl-d14	1718-51-0	0*	K	103	107	53.5	95.6	""

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Sub-Ma˜˜˝5: WATER			Client sample ID	MW06	MW07	MW08	MW09	DUP05
			Client sampling date / time	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00
Compound	*CAS Number*	*LOR*	*Unit*	EB0908932-006	EB0908932-007	EB0908932-008	EB0908932-009	EB0908932-010
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	170˝ 0' 07-0	0*	K	**99.7**	**93.0**	**96.2**	**103**	**95.6**
Toluene-D8	2037-26-5	0*	K	**108**	**100**	**103**	**103**	**100**
4-Bromofluorobenzene	˙˝ 0' 00''	0*	K	**106**	**96.1**	**103**	**98.1**	**98.7**

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Sub-Ma˘˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MWA (CR13)	MWB (CR14)	MWC (CR15)	Drain	""
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	""
				EB0908932-011	EB0908932-012	EB0908932-013	EB0908932-014	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0*00	˜ g/L	**0.022**	**0.002**	**0.002**	**0.001**	""
Cadmium	7440-43-9	0*000	˜ g/L	80*000	80*000	**0.0003**	80*000	""
Chromium	7440-47-3	0*00	˜ g/L	80*00	80*00	8 0*00	8 0*00	""
Copper	7440'&0-8	0*00	˜ g/L	80*00	**0.002**	**0.001**	**0.003**	""
Lead	7439' 92-1	0*00	˜ g/L	80*00	80*00	**0.002**	80*00	""
Nickel	7440' 02-0	0*00	˜ g/L	**0.001**	**0.002**	**0.003**	**0.001**	""
Zinc	7440'˝˝˝	0*00&	˜ g/L	**0.016**	**0.015**	**0.070**	**0.173**	""
EG035F: Dissolved Mercury by FIMS								
Mercury	7439' 97-6	0*000	˜ g/L	80*000	80*000	8 0*000	8 0*000	""
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0*0	˜ g/L	**9.79**	""	""	**4.21**	""
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	&	Jg/L	8&	""	""	8&	""
Toluene	08-88-3	&	Jg/L	8&	""	""	8&	""
Ethylbenzene	00'˙ '˙	&	Jg/L	8&	""	""	8&	""
meta- & para-Xylene	08-38-3 106-42-3	&	Jg/L	8&	""	""	8&	""
Styrene	00-42-5	&	Jg/L	8&	""	""	8&	""
ortho-Xylene	95-47-6	&	Jg/L	8&	""	""	8&	""
Isopropylbenzene	98-82-8	&	Jg/L	8&	""	""	8&	""
n-Propylbenzene	03-65-1	&	Jg/L	8&	""	""	8&	""
1.3.5-Trimethylbenzene	08-67-8	&	Jg/L	8&	""	""	8&	""
sec-Butylbenzene	135-98-8	&	Jg/L	8&	""	""	8&	""
1.2.4-Trimethylbenzene	95-63-6	&	Jg/L	8&	""	""	8&	""
tert-Butylbenzene	98-0˝˝	&	Jg/L	8&	""	""	8&	""
p-Isopropyltoluene	99-87-6	&	Jg/L	8&	""	""	8&	""
n-Butylbenzene	04-51-8	&	Jg/L	8&	""	""	8&	""
EP074B: Oxygenated Compounds								
Vinyl Acetate	08-0&'˙	&0	Jg/L	8&0	""	""	8&0	""
2-Butanone (MEK)	78-93-3	&0	Jg/L	8&0	""	""	8&0	""
4-Methyl-2-pentanone (MIBK)	08-10'	&0	Jg/L	8&0	""	""	8&0	""
2-Hexanone (MBK)	&91-78-6	&0	Jg/L	8&0	""	""	8&0	""
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	&	Jg/L	8&	""	""	8&	""
EP074D: Fumigants								
2.2-Dichloropropane	&94-20-7	&	Jg/L	8&	""	""	8&	""
1.2-Dichloropropane	78-87-5	&	Jg/L	8&	""	""	8&	""
cis-1.3-Dichloropropylene	00˝ ' 0 '&	&	Jg/L	8&	""	""	8&	""

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Sub-Ma˘˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MWA (CR13)	MWB (CR14)	MWC (CR15)	Drain	""
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	""
				EB0908932-011	EB0908932-012	EB0908932-013	EB0908932-014	----
EP074D: Fumigants - Continued								
trans-1.3-Dichloropropylene	00˝ ' 02-6	&	Jg/L	8&	""	""	8&	""
1.2-Dibromoethane (EDB)	0˝ 93-4	&	Jg/L	8&	""	""	8&	""
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	&0	Jg/L	8&0	""	""	8&0	""
Chloromethane	74-87-3	&0	Jg/L	8&0	""	""	8&0	""
Vinyl chloride	75-0 ''	&0	Jg/L	8&0	""	""	8&0	""
Bromomethane	74-83-9	&0	Jg/L	8&0	""	""	8&0	""
Chloroethane	75-00-3	&0	Jg/L	8&0	""	""	8&0	""
Trichlorofluoromethane	75-69'˙	&0	Jg/L	8&0	""	""	8&0	""
1.1-Dichloroethene	75-35-4	&	Jg/L	8&	""	""	8&	""
Iodomethane	74-88-4	&	Jg/L	8&	""	""	8&	""
trans-1.2-Dichloroethene	&˝˝ 0'&	&	Jg/L	8&	""	""	8&	""
1.1-Dichloroethane	75-34-3	&	Jg/L	8&	""	""	8&	""
cis-1.2-Dichloroethene	&˝& 9-2	&	Jg/L	8&	""	""	8&	""
1.1.1-Trichloroethane	71-55-6	&	Jg/L	8&	""	""	8&	""
1.1-Dichloropropylene	563-58-6	&	Jg/L	8&	""	""	8&	""
Carbon Tetrachloride	56-23-5	&	Jg/L	8&	""	""	8&	""
1.2-Dichloroethane	07-06-2	&	Jg/L	8&	""	""	8&	""
Trichloroethene	79'0 ˝	&	Jg/L	8&	""	""	8&	""
Dibromomethane	74-95-3	&	Jg/L	8&	""	""	8&	""
1.1.2-Trichloroethane	79'00'&	&	Jg/L	8&	""	""	8&	""
1.3-Dichloropropane	142-28-9	&	Jg/L	8&	""	""	8&	""
Tetrachloroethene	127-18-4	&	Jg/L	8&	""	""	8&	""
1.1.1.2-Tetrachloroethane	630-20'˝	&	Jg/L	8&	""	""	8&	""
trans-1.4-Dichloro-2-butene	0-57-6	&	Jg/L	8&	""	""	8&	""
cis-1.4-Dichloro-2-butene	1476-11-5	&	Jg/L	8&	""	""	8&	""
1.1.2.2-Tetrachloroethane	79-34-5	&	Jg/L	8&	""	""	8&	""
1.2.3-Trichloropropane	96-18-4	&	Jg/L	8&	""	""	8&	""
Pentachloroethane	76-01-7	&	Jg/L	8&	""	""	8&	""
1.2-Dibromo-3-chloropropane	96-12-8	&	Jg/L	8&	""	""	8&	""
Hexachlorobutadiene	87-68-3	&	Jg/L	8&	""	""	8&	""
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	08-90-7	&	Jg/L	8&	""	""	8&	""
Bromobenzene	08-86-1	&	Jg/L	8&	""	""	8&	""
2-Chlorotoluene	9&'˙ 9-8	&	Jg/L	8&	""	""	8&	""
4-Chlorotoluene	06-43-4	&	Jg/L	8&	""	""	8&	""
1.3-Dichlorobenzene	541-73-1	&	Jg/L	8&	""	""	8&	""
1.4-Dichlorobenzene	06-46-7	&	Jg/L	8&	""	""	8&	""

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Analytical Results

Sub-Ma˘˝5: WATER

Compound	CAS Number	LOR	Unit	Client sample ID: MWA (CR13)	MWB (CR14)	MWC (CR15)	Drain	""
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	""
				EB0908932-011	EB0908932-012	EB0908932-013	EB0908932-014	----
EP074F: Halogenated Aromatic Compounds - Continued								
1.2-Dichlorobenzene	9&'&0'	&	Jg/L	8&	""	""	8&	""
1.2.4-Trichlorobenzene	120-82-1	&	Jg/L	8&	""	""	8&	""
1.2.3-Trichlorobenzene	87-61-6	&	Jg/L	8&	""	""	8&	""
EP074G: Trihalomethanes								
Chloroform	67-66-3	&	Jg/L	8&	""	""	8&	""
Bromodichloromethane	75-27-4	&	Jg/L	8&	""	""	8&	""
Dibromochloromethane	124-48-1	&	Jg/L	8&	""	""	8&	""
Bromoform	75-25-2	&	Jg/L	8&	""	""	8&	""
EP074H: Naphthalene								
Naphthalene	91-20-3	7	Jg/L	<7	""	""	<7	""
EP075(SIM)A: Phenolic Compounds								
Phenol	08-95-2	*0	Jg/L	8*0	""	""	8*0	""
2-Chlorophenol	95-57-8	*0	Jg/L	8*0	""	""	8*0	""
2-Methylphenol	95-48-7	*0	Jg/L	8*0	""	""	8*0	""
3- & 4-Methylphenol	1319-77-3	2.0	Jg/L	<2.0	""	""	<2.0	""
2-Nitrophenol	88-75-5	*0	Jg/L	8*0	""	""	8*0	""
2.4-Dimethylphenol	05-67-9	*0	Jg/L	8*0	""	""	8*0	""
2.4-Dichlorophenol	120-83-2	*0	Jg/L	8*0	""	""	8*0	""
2.6-Dichlorophenol	87-65-0	*0	Jg/L	8*0	""	""	8*0	""
4-Chloro-3-Methylphenol	&9'&0-7	*0	Jg/L	8*0	""	""	8*0	""
2.4.6-Trichlorophenol	88-06-2	*0	Jg/L	8*0	""	""	8*0	""
2.4.5-Trichlorophenol	9&'9&'˙	*0	Jg/L	8*0	""	""	8*0	""
Pentachlorophenol	87-86-5	2.0	Jg/L	<2.0	""	""	<2.0	""
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	*0	Jg/L	8*0	""	""	8*0	""
Acenaphthylene	208-96-8	*0	Jg/L	8*0	""	""	8*0	""
Acenaphthene	83-32-9	*0	Jg/L	8*0	""	""	8*0	""
Fluorene	86-73-7	*0	Jg/L	8*0	""	""	8*0	""
Phenanthrene	85-01-8	*0	Jg/L	8*0	""	""	8*0	""
Anthracene	120-12-7	*0	Jg/L	8*0	""	""	8*0	""
Fluoranthene	20˝˙˙˙ 0	*0	Jg/L	8*0	""	""	8*0	""
Pyrene	129' 00'0	*0	Jg/L	8*0	""	""	8*0	""
Benz(a)anthracene	56-55-3	*0	Jg/L	8*0	""	""	8*0	""
Chrysene	218-0 ' 9	*0	Jg/L	8*0	""	""	8*0	""
Benzo(b)fluoranthene	20&'99-2	*0	Jg/L	8*0	""	""	8*0	""
Benzo(k)fluoranthene	207-08-9	*0	Jg/L	8*0	""	""	8*0	""
Benzo(a)pyrene	&0-32-8	0*&	Jg/L	80*&	""	""	80*&	""
Indeno(1.2.3.cd)pyrene	93-39'&	*0	Jg/L	8*0	""	""	8*0	""

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Analytical Results

Sub-Ma˘˝5: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MWA (CR13)	MWB (CR14)	MWC (CR15)	Drain	""
				Client sampling date / time: 02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	02-JUN-2009 15:00	""
				EB0908932-011	EB0908932-012	EB0908932-013	EB0908932-014	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Dibenz(a.h)anthracene	53-70-3	*0	Jg/L	8*0	""	""	8*0	""
Benzo(g.h.i)perylene	91-24-2	*0	Jg/L	8*0	""	""	8*0	""
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	""	20	Jg/L	<20	<20	<20	<20	""
C10 - C14 Fraction	""	&0	Jg/L	8&0	8&0	8&0	8&0	""
C15 - C28 Fraction	""	00	Jg/L	**400**	8 00	8 00	8 00	""
C29 - C36 Fraction	""	&0	Jg/L	**110**	8&0	**90**	8&0	""
EP080: BTEX								
Benzene	71-43-2		Jg/L	""	8	8	""	""
Toluene	08-88-3	2	Jg/L	""	<2	<2	""	""
Ethylbenzene	00'' ''	2	Jg/L	""	<2	<2	""	""
meta- & para-Xylene	08-38-3 106-42-3	2	Jg/L	""	<2	<2	""	""
ortho-Xylene	95-47-6	2	Jg/L	""	<2	<2	""	""
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	170˝ 0' 07-0	0*	K	**99.4**	""	""	**106**	""
Toluene-D8	2037-26-5	0*	K	**95.5**	""	""	**101**	""
4-Bromofluorobenzene	·˝ 0' 00''	0*	K	**89.1**	""	""	**91.8**	""
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0*	K	**34.8**	""	""	**33.8**	""
2-Chlorophenol-D4	93951-73-6	0*	K	**89.8**	""	""	**85.9**	""
2.4.6-Tribromophenol	118-79'˝	0*	K	**101**	""	""	**90.0**	""
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0*	K	**96.4**	""	""	**92.8**	""
Anthracene-d10	1719' 06-8	0*	K	**89.4**	""	""	**88.3**	""
4-Terphenyl-d14	1718-51-0	0*	K	**96.5**	""	""	**95.5**	""
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	170˝ 0' 07-0	0*	K	**103**	**110**	**99.5**	**110**	""
Toluene-D8	2037-26-5	0*	K	**98.1**	**104**	**96.2**	**104**	""
4-Bromofluorobenzene	·˝ 0' 00''	0*	K	**96.7**	**103**	**93.3**	**99.8**	""

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Surrogate Control Limits

Sub-Ma˘˘5: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP070S:TPH Surrogates - Speciation			
2-Fluorobiphenyl	321-60-8	˝0	˙0
2-Bromonaphthalene	580-13-2	˝0	˙0
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	170˝0'07-0	80	120
Toluene-D8	2037-26-5	88	0
4-Bromofluorobenzene	˙˝ 0'00˙˙	86	&
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	0	9˙
2-Chlorophenol-D4	93951-73-6	23	134
2.4.6-Tribromophenol	118-79˝˝	0	123
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	43	˝
Anthracene-d10	1719'06-8	27	133
4-Terphenyl-d14	1718-51-0	33	˙
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	170˝0'07-0	80	120
Toluene-D8	2037-26-5	88	0
4-Bromofluorobenzene	˙˝ 0'00˙˙	86	&

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0908932**	4; ; ¸	: * of * 5
7 <¸ >˙	: **SINCLAIR KNIGHT MERZ**	L; bo˝; ˙o˝9	: ?>@˝o>A¸ >˙;< B @=io> C˝ =b;> ¸
7 o>˙;D˙	: EF GHI KIHIF	7 o>˙;D˙	: Tim Kilmister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: ++++	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park		
C-O-C number	: ++++	Date Samples Received	: 03-JUN-2009
Sampler	: ++++	Issue Date	: 12-JUN-2009
Order number	: ++++		
		No. of samples received	: 14
Quote number	: *˘@!!"@!;	No. of samples analysed	: 14

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved &'r release.

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

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has 1 % carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Matthew Goodwin	Senior Organic Chemist	Organics
Stephen Hislop	Senior Inorganic Chemist	Inorganics
Xingbin Lin	Instrument Chemist	Organics

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General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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 insuffient 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

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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 ¸G˘ -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 (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 1002635)									
EB0908954-001	Anonymous	EG020A-F: Cadmium	7440-43-9	!.!!!4	mg/L	!!.!!!4	!!.!!!4	!.!	No Limit
		EG020A-F: Arsenic	7440-38-2	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Chromium	7440-47-3	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Copper	7440-50-8	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Lead	7439-92-1	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Nickel	7440-02-0	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Zinc	7440-66-6	!.!!)	mg/L	!!.!!)	!!.!!)	!.!	No Limit
EB0908954-010	Anonymous	EG020A-F: Cadmium	7440-43-9	!.!!!4	mg/L	!.!!!4	!.!!!4	!.!	No Limit
		EG020A-F: Arsenic	7440-38-2	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Chromium	7440-47-3	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Copper	7440-50-8	!.!!4	mg/L	0.025	!.!;!	# 113	0% - 20%
		EG020A-F: Lead	7439-92-1	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Nickel	7440-02-0	!.!!4	mg/L	0.006	0.006	!.!	No Limit
		EG020A-F: Zinc	7440-66-6	!.!!)	mg/L	0.028	0.036	25.1	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 1003848)									
EB0908929-014	Anonymous	EG020A-F: Cadmium	7440-43-9	!.!!!4	mg/L	!!.!!!4	!.!!!4	!.!	No Limit
		EG020A-F: Arsenic	7440-38-2	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Chromium	7440-47-3	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Copper	7440-50-8	!.!!4	mg/L	0.002	!.!!4	!.!	No Limit
		EG020A-F: Lead	7439-92-1	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Nickel	7440-02-0	!.!!4	mg/L	!!.!!4	0.002	!.!	No Limit
		EG020A-F: Zinc	7440-66-6	!.!!)	mg/L	!!.!!)	!!.!!)	!.!	No Limit
EB0908932-008	:G!7	EG020A-F: Cadmium	7440-43-9	!.!!!4	mg/L	!!.!!!4	!!.!!!4	!.!	No Limit
		EG020A-F: Arsenic	7440-38-2	!.!!4	mg/L	!.!47	!.!45	6.2	0% - 50%
		EG020A-F: Chromium	7440-47-3	!.!!4	mg/L	0.004	0.004	!.!	No Limit
		EG020A-F: Copper	7440-50-8	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Lead	7439-92-1	!.!!4	mg/L	!!.!!4	!!.!!4	!.!	No Limit
		EG020A-F: Nickel	7440-02-0	!.!!4	mg/L	!.!45	!.!47	!.!	0% - 50%
		EG020A-F: Zinc	7440-66-6	!.!!)	mg/L	0.012	!.!4"	!.!	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 1002634)									
EB0908954-001	Anonymous	EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	!!.!!!4	!.!	No Limit
EB0908954-010	Anonymous	EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	!!.!!!4	!.!	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 1003846)									
EB0908926-001	Anonymous	EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	!!.!!!4	!.!	No Limit
EB0908928-014	Anonymous	EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	!!.!!!4	!.!	No Limit

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG035F: Dissolved Mercury by FIMS (QC Lot: 1003849)									
EB0908932-002	MW02	EG035F: Mercury	7439-97-6	!.!!!4	mg/L	I!.!!!4	I!.!!!4	!.!	No Limit
EB0908932-013	MWC (CR15)	EG035F: Mercury	7439-97-6	!.!!!4	mg/L	I!.!!!4	I!.!!!4	!.!	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 1002596)									
EB0908818-001	Anonymous	EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	15.6	47.7	18.6	0% - 20%
EB0908818-011	Anonymous	EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	0.43	0.43	!.!	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 1003437)									
EB0908859-001	Anonymous	EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	1.21	1.16	4.2	0% - 20%
EB0908901-002	Anonymous	EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	!.7"	!.5)	10.6	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 1003439)									
EB0908932-003	:G!"	EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	I!.!4	!.I7	4))	No Limit
EB0909039-003	Anonymous	EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	I!.!4	I!.!4	!.!	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: Benzene	71-43-2	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Toluene	4!7+77+"	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Ethylbenzene	100-41-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Styrene	100-42-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: ortho-Xylene	95-47-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Isopropylbenzene	98-82-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: n-Propylbenzene	103-65-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: sec-Butylbenzene	4")+;7+7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: tert-Butylbenzene	98-06-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: p-Isopropyltoluene	99-87-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: n-Butylbenzene	104-51-8	)	NC@˝	I)	I)	!.!	No Limit
EB0908953-004	Anonymous	EP074: Benzene	71-43-2	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Toluene	4!7+77+"	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Ethylbenzene	100-41-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Styrene	100-42-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: ortho-Xylene	95-47-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Isopropylbenzene	98-82-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: n-Propylbenzene	103-65-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: sec-Butylbenzene	4")+;7+7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	)	NC@˝	I)	I)	!.!	No Limit

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1002578) - continued									
EB0908953-004	Anonymous	EP074: tert-Butylbenzene	98-06-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: p-Isopropyltoluene	99-87-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: n-Butylbenzene	104-51-8	)	NC@˝	I)	I)	!.!	No Limit
EP074B: Oxygenated Compounds (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: Pinyl Acetate	108-05-4	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: 2-Butanone (MEK)	57+;"+"	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	4!7+4!+4	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	)!	NC@˝	I)!	I)!	!.!	No Limit
EB0908953-004	Anonymous	EP074: Pinyl Acetate	108-05-4	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: 2-Butanone (MEK)	57+;"+"	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	4!7+4!+4	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	)!	NC@˝	I)!	I)!	!.!	No Limit
EP074C: Sulfonated Compounds (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: Carbon disulfide	5)+4)+!	)	NC@˝	I)	I)	!.!	No Limit
EB0908953-004	Anonymous	EP074: Carbon disulfide	5)+4)+!	)	NC@˝	I)	I)	!.!	No Limit
EP074D: Fumigants (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: 2.2-Dichloropropane	594-20-7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dichloropropane	57+75+)	)	NC@˝	I)	I)	!.!	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	)	NC@˝	I)	I)	!.!	No Limit
EB0908953-004	Anonymous	EP074: 2.2-Dichloropropane	594-20-7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dichloropropane	57+75+)	)	NC@˝	I)	I)	!.!	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	)	NC@˝	I)	I)	!.!	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: 1.1-Dichloroethene	75-35-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Iodomethane	74-88-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Carbon Tetrachloride	56-23-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Trichloroethene	79-01-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Dibromomethane	74-95-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.2-Trichloroethane	5;+!!+)	)	NC@˝	I)	I)	!.!	No Limit

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1002578) - continued									
EB0908932-003	:G!"	EP074: 1.3-Dichloropropane	142-28-9	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Tetrachloroethene	127-18-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Pentachloroethane	76-01-7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Hexachlorobutadiene	87-68-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Dichlorodifluoromethane	5)+54+7	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Chloromethane	74-87-3	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Pinyl chloride	75-01-4	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Bromomethane	74-83-9	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Chloroethane	5)+!!+"	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Trichlorofluoromethane	75-69-4	)!	NC@˝	I)!	I)!	!.!	No Limit
EB0908953-004	Anonymous	EP074: 1.1-Dichloroethene	75-35-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Iodomethane	74-88-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Carbon Tetrachloride	56-23-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Trichloroethene	79-01-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Dibromomethane	74-95-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.2-Trichloroethane	5;+!!+)	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Tetrachloroethene	127-18-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	)	NC@˝	I)	I)	!.!	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Pentachloroethane	76-01-7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Hexachlorobutadiene	87-68-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Dichlorodifluoromethane	5)+54+7	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Chloromethane	74-87-3	)!	NC@˝	I)!	I)!	!.!	No Limit

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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 (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1002578) - continued									
EB0908953-004	Anonymous	EP074: Pinyl chloride	75-01-4	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Bromomethane	74-83-9	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Chloroethane	5)+!!+"	)!	NC@˝	I)!	I)!	!.!	No Limit
		EP074: Trichlorofluoromethane	75-69-4	)!	NC@˝	I)!	I)!	!.!	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: Chlorobenzene	4!7+;!+5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Bromobenzene	108-86-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 2-Chlorotoluene	95-49-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 4-Chlorotoluene	106-43-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.4-Dichlorobenzene	106-46-7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dichlorobenzene	;)+)!+4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.4-Trichlorobenzene	120-82-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	)	NC@˝	I)	I)	!.!	No Limit
EB0908953-004	Anonymous	EP074: Chlorobenzene	4!7+;!+5	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Bromobenzene	108-86-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 2-Chlorotoluene	95-49-8	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 4-Chlorotoluene	106-43-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.3-Dichlorobenzene	541-73-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.4-Dichlorobenzene	106-46-7	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2-Dichlorobenzene	;)+)!+4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.4-Trichlorobenzene	120-82-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	)	NC@˝	I)	I)	!.!	No Limit
EP074G: Trihalomethanes (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: Chloroform	67-66-3	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Bromodichloromethane	75-27-4	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Dibromochloromethane	124-48-1	)	NC@˝	I)	I)	!.!	No Limit
		EP074: Bromoform	75-25-2	)	NC@˝	I)	I)	!.!	No Limit
EB0908953-004	Anonymous	EP074: Chloroform	67-66-3	)	NC@˝	"!	"4	!.!	No Limit
		EP074: Bromodichloromethane	75-27-4	)	NC@˝	45	45	!.!	No Limit
		EP074: Dibromochloromethane	124-48-1	)	NC@˝	5	5	!.!	No Limit
		EP074: Bromoform	75-25-2	)	NC@˝	I)	I)	!.!	No Limit
EP074H: Naphthalene (QC Lot: 1002578)									
EB0908932-003	:G!"	EP074: Naphthalene	91-20-3	5	NC@˝	I5	I5	!.!	No Limit
EB0908953-004	Anonymous	EP074: Naphthalene	91-20-3	5	NC@˝	I5	I5	!.!	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1002577)									
EB0908932-003	:G!"	EP080: C6 - C9 Fraction	++++	20	NC@˝	<20	<20	!.!	No Limit
EB0908953-004	Anonymous	EP080: C6 - C9 Fraction	++++	20	NC@˝	"!	"!	!.!	No Limit
EP080: BTEX (QC Lot: 1002577)									

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEX (QC Lot: 1002577) - continued									
EB0908932-003	:G!"	EP080: Benzene	71-43-2	4	NC@˝	I4	I4	!.!	No Limit
		EP080: Toluene	4!7+77+"	2	NC@˝	<2	<2	!.!	No Limit
		EP080: Ethylbenzene	100-41-4	2	NC@˝	<2	<2	!.!	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	NC@˝	<2	<2	!.!	No Limit
		EP080: ortho-Xylene	95-47-6	2	NC@˝	<2	<2	!.!	No Limit
EB0908953-004	Anonymous	EP080: Benzene	71-43-2	4	NC@˝	I4	I4	!.!	No Limit
		EP080: Toluene	4!7+77+"	2	NC@˝	<2	<2	!.!	No Limit
		EP080: Ethylbenzene	100-41-4	2	NC@˝	<2	<2	!.!	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	NC@˝	<2	<2	!.!	No Limit
		EP080: ortho-Xylene	95-47-6	2	NC@˝	<2	<2	!.!	No Limit

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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 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 (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 1002635)								
EG020A-F: Arsenic	7440-38-2	!.!!4	mg/L	!!.!!4	0.100 mg/L	94.8	7!	124
EG020A-F: Cadmium	7440-43-9	!.!!!4	mg/L	!!.!!!4	0.100 mg/L	102	7;	445
EG020A-F: Chromium	7440-47-3	!.!!4	mg/L	!!.!!4	0.100 mg/L	4!5	7)	127
EG020A-F: Copper	7440-50-8	!.!!4	mg/L	!!.!!4	0.200 mg/L	102	7)	44;
EG020A-F: Lead	7439-92-1	!.!!4	mg/L	!!.!!4	0.100 mg/L	102	77	116
EG020A-F: Nickel	7440-02-0	!.!!4	mg/L	!!.!!4	0.100 mg/L	104	7)	44;
EG020A-F: Zinc	7440-66-6	!.!!)	mg/L	!!.!!)	0.200 mg/L	4!7	86	4"!
EG020F: Dissolved Metals by ICP-MS (QCLot: 1003848)								
EG020A-F: Arsenic	7440-38-2	!.!!4	mg/L	!!.!!4	0.100 mg/L	97.2	7!	124
EG020A-F: Cadmium	7440-43-9	!.!!!4	mg/L	!!.!!!4	0.100 mg/L	98.6	7;	445
EG020A-F: Chromium	7440-47-3	!.!!4	mg/L	!!.!!4	0.100 mg/L	4!5	7)	127
EG020A-F: Copper	7440-50-8	!.!!4	mg/L	!!.!!4	0.200 mg/L	102	7)	44;
EG020A-F: Lead	7439-92-1	!.!!4	mg/L	!!.!!4	0.100 mg/L	96.9	77	116
EG020A-F: Nickel	7440-02-0	!.!!4	mg/L	!!.!!4	0.100 mg/L	;7.)	7)	44;
EG020A-F: Zinc	7440-66-6	!.!!)	mg/L	!!.!!)	0.200 mg/L	4!7	86	4"!
EG035F: Dissolved Mercury by FIMS (QCLot: 1002634)								
EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	0.010 mg/L	4!;	74	44)
EG035F: Dissolved Mercury by FIMS (QCLot: 1003846)								
EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	0.010 mg/L	;;.)	74	44)
EG035F: Dissolved Mercury by FIMS (QCLot: 1003849)								
EG035F: Mercury	7439-97-6	!.!!!4	mg/L	!!.!!!4	0.010 mg/L	98.6	74	44)
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1002596)								
EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	!!.!4	0.5 mg/L	81.4	5!	128
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003437)								
EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	!!.!4	0.5 mg/L	7!.!	5!	128
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003439)								
EK055G: Ammonia as N	7664-41-7	!.!4	mg/L	!!.!4	0.5 mg/L	75.7	5!	128
EP070: Total Petroleum Hydrocarbons - Speciation (QCLot: 1006014)								
EP070: Aliphatic C10-C14	++++	)!	NC@˝	!)!	8370 µg/L	70.6	5!	4"!
EP070: Aliphatic C15-C28	++++	4!!	NC@˝	!4!!	17280 µg/L	7).;	5!	4"!
EP070: Aliphatic C29-C36	++++	)!	NC@˝	!)!	++++	++++	++++	++++
EP070: Aromatic C10-C14	++++	)!	NC@˝	!)!	1392 µg/L	125	5!	4"!
EP070: Aromatic C15-C28	++++	4!!	NC@˝	!4!!	2352 µg/L	122	5!	4"!

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP070: Total Petroleum Hydrocarbons - Speciation (QCLot: 1006014) - continued								
EP070: Aromatic C29-C36	++++	)!	NC@˝	I)!	++++	++++	++++	++++
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1002578)								
EP074: Benzene	71-43-2	)	NC@˝	I)	10 µg/L	94.9	5)	122
EP074: Toluene	4!7+77+"	)	NC@˝	I)	10 µg/L	;).4	71.2	124
EP074: Ethylbenzene	100-41-4	)	NC@˝	I)	10 µg/L	96.5	76	120
EP074: meta- & para-Xylene	108-38-3 106-42-3	)	NC@˝	I)	20 µg/L	87.6	68	132
EP074: Styrene	100-42-5	)	NC@˝	I)	10 µg/L	96.6	68	127
EP074: ortho-Xylene	95-47-6	)	NC@˝	I)	10 µg/L	96.2	76	122
EP074: Isopropylbenzene	98-82-8	)	NC@˝	I)	10 µg/L	95.2	74	123
EP074: n-Propylbenzene	103-65-1	)	NC@˝	I)	10 µg/L	94.2	5!	125
EP074: 1.3.5-Trimethylbenzene	108-67-8	)	NC@˝	I)	10 µg/L	94.9	74	121
EP074: sec-Butylbenzene	4")+;7+7	)	NC@˝	I)	10 µg/L	4!!	72	124
EP074: 1.2.4-Trimethylbenzene	95-63-6	)	NC@˝	I)	10 µg/L	93.6	5".)	124
EP074: tert-Butylbenzene	98-06-6	)	NC@˝	I)	10 µg/L	;7.!	71.6	128
EP074: p-Isopropyltoluene	99-87-6	)	NC@˝	I)	10 µg/L	;).4	68.3	4"!
EP074: n-Butylbenzene	104-51-8	)	NC@˝	I)	10 µg/L	;5.!	67	126
EP074B: Oxygenated Compounds (QCLot: 1002578)								
EP074: Pinyl Acetate	108-05-4	)!	NC@˝	I)!	100 µg/L	;".!	65	147
EP074: 2-Butanone (MEK)	57+;"+"	)!	NC@˝	I)!	100 µg/L	83.6	54	4"!
EP074: 4-Methyl-2-pentanone (MIBK)	4!7+4!+4	)!	NC@˝	I)!	100 µg/L	91.2	63	4"5
EP074: 2-Hexanone (MBK)	591-78-6	)!	NC@˝	I)!	100 µg/L	7).5	62	4")
EP074C: Sulfonated Compounds (QCLot: 1002578)								
EP074: Carbon disulfide	5)+4)+!	)	NC@˝	I)	10 µg/L	;5.!	68	4")
EP074D: Fumigants (QCLot: 1002578)								
EP074: 2.2-Dichloropropane	594-20-7	)	NC@˝	I)	10 µg/L	4!!	60.7	143
EP074: 1.2-Dichloropropane	57+75+)	)	NC@˝	I)	10 µg/L	102	69.7	128
EP074: cis-1.3-Dichloropropylene	10061-01-5	)	NC@˝	I)	20 µg/L	96.4	68	4"4
EP074: trans-1.3-Dichloropropylene	10061-02-6	)	NC@˝	I)	20 µg/L	;).!	67	140
EP074: 1.2-Dibromoethane (EDB)	106-93-4	)	NC@˝	I)	10 µg/L	4!!	68.1	132
EP074E: Halogenated Aliphatic Compounds (QCLot: 1002578)								
EP074: Dichlorodifluoromethane	5)+54+7	)!	NC@˝	I)!	100 µg/L	91.4	52	4"!
EP074: Chloromethane	74-87-3	)!	NC@˝	I)!	100 µg/L	86.1	43.1	4"!
EP074: Pinyl chloride	75-01-4	)!	NC@˝	I)!	100 µg/L	4!7	)"	144
EP074: Bromomethane	74-83-9	)!	NC@˝	I)!	100 µg/L	106	)5.)	4"!
EP074: Chloroethane	5)+!!+"	)!	NC@˝	I)!	100 µg/L	86.9	5!	4"5
EP074: Trichlorofluoromethane	75-69-4	)!	NC@˝	I)!	100 µg/L	82.4	64	4")
EP074: 1.1-Dichloroethene	75-35-4	)	NC@˝	I)	10 µg/L	;5.4	63.9	4")

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP074E: Halogenated Aliphatic Compounds (QCLot: 1002578) - continued								
EP074: Iodomethane	74-88-4	)	NC@˝	I)	10 µg/L	90.6	57.2	4"!
EP074: trans-1.2-Dichloroethene	156-60-5	)	NC@˝	I)	10 µg/L	4!!	5!	128
EP074: 1.1-Dichloroethane	75-34-3	)	NC@˝	I)	10 µg/L	4!4	64	136
EP074: cis-1.2-Dichloroethene	156-59-2	)	NC@˝	I)	10 µg/L	4!4	54	128
EP074: 1.1.1-Trichloroethane	71-55-6	)	NC@˝	I)	10 µg/L	;;.5	68.4	4")
EP074: 1.1-Dichloropropylene	563-58-6	)	NC@˝	I)	10 µg/L	;).7	71.4	127
EP074: Carbon Tetrachloride	56-23-5	)	NC@˝	I)	10 µg/L	95.2	64	134
EP074: 1.2-Dichloroethane	107-06-2	)	NC@˝	I)	10 µg/L	;;.;	68	134
EP074: Trichloroethene	79-01-6	)	NC@˝	I)	10 µg/L	;7.!	72	127
EP074: Dibromomethane	74-95-3	)	NC@˝	I)	10 µg/L	96.6	63.9	136
EP074: 1.1.2-Trichloroethane	5;+!!+)	)	NC@˝	I)	10 µg/L	92.7	69.2	4""
EP074: 1.3-Dichloropropane	142-28-9	)	NC@˝	I)	10 µg/L	7;.4	5".5	4"!
EP074: Tetrachloroethene	127-18-4	)	NC@˝	I)	10 µg/L	4!"	5".7	132
EP074: 1.1.1.2-Tetrachloroethane	630-20-6	)	NC@˝	I)	10 µg/L	92.6	74	123
EP074: trans-1.4-Dichloro-2-butene	110-57-6	)	NC@˝	I)	10 µg/L	;!.4	26	4"!
EP074: cis-1.4-Dichloro-2-butene	1476-11-5	)	NC@˝	I)	10 µg/L	77.;	)4.4	4"!
EP074: 1.1.2.2-Tetrachloroethane	79-34-5	)	NC@˝	I)	10 µg/L	102	72	4""
EP074: 1.2.3-Trichloropropane	96-18-4	)	NC@˝	I)	10 µg/L	44!	);	148
EP074: Pentachloroethane	76-01-7	)	NC@˝	I)	10 µg/L	4!4	68	4"7
EP074: 1.2-Dibromo-3-chloropropane	96-12-8	)	NC@˝	I)	10 µg/L	74.7	52	4)!
EP074: Hexachlorobutadiene	87-68-3	)	NC@˝	I)	10 µg/L	106	62	142
EP074F: Halogenated Aromatic Compounds (QCLot: 1002578)								
EP074: Chlorobenzene	4!7+;!+5	)	NC@˝	I)	10 µg/L	;".5	55	120
EP074: Bromobenzene	108-86-1	)	NC@˝	I)	10 µg/L	4!!	76	122
EP074: 2-Chlorotoluene	95-49-8	)	NC@˝	I)	10 µg/L	99.2	5)."	124
EP074: 4-Chlorotoluene	106-43-4	)	NC@˝	I)	10 µg/L	;).7	76	120
EP074: 1.3-Dichlorobenzene	541-73-1	)	NC@˝	I)	10 µg/L	;5.!	75.2	120
EP074: 1.4-Dichlorobenzene	106-46-7	)	NC@˝	I)	10 µg/L	;).;	76.1	44;
EP074: 1.2-Dichlorobenzene	;)+)!+4	)	NC@˝	I)	10 µg/L	92.6	55.5	447
EP074: 1.2.4-Trichlorobenzene	120-82-1	)	NC@˝	I)	10 µg/L	;".4	68.3	128
EP074: 1.2.3-Trichlorobenzene	87-61-6	)	NC@˝	I)	10 µg/L	88.2	5)	125
EP074G: Trihalomethanes (QCLot: 1002578)								
EP074: Chloroform	67-66-3	)	NC@˝	I)	10 µg/L	;5.;	54.4	127
EP074: Bromodichloromethane	75-27-4	)	NC@˝	I)	10 µg/L	96.9	68	132
EP074: Dibromochloromethane	124-48-1	)	NC@˝	I)	10 µg/L	;).;	69	4"!
EP074: Bromoform	75-25-2	)	NC@˝	I)	10 µg/L	94.7	62	4"5
EP074H: Naphthalene (QCLot: 1002578)								
EP074: Naphthalene	91-20-3	5	NC@˝	I5	10 µg/L	;4.5	7".4	44;
EP075(SIM)A: Phenolic Compounds (QCLot: 1003086)								

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 1003086) - continued								
EP075(SIM): Phenol	108-95-2	4	NC@˝	I4.!	5 µg/L	31.6	24	5!
EP075(SIM): 2-Chlorophenol	;)+)5+7	4	NC@˝	I4.!	5 µg/L	66.2	)5	4!)
EP075(SIM): 2-Methylphenol	95-48-7	4	NC@˝	I4.!	5 µg/L	);.!	)4	96
EP075(SIM): 3- & 4-Methylphenol	4"4;+55+"	2	NC@˝	<2.0	10 µg/L	60.5	45	94
EP075(SIM): 2-Nitrophenol	77+5)+)	4	NC@˝	I4.!	5 µg/L	76.6	48	132
EP075(SIM): 2.4-Dimethylphenol	105-67-9	4	NC@˝	I4.!	5 µg/L	62.2	44	112
EP075(SIM): 2.4-Dichlorophenol	120-83-2	4	NC@˝	I4.!	5 µg/L	5".7	60	114
EP075(SIM): 2.6-Dichlorophenol	87-65-0	4	NC@˝	I4.!	5 µg/L	72.3	);	44)
EP075(SIM): 4-Chloro-3-Methylphenol	);+)!+5	4	NC@˝	I4.!	5 µg/L	72.2	60	445
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	4	NC@˝	I4.!	5 µg/L	74.5	);	123
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	4	NC@˝	I4.!	5 µg/L	65.4	);	123
EP075(SIM): Pentachlorophenol	87-86-5	2	NC@˝	<2.0	10 µg/L	76.4	22.1	4"!
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1003086)								
EP075(SIM): Naphthalene	91-20-3	4	NC@˝	I4.!	5 µg/L	60.1	46	444
EP075(SIM): Acenaphthylene	208-96-8	4	NC@˝	I4.!	5 µg/L	67.3	)4	114
EP075(SIM): Acenaphthene	83-32-9	4	NC@˝	I4.!	5 µg/L	60.6	)!	114
EP075(SIM): Fluorene	86-73-7	4	NC@˝	I4.!	5 µg/L	64.1	))	447
EP075(SIM): Phenanthrene	7)+!4+7	4	NC@˝	I4.!	5 µg/L	72.4	54	44!
EP075(SIM): Anthracene	120-12-7	4	NC@˝	I4.!	5 µg/L	5!.7	49	445
EP075(SIM): Fluoranthene	206-44-0	4	NC@˝	I4.!	5 µg/L	54.7	)4	445
EP075(SIM): Pyrene	129-00-0	4	NC@˝	I4.!	5 µg/L	5!.7	)4	445
EP075(SIM): Benz(a)anthracene	56-55-3	4	NC@˝	I4.!	5 µg/L	75.4	)"	120
EP075(SIM): Chrysene	218-01-9	4	NC@˝	I4.!	5 µg/L	69.0	48	114
EP075(SIM): Benzo(b)fluoranthene	205-99-2	4	NC@˝	I4.!	5 µg/L	55.4	48	4"!
EP075(SIM): Benzo(k)fluoranthene	207-08-9	4	NC@˝	I4.!	5 µg/L	65.8	43	126
EP075(SIM): Benzo(a)pyrene	50-32-8	!.)	NC@˝	I!.)	5 µg/L	60.7	44	120
EP075(SIM): Indeno(1.2.3.cd)pyrene	4;"+";+)	4	NC@˝	I4.!	5 µg/L	65.8	45	129
EP075(SIM): Dibenz(a.h)anthracene	)"+5!+"	4	NC@˝	I4.!	5 µg/L	63.0	47	4"4
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	4	NC@˝	I4.!	5 µg/L	62.8	42	126
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1002577)								
EP080: C6 - C9 Fraction	++++	20	NC@˝	<20	160 µg/L	;"."	5"	4")
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1003085)								
EP071: C10 - C14 Fraction	++++	)!	NC@˝	I)!	600 µg/L	)7.5	49	44!
EP071: C15 - C28 Fraction	++++	4!!	NC@˝	I4!!	1020 µg/L	68.2	)7	4"!
EP071: C29 - C36 Fraction	++++	)!	NC@˝	I)!	++++	++++	++++	++++
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1006015)								
EP071-HX: C10 - C14 Fraction	++++	)!	NC@˝	I)!	798 µg/L	68.9	64	124
EP071-HX: C15 - C28 Fraction	++++	4!!	NC@˝	I4!!	804 µg/L	73.4	5!	4"!
EP071-HX: C29 - C36 Fraction	++++	)!	NC@˝	I)!	800 µg/L	72.5	68	128

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080: BTEX (QCLot: 1002577)								
EP080: Benzene	71-43-2	4	NC@˝	I4	10 µg/L	;!.!	77.6	122
EP080: Toluene	4!7+77+"	2	NC@˝	<2	10 µg/L	92.0	74	122
EP080: Ethylbenzene	100-41-4	2	NC@˝	<2	10 µg/L	90.4	5"	126
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	NC@˝	<2	20 µg/L	90.6	70.4	129
EP080: ortho-Xylene	95-47-6	2	NC@˝	<2	10 µg/L	91.4	74.3	126

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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	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 1002635)							
EB0908954-001	Anonymous	EG020A-F: Arsenic	7440-38-2	0.100 mg/L	4!7	5!	4"!
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	4!;	5!	4"!
		EG020A-F: Chromium	7440-47-3	0.100 mg/L	106	5!	4"!
		EG020A-F: Copper	7440-50-8	0.2 mg/L	106	5!	4"!
		EG020A-F: Lead	7439-92-1	0.100 mg/L	4!5	5!	4"!
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	4!7	5!	4"!
		EG020A-F: Zinc	7440-66-6	0.2 mg/L	123	5!	4"!
EG020F: Dissolved Metals by ICP-MS (QCLot: 1003848)							
EB0908929-015	Anonymous	EG020A-F: Arsenic	7440-38-2	0.100 mg/L	102	5!	4"!
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	;7.!	5!	4"!
		EG020A-F: Chromium	7440-47-3	0.100 mg/L	98.6	5!	4"!
		EG020A-F: Copper	7440-50-8	.2 mg/L	94.0	5!	4"!
		EG020A-F: Lead	7439-92-1	0.100 mg/L	96.5	5!	4"!
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	;".5	5!	4"!
		EG020A-F: Zinc	7440-66-6	.2 mg/L	106	5!	4"!
EG035F: Dissolved Mercury by FIMS (QCLot: 1002634)							
EB0908954-001	Anonymous	EG035F: Mercury	7439-97-6	0.010 mg/L	98.6	5!	4"!
EG035F: Dissolved Mercury by FIMS (QCLot: 1003846)							
EB0908926-002	Anonymous	EG035F: Mercury	7439-97-6	0.010 mg/L	5;.5	5!	4"!
EG035F: Dissolved Mercury by FIMS (QCLot: 1003849)							
EB0908932-003	:G!"	EG035F: Mercury	7439-97-6	0.010 mg/L	# 65.6	5!	4"!
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1002596)							
EB0908818-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.4 mg/L	# Not Determined	5!	4"!
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003437)							
EB0908859-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.8 mg/L	4!"	5!	4"!
EK055G: Ammonia as N by Discrete Analyser (QCLot: 1003439)							
EB0908932-004	MW04	EK055G: Ammonia as N	7664-41-7	0.4 mg/L	# Not Determined	5!	4"!
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1002578)							
EB0908932-004	MW04	EP074: Benzene	71-43-2	10 µg/L	4!7	5!	4"!
		EP074: Toluene	4!7+77+"	10 µg/L	4!4	5!	4"!
EP074E: Halogenated Aliphatic Compounds (QCLot: 1002578)							
EB0908932-004	MW04	EP074: 1.1-Dichloroethene	75-35-4	10 µg/L	128	5!	4"!
		EP074: Trichloroethene	79-01-6	10 µg/L	4!"	5!	4"!

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Spike Recovery (%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EP074F: Halogenated Aromatic Compounds (QCLot: 1002578)							
EB0908932-004	MW04	EP074: Chlorobenzene	4!7+;!+5	10 µg/L	106	5!	4"!
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1002577)							
EB0908932-004	MW04	EP080: C6 - C9 Fraction	++++	140 µg/L	;4."	5!	4"!
EP080: BTEX (QCLot: 1002577)							
EB0908932-004	MW04	EP080: Benzene	71-43-2	10 µg/L	4!5	5!	4"!
		EP080: Toluene	4!7+77+"	10 µg/L	4!"	5!	4"!

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

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Work Order	: **EB0908932**	PaCe	: 4 '& 40
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOX 246 SPRING HILL . LD/ AUSTRALIA 4004	Address	: 32 Shand Street Stafford . LD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: 0000	. C Level	: NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Site	: Cronulla Park		
C-O-C number	: 0000	Date Samples Received	: 03-JUN-2009
Sampler	: 0000	Issue Date	: 12-JUN-2009
Order number	: 0000	No. of samples received	: 6(
. uote number	: EN/003/09	No. of samples analysed	: 6(

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive . uality Control Report contains the following information:

- Analysis Holding Time Compliance
- . uality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford . LD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

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Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples/ sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 9() / ^%°^ / AS and NEPM <6;;;). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes/ the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS								
Clear Plastic Bottle - Filtered; Lab-acidified								
MW01/	MW02/	**02-JUN-2009**	---	000	0000	**10-JUN-2009**	29-NOV-2009	✓
MW03/	MW04/							
MW05/	MW06/							
MW08/	MW09/							
DUP05/	MWA (CR13)/							
MWB (CR14)/	MWC (CR15)/							
Drain								
Clear Plastic Bottle - Sulphuric Acid								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	03-JUN-2009	×
EG035F: Dissolved Mercury by FIMS								
Clear Plastic Bottle - Filtered; Lab-acidified								
MW01/	MW02/	**02-JUN-2009**	---	000	0000	**10-JUN-2009**	30-JUN-2009	✓
MW03/	MW04/							
MW05/	MW06/							
MW08/	MW09/							
DUP05/	MWA (CR13)/							
MWB (CR14)/	MWC (CR15)/							
Drain								
Clear Plastic Bottle - Sulphuric Acid								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EK055G: Ammonia as N by Discrete Analyser								
Amber Glass Bottle - Unpreserved								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	03-JUN-2009	×
Clear Plastic Bottle - Sulphuric Acid								
MW01/	MW02/	**02-JUN-2009**	---	000	0000	**09-JUN-2009**	30-JUN-2009	✓
MW03/	MW04/							
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP070: Total Petroleum Hydrocarbons - Speciation								
Amber Glass Bottle - Unpreserved								
MW04/	MW05	**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**12-JUN-2009**	21-JUL-2009	✓
Amber Glass Bottle - Unpreserved								
MW06		**02-JUN-2009**	**11-JUN-2009**	09-JUN-2009	×	**12-JUN-2009**	21-JUL-2009	✓
Amber VOC Vial - HCl or NaHSO4								
MW07		**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**12-JUN-2009**	21-JUL-2009	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP074B: Oxygenated Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP074C: Sulfonated Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP074D: Fumigants								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074E: Halogenated Aliphatic Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP074F: Halogenated Aromatic Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP074G: Trihalomethanes								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP074H: Naphthalene								
Amber VOC Vial - HCl or NaHSO4								
MW03/	MW04/	**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
MW05/	MW06/							
MW08/	MW09/							
MWA (CR13)/	Drain							
Clear Plastic Bottle - Filtered; Lab-acidified								
MW07		**02-JUN-2009**	---	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP075(SIM)A: Phenolic Compounds								
Amber Glass Bottle - Unpreserved								
MW03/	MW04/	**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**10-JUN-2009**	19-JUL-2009	✓
MW05/	MW06/							
MW07/	MW08/							
MW09/	MWA (CR13)/							
Drain								

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW03/ MW04/ MW05/ MW06/ MW07/ MW08/ MW09/ MWA (CR13)/ Drain	**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**10-JUN-2009**	19-JUL-2009	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW01/ MW02/ MW03/ MW08/ MW09/ DUP05/ MWA (CR13)/ MWB (CR14)/ MWC (CR15)/ Drain	**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**10-JUN-2009**	19-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
MW04/ MW05	**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**12-JUN-2009**	21-JUL-2009	✓
Amber Glass Bottle - Unpreserved							
MW06	**02-JUN-2009**	**11-JUN-2009**	09-JUN-2009	×	**12-JUN-2009**	21-JUL-2009	✓
Amber VOC Vial - HCl or NaHSO4							
MW01/ MW02/ MW03/ MW04/ MW05/ MW06/ MW08/ MW09/ DUP05/ MWA (CR13)/ MWB (CR14)/ MWC (CR15)/ Drain	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
Amber VOC Vial - HCl or NaHSO4							
MW07	**02-JUN-2009**	**09-JUN-2009**	09-JUN-2009	✓	**12-JUN-2009**	21-JUL-2009	✓
Clear Plastic Bottle - Filtered; Lab-acidified							
MW07	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4							
MW01/ MW02/ DUP05/ MWB (CR14)/ MWC (CR15)	**02-JUN-2009**	**---**	000	0000	**09-JUN-2009**	16-JUN-2009	✓

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Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory . C samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = . ualit Control fre>uenc not within s4ecification E✓ = . ualit Control fre>uenc within s4ecification.

. uality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	)	/ 6	**11.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Dissolved Mercury by FIMS	EG035F	)	/ '	**11.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	(	+ (	**11.8**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH Volatiles/BTEX	EP080	'	6 /	**13.3**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Volatile Organic Compounds	EP074	'	6 /	**13.3**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	+	/ 6	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Dissolved Mercury by FIMS	EG035F	+	/ '	**5.8**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	'	+ (	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	6	66	**9.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH - Semivolatile Fraction	EP071	6	6(	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH - Semivolatile Fraction	EP071-HX	6	+	**33.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH - Speciation	EP070	6	+	**33.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH Volatiles/BTEX	EP080	6	6/	**6.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Volatile Organic Compounds	EP074	6	6/	**6.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	+	/ 6	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Dissolved Mercury by FIMS	EG035F	+	/ '	**5.8**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	'	+ (	**5.9**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	6	66	**9.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH - Semivolatile Fraction	EP071	6	6(	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH - Semivolatile Fraction	EP071-HX	6	+	**33.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH - Speciation	EP070	6	+	**33.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
TPH Volatiles/BTEX	EP080	6	6/	**6.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Volatile Organic Compounds	EP074	6	6/	**6.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	+	/ 6	**5.9**	**5.0**	✓	ALS . CS3 requirement
Dissolved Mercury by FIMS	EG035F	+	/ '	**5.8**	**5.0**	✓	ALS . CS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	'	+ (	**5.9**	**5.0**	✓	ALS . CS3 requirement
TPH Volatiles/BTEX	EP080	6	6/	**6.7**	**5.0**	✓	ALS . CS3 requirement
Volatile Organic Compounds	EP074	6	6/	**6.7**	**5.0**	✓	ALS . CS3 requirement

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Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA/ APHA/ AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	(APHA 21st ed./ 3125; USEPA SW846 - 6020/ ALS . WI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer/ which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	AS 3550/ APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. . uantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Ammonia as N by Discrete analyser	EK055G	WATER	APHA 21st ed./ 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Speciation	EP070	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071-HX	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
PAH/Phenols (GC/MS - SIM)	EP075<SIM=	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	#¨¸6(	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined/ dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.

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Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	#˙,6(0°&	WATER	Variation of USEPA SW 846 - 3510B: 500 mL to 0.5L of sample is transferred to a separatory funnel and serially extracted three times using 30mL DCM for each extract. The resultant extracts are combined/ dehydrated/ and exchanged into 5 mL of hexane for analysis. ALS default excludes sediment which may be resident in the container.

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Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the . uality Control ≺ C) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-. WI/EN/38 (in the absence of specific USEPA limits). This report displays . C Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG020F: Dissolved Metals by ICP-MS	EB0908954-010	Anonymous	**Copper**	7440-50-8	113 %	0-20%	**RPD exceeds LOR based limits**
Matrix Spike (MS) Recoveries							
EG035F: Dissolved Mercury by FIMS	EB0908932-003	MW03	**Mercury**	7(+;0;70)	65.6 %	70-130%	**Recovery less than lower data quality objective**
EK055G: Ammonia as N by Discrete Analyser	EB0908932-004	MW04	**Ammonia as N**	7))(0(607	Not Determined	0000	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK055G: Ammonia as N by Discrete Analyser	EB0908818-002	Anonymous	**Ammonia as N**	7))(0(607	Not Determined	0000	**MS recovery not determined, background level greater than or equal to 4x spike level.**

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Laboratory Control outliers occur.**

Regular Sample Surrogates

Sub-Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP070S:TPH Surrogates - Speciation	EB0908932-005	MW05	**2-Bromonaphthalene**	580-13-2	56.9 %	60-140 %	**Recovery less than lower data quality objective**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

Matrix: **WATER**

Method / Container / Client Sample ID(s)	*Extraction / Preparation*			*Analysis*		
	Date extracted	*Due for extraction*	***Days overdue***	*Date analysed*	*Due for analysis*	***Days overdue***
EG020F: Dissolved Metals by ICP-MS						
Clear Plastic Bottle - Sulphuric Acid						
MW07	0000	0000	0000	09-JUN-2009	03-JUN-2009	**6**
EK055G: Ammonia as N by Discrete Analyser						
Amber Glass Bottle - Unpreserved						
MW07	0000	0000	0000	09-JUN-2009	03-JUN-2009	**6**

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Matrix: **WATER**

Method / Container / Client Sample ID(s)	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Days overdue	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Days overdue
EP070: Total Petroleum Hydrocarbons - Speciation						
Amber Glass Bottle - Unpreserved						
MW06	11-JUN-2009	09-JUN-2009	**2**	0000	0000	0000
EP080/071: Total Petroleum Hydrocarbons						
Amber Glass Bottle - Unpreserved						
MW06	11-JUN-2009	09-JUN-2009	**2**	0000	0000	0000

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of . uality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

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DL Documents

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **EB0908932**		
8!"˜^	$ **SINCLAIR KNIGHT MERZ**	La,°` a^°`@	$ Environmental Division Brisba˜˝
8°˜^ a*^	$ MS ONA KANAS	8°˜^ a*^	$ Tim Kilmister
Address	: P O BOX 246 SPRING HILL QLD, A, STRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: ++++	Page	: 4 '& "
Order number	: ++++		
C-O-C number	: ++++	Quote number	: ES2009SINKNI0322 (EN/003/09)
Site	: Cronulla Park		
Sampler	: ++++	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: !"+@ N-2009	Issue Date	: !)+@ N-2009 15:59
Client Requested Due Date	: 12-J, N-2009	Scheduled Reporting Date	: **12-JUN-2009**

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 1.2 C, 7.8 C - Ice present
No. of coolers/boxes	: 2 MEDI, M	No. of samples received	: 14
Sercurity Seal	: Intact.	No. of samples analysed	: 14

General Comments

- This report contains the following information:
  - + Sample Container(s)/Preservation Non-Compliances
  - + Summary of Sample(s) and Requested Analysis
  - + Requested Deliverables
- **Sample containers do not comply to pretreatment / preservation standards (AS, APHA, USEPA). Please refer to the Sample Container(s)/Preservation Non-Compliance Log at the end of this report for details.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Sample DUP05a was not received.**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / breakages to Maggie Kahi.
- Analytical work for this work order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.

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Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, , SEPA standards.

Method Client sample ID	Sample Container Received	Preferred Sample Container for Analysis
EG020A-F : Dissolved Metals by ICP-MS - Suite A		
MW07	- Clear Plastic Bottle - Sulphuric Acid	- Clear Plastic Bottle - Nitric Acid; Filtered
EG035F : Dissolved Mercury by FIMS		
MW07	- Clear Plastic Bottle - Sulphuric Acid	- Clear Plastic Bottle - Nitric Acid; Filtered
EK055G : Ammonia as N by Discrete analyser		
MW07	- Amber Glass Bottle - , npreserved	- Clear Plastic Bottle - Sulphuric Acid
EP070 : TPH - Speciation		
MW07	- Amber VOC Vial - HCl or NaHSO4	- Amber Glass Bottle - , npreserved
EP071-HX : TPH - Semivolatile Fraction		
MW07	- Amber VOC Vial - HCl or NaHSO4	- Amber Glass Bottle - , npreserved
EP074 : Volatile Organic Compounds		
MW07	- Clear Plastic Bottle - Filtered; Lab-acidified	- Amber VOC Vial - HCl or NaHSO4
EP080 : TPH Volatiles/BTEX		
MW07	- Clear Plastic Bottle - Filtered; Lab-acidified	- Amber VOC Vial - HCl or NaHSO4

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratorA process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such $ the determination of moisture content and preparation tasks, that are included in the package.
E hen date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	E ATER - EK055G Ammonia as N By Discrete Analyser	E ATER - EP070 (E ater) TPH Speciation - Aliphatic & Aromatic ˝ Adrocarbons C10-C35	E ATER - EP071(V - TPH-E ˜> TPH Volatiles	E ATER - EP071-HX Total Petroleum Hydrocarbons (TPH)	E ATER - EP074 (water) Volatile Organic Compounds	E ATER - EP075 SIM Phenols only SIM - Phenols only	E ATER - E -02 8 Metals	E ATER - E +!) TPH/BTEX/8 Metals
EB0908932-001	02-J, N-2009 15:00	ME !4	✓							✓
EB0908932-002	02-J, N-2009 15:00	ME 02	✓							✓
EB0908932-003	02-J, N-2009 15:00	ME !"	✓					✓	✓	
EB0908932-004	02-J, N-2009 15:00	ME 04	✓	✓	✓	✓	✓		✓	
EB0908932-005	02-J, N-2009 15:00	ME !)	✓	✓	✓	✓	✓		✓	
EB0908932-006	02-J, N-2009 15:00	ME !˝	✓	✓	✓	✓	✓		✓	
EB0908932-007	02-J, N-2009 15:00	ME !5	✓	✓	✓	✓	✓		✓	
EB0908932-008	02-J, N-2009 15:00	ME !7	✓					✓	✓	
EB0908932-009	02-J, N-2009 15:00	ME !;	✓					✓	✓	
EB0908932-010	02-J, N-2009 15:00	˜ , P05								✓
EB0908932-011	02-J, N-2009 15:00	ME A (CR13)	✓					✓	✓	
EB0908932-012	02-J, N-2009 15:00	ME B (CR14)								✓
EB0908932-013	02-J, N-2009 15:00	ME C (CR15)								✓
EB0908932-014	02-J, N-2009 15:00	Drain	✓					✓	✓	

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Matrix: **WATER**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	E ATER - E +4! TPH/VOC/PAH	E ATER - E -14A PAH/Phenols (SIM)
EB0908932-003	02-J, N-2009 15:00	ME !"	✓	
EB0908932-004	02-J, N-2009 15:00	ME 04		✓
EB0908932-005	02-J, N-2009 15:00	ME !)		✓
EB0908932-006	02-J, N-2009 15:00	ME !˜		✓
EB0908932-007	02-J, N-2009 15:00	ME !5		✓
EB0908932-008	02-J, N-2009 15:00	ME !7	✓	
EB0908932-009	02-J, N-2009 15:00	ME !;	✓	
EB0908932-011	02-J, N-2009 15:00	ME A (CR13)	✓	
EB0908932-014	02-J, N-2009 15:00	Drain	✓	

Requested Deliverables

ACCOUNTS PAYABLE

+ A4 - A, Tax Invoice (INV)	Email	E AAccounts@skm.com.au

MR JEREMY WICKS

+ *A, Certificate of Analysis - NATA (COA)	Email	jwicks@skm.com.au
+ *A, Interpretive QC Report - DEFA, LT (Anon QCI Rep) (QCI)	Email	jwicks@skm.com.au
+ *A, QC Report - DEFA, LT (Anon QC Rep) - NATA (QC)	Email	jwicks@skm.com.au
+ A4 - A, Sample Receipt Notification - Environmental (SRN)	Email	jwicks@skm.com.au
+ Default - Chain of Custody (COC)	Email	jwicks@skm.com.au
+ EDI Format - ENMRG (ENMRG)	Email	jwicks@skm.com.au
+ EDI Format - ESDAT (ESDAT)	Email	jwicks@skm.com.au
+ EDI Format - XTab (XTAB)	Email	jwicks@skm.com.au

MS ONA KANAS

+ *A, Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
+ *A, Interpretive QC Report - DEFA, LT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
+ *A, QC Report - DEFA, LT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
+ A4 - A, Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
+ Default - Chain of Custody (COC)	Email	okanas@skm.com.au
+ EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
+ EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
+ EDI Format - XTab (XTAB)	Email	okanas@skm.com.au

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

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Work Order	: **EB0909112**	Page	: 1 of 6
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: MS "#$ %$#$¸	Contact	: Tim %lmister
$ddress	: P " BOX 246 SP*+# G -+LL . LD/ $#¸° *$ L+$400!	$ddress	: 32 Shand Street Stafford . LD $ustralia 40'$
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537 Greyhound . ld Ltd	. C Level	: NEPM 1999 Schedule B(3) and $LS . CS3 requirement
" rder number	: ((((		
C-" -C number	: ((((	Date Samples * eceived	: 09(4## -2009
Sampler	: " -%$#$¸	*ssue Date	: 16-JU# -2009
Site	: ((((		
		#o. of samples received	: 1
. uote number	: EN500$509	#o. of samples analysed	: 1

This report supersedes any previous report(s) with this reference. * esults apply to the sample(s) as submitted. $ll pages of this report have been checked and approved for release.

This Certificate of $nalysis contains the following information:

- General Comments
- $nalytical * esults
- Surrogate Control Limits

#$ ° $ $ccredited Laboratory 825

This document is issued in accordance with #$ ° $ accreditation requirements.

$ccredited for compliance with +¸ " 5EC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CF* Part 11.

Signatories	*Position*	*Accreditation Category*
Sarah $shworth	" rganic Chemist	" rganics
Stephen - islop	Senior +norganic Chemist	+norganics

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford . LD $ustralia 40'$
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the U¸ EP$/ $P-$ / $S and NEPM. +n house developed procedures are employed in the absence of documented standards or by 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 L"*/ this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the L"* of a reported result differs from standard L"*/ this may be due to high moisture content/ insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed/ these have been assumed by the laboratory for processing purposes. -f the sampling time is displayed as 0:00 the information was not provided by client.

%ey : C$S #umber = C$S registry number from database maintained by Chemical $bstracts Services. The Chemical $bstracts Service is a division of the $merican Chemical Society.
L"* = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting

- **Volatile TPH/BTEX: Poor matrix spike recovery due to matrix interference. Confirmed by re-analysis.**

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Drain 1	((((	((((	((((	((((
				Client sampling date / time: 09(4##-2009 15:00	((((	((((	((((	((((
				EB0909112-001	----	----	----	----
EG020T: Total Metals by ICP-MS								
Arsenic	.!! 0-38-2	0+001	mg/L	**0.001**	((((	((((	((((	((((
Cadmium	.!! 0(!$(9	0+0001	mg/L	**0.0003**	((((	((((	((((	((((
Chromium	.!! 0(!.($	0+001	mg/L	**0.007**	((((	((((	((((	((((
Copper	.!! 0(' 0(/	0+001	mg/L	**0.002**	((((	((((	((((	((((
Lead	.!$ 9(92-1	0+001	mg/L	**0.001**	((((	((((	((((	((((
Nickel	.!! 0(02-0	0+001	mg/L	**0.005**	((((	((((	((((	((((
Zinc	.!! 0-66-6	0+0'	mg/L	**0.097**	((((	((((	((((	((((
EG035T: Total Recoverable Mercury by FIMS								
Mercury	.!$ 9(97-6	0+0001	mg/L	; 0+0001	((((	((((	((((	((((
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	'	Jg/L	;'	((((	((((	((((	((((
Toluene	10/(//($	'	Jg/L	;'	((((	((((	((((	((((
Ethylbenzene	100-41-4	'	Jg/L	;'	((((	((((	((((	((((
meta- & para-Xylene	108-38-3 106-42-3	'	Jg/L	;'	((((	((((	((((	((((
Styrene	100-42-5	'	Jg/L	;'	((((	((((	((((	((((
ortho-Xylene	95-47-6	'	Jg/L	;'	((((	((((	((((	((((
Isopropylbenzene	98-82-8	'	Jg/L	;'	((((	((((	((((	((((
n-Propylbenzene	103-65-1	'	Jg/L	;'	((((	((((	((((	((((
1.3.5-Trimethylbenzene	108-67-8	'	Jg/L	;'	((((	((((	((((	((((
sec-Butylbenzene	135-9/(/	'	Jg/L	;'	((((	((((	((((	((((
1.2.4-Trimethylbenzene	95-63-6	'	Jg/L	;'	((((	((((	((((	((((
tert-Butylbenzene	9/(06-6	'	Jg/L	;'	((((	((((	((((	((((
p-Isopropyltoluene	99-87-6	'	Jg/L	;'	((((	((((	((((	((((
n-Butylbenzene	104-51-8	'	Jg/L	;'	((((	((((	((((	((((
EP074B: Oxygenated Compounds								
Vinyl Acetate	10/(0'(!	' 0	Jg/L	;' 0	((((	((((	((((	((((
2-Butanone (MEK)	./(9$($	' 0	Jg/L	;' 0	((((	((((	((((	((((
4-Methyl-2-pentanone (MIBK)	108-10-1	' 0	Jg/L	;' 0	((((	((((	((((	((((
2-Hexanone (MBK)	' 91-78-6	' 0	Jg/L	;' 0	((((	((((	((((	((((
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	'	Jg/L	;'	((((	((((	((((	((((
EP074D: Fumigants								
2.2-Dichloropropane	' 94-20(.	'	Jg/L	;'	((((	((((	((((	((((
1.2-Dichloropropane	./(/.('	'	Jg/L	;'	((((	((((	((((	((((
cis-1.3-Dichloropropylene	10061-01-5	'	Jg/L	;'	((((	((((	((((	((((
trans-1.3-Dichloropropylene	10061-02-6	'	Jg/L	;'	((((	((((	((((	((((
1.2-Dibromoethane (EDB)	106-9$(!	'	Jg/L	;'	((((	((((	((((	((((

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Drain 1	((((	((((	((((	((((
				Client sampling date / time: 09(4##-2009 15:00	((((	((((	((((	((((
				EB0909112-001	----	----	----	----
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	' 0	Jg/L	;' 0	((((	((((	((((	((((
Chloromethane	.!(/.($	' 0	Jg/L	;' 0	((((	((((	((((	((((
Vinyl chloride	.'(01-4	' 0	Jg/L	;' 0	((((	((((	((((	((((
Bromomethane	.!(/$(9	' 0	Jg/L	;' 0	((((	((((	((((	((((
Chloroethane	.'(00($	' 0	Jg/L	;' 0	((((	((((	((((	((((
Trichlorofluoromethane	75-69(!	' 0	Jg/L	;' 0	((((	((((	((((	((((
1.1-Dichloroethene	.'($'(!	'	Jg/L	;'	((((	((((	((((	((((
Iodomethane	.!(//(!	'	Jg/L	;'	((((	((((	((((	((((
trans-1.2-Dichloroethene	156-60('	'	Jg/L	;'	((((	((((	((((	((((
1.1-Dichloroethane	.'($!($	'	Jg/L	;'	((((	((((	((((	((((
cis-1.2-Dichloroethene	156-59-2	'	Jg/L	;'	((((	((((	((((	((((
1.1.1-Trichloroethane	71-55-6	'	Jg/L	;'	((((	((((	((((	((((
1.1-Dichloropropylene	563-58-6	'	Jg/L	;'	((((	((((	((((	((((
Carbon Tetrachloride	56-23-5	'	Jg/L	;'	((((	((((	((((	((((
1.2-Dichloroethane	10.(06-2	'	Jg/L	;'	((((	((((	((((	((((
Trichloroethene	. 9(01-6	'	Jg/L	;'	((((	((((	((((	((((
Dibromomethane	.!(9'($	'	Jg/L	;'	((((	((((	((((	((((
1.1.2-Trichloroethane	. 9(00('	'	Jg/L	;'	((((	((((	((((	((((
1.3-Dichloropropane	142-28-9	'	Jg/L	;'	((((	((((	((((	((((
Tetrachloroethene	127-18-4	'	Jg/L	;'	((((	((((	((((	((((
1.1.1.2-Tetrachloroethane	630-20-6	'	Jg/L	;'	((((	((((	((((	((((
trans-1.4-Dichloro-2-butene	110-57-6	'	Jg/L	;'	((((	((((	((((	((((
cis-1.4-Dichloro-2-butene	1476-11-5	'	Jg/L	;'	((((	((((	((((	((((
1.1.2.2-Tetrachloroethane	. 9($!('	'	Jg/L	;'	((((	((((	((((	((((
1.2.3-Trichloropropane	96-18-4	'	Jg/L	;'	((((	((((	((((	((((
Pentachloroethane	76-01-7	'	Jg/L	;'	((((	((((	((((	((((
1.2-Dibromo-3-chloropropane	96-12-8	'	Jg/L	;'	((((	((((	((((	((((
Hexachlorobutadiene	87-68-3	'	Jg/L	;'	((((	((((	((((	((((
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	10/(90(.	'	Jg/L	;'	((((	((((	((((	((((
Bromobenzene	108-86-1	'	Jg/L	;'	((((	((((	((((	((((
2-Chlorotoluene	9'(! 9(/	'	Jg/L	;'	((((	((((	((((	((((
4-Chlorotoluene	106-43-4	'	Jg/L	;'	((((	((((	((((	((((
1.3-Dichlorobenzene	541-73-1	'	Jg/L	;'	((((	((((	((((	((((
1.4-Dichlorobenzene	106-46-7	'	Jg/L	;'	((((	((((	((((	((((
1.2-Dichlorobenzene	9'(' 0-1	'	Jg/L	;'	((((	((((	((((	((((
1.2.4-Trichlorobenzene	120-82-1	'	Jg/L	;'	((((	((((	((((	((((
1.2.3-Trichlorobenzene	87-61-6	'	Jg/L	;'	((((	((((	((((	((((

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Analytical Results

Sub-Matrix: **WATER**

	Client sample ID	Drain 1	((((	((((	((((	((((
	Client sampling date / time	09(4##-2009 15:00	((((	((((	((((	((((
Compound / *CAS Number* / *LOR* / *Unit*		**EB0909112-001**	----	----	----	----
EP074G: Trihalomethanes						
Chloroform	67-66-3 ' Jg/L	;'	((((	((((	((((	((((
Bromodichloromethane	75-27-4 ' Jg/L	;'	((((	((((	((((	((((
Dibromochloromethane	124-48-1 ' Jg/L	;'	((((	((((	((((	((((
Bromoform	75-25-2 ' Jg/L	;'	((((	((((	((((	((((
EP074H: Naphthalene						
Naphthalene	91-20($. Jg/L	;.	((((	((((	((((	((((
EP080/071: Total Petroleum Hydrocarbons						
C6 - C9 Fraction	((((20 Jg/L	<20	((((	((((	((((	((((
C10 - C14 Fraction	((((' 0 Jg/L	:' 0	((((	((((	((((	((((
C15 - C28 Fraction	((((100 Jg/L	**200**	((((	((((	((((	((((
C29 - C36 Fraction	((((' 0 Jg/L	**100**	((((	((((	((((	((((
EP080: BTEX						
Benzene	71-43-2 1 Jg/L	<1	((((	((((	((((	((((
Toluene	10/(//($ 2 Jg/L	<2	((((	((((	((((	((((
Ethylbenzene	100-41-4 2 Jg/L	<2	((((	((((	((((	((((
meta- & para-Xylene	108-38-3 106-42-3 2 Jg/L	<2	((((	((((	((((	((((
ortho-Xylene	95-47-6 2 Jg/L	<2	((((	((((	((((	((((
EP074S: VOC Surrogates						
1.2-Dichloroethane-D4	17060(0.(0 0.1 K	**102**	((((	((((	((((	((((
Toluene-D8	2037-26-5 0.1 K	**104**	((((	((((	((((	((((
4-Bromofluorobenzene	460(00(! 0.1 K	**96.7**	((((	((((	((((	((((
EP080S: TPH(V)/BTEX Surrogates						
1.2-Dichloroethane-D4	17060(0.(0 0.1 K	**94.0**	((((	((((	((((	((((
Toluene-D8	2037-26-5 0.1 K	**99.5**	((((	((((	((((	((((
4-Bromofluorobenzene	460(00(! 0.1 K	**96.1**	((((	((((	((((	((((

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Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060(0.(0	/ 0	120
Toluene-D8	2037-26-5	//	110
4-Bromofluorobenzene	460(00(!	86	115
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060(0.(0	/ 0	120
Toluene-D8	2037-26-5	//	110
4-Bromofluorobenzene	460(00(!	86	115

RTI DL RELEASE - EHP

DL Documents

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0909112**	P>B	: 6 of 66
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 S1and Street Stafford QLD A2stralia 4053
E-mail	: okanas@skm.com.a2	E-mail	: Services.Brisbane@alsenviro.com
Telep1one	: +61 07 3244 7100	Telep1one	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537 Grey1o2nd Qld Ltd	QC Level	: NEPM 1999 Sc1ed2le B(3) and ALS QCS3 req2irement
Site	: ////		
C-O-C n2mber	: ////	Date Samples Received	: +:/>*^/!++:
Sampler	: ˇ2˝ˆ^ˇ	Iss2e Date	: 5#/>*^/!++:
Order n2mber	: ////		
		No. of samples received	: 5
(2ote n2mber	: EN/003/09	No. of samples analysed	: 5

‘ 1is report s2persedes any previo2s report(s) wit1 t1is reference. Res2lts apply to t1e sample(s) as s2bmitted. All pages of t1is report 1ave been c1ecked and approved for release.

‘ 1is Q2ality Control Report contains t1e following information:

- Laboratory D2plicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Met1od Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

‘ 1is doc2ment is iss2ed in accordance wit1 NATA accreditation req2irements.

Accredited for compliance wit1 ISO/IEC 17025.

Signatories

‘ 1is doc2ment 1as been electronically signed by t1e a2t1orized signatories indicated below. Electronic signing 1as been carried o2t in compliance wit1 proced2res specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Sara1 As1wort1	Organic C1emist	Organics
Step1en Hislop	Senior Inorganic C1emist	Inorganics

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 S1and Street Stafford QLD A2stralia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

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General Comments

¸ 1e analytical proced2res 2sed by t1e Environmental Division 1ave been developed from establis1ed internationally recognized proced2res s2c1 as t1ose 32blis1ed by t1e USEPA, ˙˜˙ , AS and NEPM. In 1o2se developed proced2res are employed in t1e absence of doc2mented standards or by client req2est.

E 1ere moist2re determination 1as been performed, res2lts are reported on a dry weig1t basis.

E 1ere a reported less t1an (<) res2lt is 1ig1er t1an t1e LOR, t1is may be d2e to primary sample extract/digestate dil2tion and/or ins2ffient sample for analysis.

E 1ere t1e LOR of a reported res2lt differs from standard LOR, t1is may be d2e to 1ig1 moist2re content, ins2fficient sample (red2ced weig1t employed) or matrix interference.

Key : Anonymo2s = Refers to samples w1ic1 are not specifically part of t1is work order b2t formed part of t1e QC process lot
CAS N2mber = CAS registry n2mber from database maintained by C1emical Abstracts Services. T1e C1emical Abstracts Service is a division of t1e American C1emical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

RTI DL RELEASE - EHP

DL Documents

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Laboratory Duplicate (DUP) Report

¸ 1e =2ality control term Laboratory D2plicate refers to a randomly selected intralaboratory split. Laboratory °2plicates provide information regarding met1od precision and sample 1eterogeneity. ¸ 1e permitted ranges for t1e Relative Percent Deviation (RPD) of Laboratory D2plicates are specified in ALS Met1od (E% -EN/38 and are dependent on t1e magnit2de of res2lts in comparison to t1e level of reporting: Res2lt < 10 times LOR:- No Limit; Res2lt between 10 and 20 times LOR:- 0% - 50%; Res2lt > 20 times LOR:- 0% - 20%.

˘ 2b-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 (%)*
EG020T: Total Metals by ICP-MS (QC Lot: 1006390)									
EB0908843-002	Anonymo2s	EG020A-T: Cadmi2m	6""+/",/:	+2+++5	mg/L	G+2+++5	+2+++!	+2+	No Limit
		EG020A-T: Arsenic	6""+/,8/!	+2++5	mg/L	G+2++5	G+2++5	+2+	No Limit
		EG020A-T: C1romi2m	6""+/"6/,	+2++5	mg/L	G+2++5	G+2++5	+2+	No Limit
		EG020A-T: Copper	6""+/.+/8	+2++5	mg/L	G+2++5	G+2++5	+2+	No Limit
		EG020A-T: Lead	6",:/:!/5	+2++5	mg/L	G+2++5	G+2++5	+2+	No Limit
		EG020A-T: Nickel	6""+/+!/+	+2++5	mg/L	G+2++5	G+2++5	+2+	No Limit
		EG020A-T: Zinc	6""+/##/#	+2++.	mg/L	G+2++.	G+2++.	+2+	No Limit
EB0909085-001	Anonymo2s	EG020A-T: Cadmi2m	6""+/",/:	+2+++5	mg/L	+2++6!	+2++65	!2"	0% - 20%
		EG020A-T: Arsenic	6""+/,8/!	+2++5	mg/L	+2+".	+2+"5	:28	0% - 20%
		EG020A-T: C1romi2m	6""+/"6/,	+2++5	mg/L	+258"	+2568	,25	0% - 20%
		EG020A-T: Copper	6""+/.+/8	+2++5	mg/L	+2"#5	+2"6#	,2!	0% - 20%
		EG020A-T: Lead	6",:/:!/5	+2++5	mg/L	+2!5#	+2!55	!2,	0% - 20%
		EG020A-T: Nickel	6""+/+!/+	+2++5	mg/L	+2585	+256:	+2:	0% - 20%
		EG020A-T: Zinc	6""+/##/#	+2++.	mg/L	!2!6	!2,,	!2#	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1005964)									
EB0909083-006	Anonymo2s	EG035T: Merc2ry	6",:/:6/#	+2+++5	mg/L	G+2+++5	G+2+++5	+2+	No Limit
EB0909095-007	Anonymo2s	EG035T: Merc2ry	6",:/:6/#	+2+++5	mg/L	G+2+++5	G+2+++5	+2+	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Benzene	65/",/!	.	µg/L	G.	G.	+2+	No Limit
		EP074: Tol2ene	5+8/88/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: Et1ylbenzene	5++/"5/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: meta- & para-Xylene	108-38-3 5+#/"!/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: Styrene	5++/"!/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: ort1o-Xylene	:./"6/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: Isopropylbenzene	:8/8!/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: n-Propylbenzene	5+,/#./5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.3.5-Trimet1ylbenzene	5+8/#6/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: sec-B2tylbenzene	5,./:8/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.4-Trimet1ylbenzene	:./#,/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: tert-B2tylbenzene	:8/+#/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: p-Isopropyltol2ene	::/86/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: n-B2tylbenzene	5+"/.5/8	.	µg/L	G.	G.	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: Benzene	65/",/!	.	µg/L	G.	G.	+2+	No Limit
		EP074: Tol2ene	5+8/88/,	.	µg/L	G.	G.	+2+	No Limit

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DL Documents

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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 (%)*
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1004531) - continued									
EB0909114-014	Anonymo2s	EP074: Et1ylbenzene	5++/"5/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: meta- & para-Xylene	108-38-3 5+#/"!/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: Styrene	5++/"!/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: ort1o-Xylene	:./"6/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: Isopropylbenzene	:8/8!/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: n-Propylbenzene	5+,/#./5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.3.5-Trimet1ylbenzene	5+8/#6/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: sec-B2tylbenzene	5,./:8/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.4-Trimet1ylbenzene	:./#,/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: tert-B2tylbenzene	:8/+#/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: p-Isopropyltol2ene	::/86/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: n-B2tylbenzene	5+"/.5/8	.	µg/L	G.	G.	+2+	No Limit
EP074B: Oxygenated Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Pinyl Acetate	5+8/+./"	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: 2-B2tanone (MEK)	68/:,/,	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: 4-Met1yl-2-pentanone (MIBK)	5+8/5+/5	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: 2-Hexanone (MBK)	.:5/68/#	.+	µg/L	G.+	G.+	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: Pinyl Acetate	5+8/+./"	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: 2-B2tanone (MEK)	68/:,/,	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: 4-Met1yl-2-pentanone (MIBK)	5+8/5+/5	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: 2-Hexanone (MBK)	.:5/68/#	.+	µg/L	G.+	G.+	+2+	No Limit
EP074C: Sulfonated Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Carbon dis2lfide	6./5./+	.	µg/L	G.	G.	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: Carbon dis2lfide	6./5./+	.	µg/L	G.	G.	+2+	No Limit
EP074D: Fumigants (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: 2.2-Dic1loropropane	.:"/!+/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dic1loropropane	68/86/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: cis-1.3-Dic1loropropylene	5++#5/+5/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: trans-1.3-Dic1loropropylene	5++#5/+!/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dibromoet1ane (EDB)	5+#/:,/"	.	µg/L	G.	G.	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: 2.2-Dic1loropropane	.:"/!+/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dic1loropropane	68/86/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: cis-1.3-Dic1loropropylene	5++#5/+5/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: trans-1.3-Dic1loropropylene	5++#5/+!/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dibromoet1ane (EDB)	5+#/:,/"	.	µg/L	G.	G.	+2+	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: 1.1-Dic1loroet1ene	6./,./"	.	µg/L	G.	G.	+2+	No Limit
		EP074: Iodomet1ane	6"/88/"	.	µg/L	G.	G.	+2+	No Limit

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QT Documents

33-052

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1004531) - continued									
EB0909112-001	Drain 1	EP074: trans-1.2-Dic1loroet1ene	5.#/#+/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1-Dic1loroet1ane	6./,"/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: cis-1.2-Dic1loroet1ene	5.#/.:/!	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.1-Tric1loroet1ane	65/../#	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1-Dic1loropropylene	.#,/.8/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: Carbon Tetrac1loride	.#/!,/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dic1loroet1ane	5+6/+#/!	.	µg/L	G.	G.	+2+	No Limit
		EP074: Tric1loroet1ene	6:/+5/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: Dibromomet1ane	6"/:./,	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.2-Tric1loroet1ane	6:/++/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.3-Dic1loropropane	5"!/!8/:	.	µg/L	G.	G.	+2+	No Limit
		EP074: Tetrac1loroet1ene	5!6/58/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.1.2-Tetrac1loroet1ane	#,+/!+/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: trans-1.4-Dic1loro-2-b2tene	55+/.6/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: cis-1.4-Dic1loro-2-b2tene	5"6#/55/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.2.2-Tetrac1loroet1ane	6:/,"/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.3-Tric1loropropane	:#/58/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: Pentac1loroet1ane	6#/+5/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dibromo-3-c1loropropane	:#/5!/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: Hexac1lorob2tadiene	86/#8/	.	µg/L	G.	G.	+2+	No Limit
		EP074: Dic1lorodifl2oromet1ane	6./65/8	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: C1loromet1ane	6"/86/,	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: Pinyl c1loride	6./+5/"	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: Bromomet1ane	6"/8,/:	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: C1loroet1ane	6./++/,	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: Tric1lorofl2oromet1ane	6./#:/"	.+	µg/L	G.+	G.+	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: 1.1-Dic1loroet1ene	6./,./"	.	µg/L	G.	G.	+2+	No Limit
		EP074: Iodomet1ane	6"/88/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: trans-1.2-Dic1loroet1ene	5.#/#+/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1-Dic1loroet1ane	6./,"/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: cis-1.2-Dic1loroet1ene	5.#/.:/!	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.1-Tric1loroet1ane	65/../#	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1-Dic1loropropylene	.#,/.8/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: Carbon Tetrac1loride	.#/!,/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dic1loroet1ane	5+6/+#/!	.	µg/L	G.	G.	+2+	No Limit
		EP074: Tric1loroet1ene	6:/+5/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: Dibromomet1ane	6"/:./,	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.2-Tric1loroet1ane	6:/++/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.3-Dic1loropropane	5"!/!8/:	.	µg/L	G.	G.	+2+	No Limit
		EP074: Tetrac1loroet1ene	5!6/58/"	.	µg/L	G.	G.	+2+	No Limit

PTI DL RELEASE - EHP

DL Documents

33-052

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 (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1004531) - continued									
EB0909114-014	Anonymo2s	EP074: 1.1.1.2-Tetrac1loroet1ane	#,+/!+/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: trans-1.4-Dic1loro-2-b2tene	55+/.6/#	.	µg/L	G.	G.	+2+	No Limit
		EP074: cis-1.4-Dic1loro-2-b2tene	5"6#/55/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.1.2.2-Tetrac1loroet1ane	6:/,"/.	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.3-Tric1loropropane	:#/58/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: Pentac1loroet1ane	6#/+5/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dibromo-3-c1loropropane	:#/5!/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: Hexac1lorob2tadiene	86/#8/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: Dic1lorodifl2oromet1ane	6./65/8	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: C1loromet1ane	6"/86/,	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: Pinyl c1loride	6./+5/"	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: Bromomet1ane	6"/8,/:	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: C1loroet1ane	6./++/,	.+	µg/L	G.+	G.+	+2+	No Limit
		EP074: Tric1lorofl2oromet1ane	6./#:/"	.+	µg/L	G.+	G.+	+2+	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: C1lorobenzene	5+8/:+/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: Bromobenzene	5+8/8#/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 2-C1lorotol2ene	:./":/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: 4-C1lorotol2ene	5+#/",/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.3-Dic1lorobenzene	."5/6,/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.4-Dic1lorobenzene	5+#/"#/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dic1lorobenzene	:./.+/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.4-Tric1lorobenzene	5!+/8!/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.3-Tric1lorobenzene	86/#5/#	.	µg/L	G.	G.	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: C1lorobenzene	5+8/:+/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: Bromobenzene	5+8/8#/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 2-C1lorotol2ene	:./":/8	.	µg/L	G.	G.	+2+	No Limit
		EP074: 4-C1lorotol2ene	5+#/",/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.3-Dic1lorobenzene	."5/6,/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.4-Dic1lorobenzene	5+#/"#/6	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2-Dic1lorobenzene	:./.+/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.4-Tric1lorobenzene	5!+/8!/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: 1.2.3-Tric1lorobenzene	86/#5/#	.	µg/L	G.	G.	+2+	No Limit
EP074G: Trihalomethanes (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: C1loroform	#6/##/,	.	µg/L	G.	G.	+2+	No Limit
		EP074: Bromodic1loromet1ane	6./!6/"	.	µg/L	G.	G.	+2+	No Limit
		EP074: Dibromoc1loromet1ane	5!"/"8/5	.	µg/L	G.	G.	+2+	No Limit
		EP074: Bromoform	6./!./!	.	µg/L	G.	G.	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: C1loroform	#6/##/,	.	µg/L	.,	.+	#2,	0% - 50%

RTI DL RELEASE - EHP

DL Documents

133-052

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074G: Trihalomethanes (QC Lot: 1004531) - continued									
EB0909114-014	Anonymo2s	EP074: Bromodic1loromet1ane	6./!6/"	.	µg/L	!:	!8	.2.	No Limit
		EP074: Dibromoc1loromet1ane	5!"/"8/5	.	µg/L	5+	:	5.26	No Limit
		EP074: Bromoform	6./!./!	.	µg/L	G.	G.	+2+	No Limit
EP074H: Naphthalene (QC Lot: 1004531)									
EB0909112-001	Drain 1	EP074: Nap1t1alene	:5/!+/,	6	µg/L	G6	G6	+2+	No Limit
EB0909114-014	Anonymo2s	EP074: Nap1t1alene	:5/!+/,	6	µg/L	G6	G6	+2+	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1004532)									
EB0909112-001	Drain 1	EP080: C6 - C9 Fraction	////	!+	µg/L	G!+	G!+	+2+	No Limit
EP080: BTEX (QC Lot: 1004532)									
EB0909112-001	Drain 1	EP080: Benzene	65/",/!	5	µg/L	G5	G5	+2+	No Limit
		EP080: Tol2ene	5+8/88/,	!	µg/L	G!	G!	+2+	No Limit
		EP080: Et1ylbenzene	5++/"5/"	!	µg/L	G!	G!	+2+	No Limit
		EP080: meta- & para-Xylene	108-38-3 5+#/"!/,	!	µg/L	G!	G!	+2+	No Limit
		EP080: ort1o-Xylene	:./"6/#	!	µg/L	G!	G!	+2+	No Limit

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DL Documents

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

¸ 1e =2ality control term Met1od / Laboratory Blank refers to an analyte free matrix to @lic1 all reagents are added in t1e same vol2mes or proportions as 2sed in standard sample preparation. ¸ 1e 32rpose of t1is QC parameter is to monitor potential laboratory contamination. ¸ 1e =2ality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked wit1 target analytes. T1e p2rpose of t1is QC parameter is to monitor met1od precision and acc2racy independent of sample matrix. Dynamic Recovery Limits are based on statistical eval2ation of processed LCS.

˘ 2b-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 1006390)								
EG020A-T: Arsenic	6""+/,8/!	+2++5	mg/L	G+2++5	0.100 mg/L	:#2#	6#	5!+
EG020A-T: Cadmi2m	6""+/",/:	+2+++5	mg/L	G+2+++5	0.100 mg/L	5+,	8"	55!
EG020A-T: C1romi2m	6""+/"6/,	+2++5	mg/L	G+2++5	0.100 mg/L	555	8!	5!"
EG020A-T: Copper	6""+/.+/8	+2++5	mg/L	G+2++5	0.200 mg/L	5+!	8!	55#
EG020A-T: Lead	6",:/:!/5	+2++5	mg/L	G+2++5	0.100 mg/L	5+,	8.	55,
EG020A-T: Nickel	6""+/+!/+	+2++5	mg/L	G+2++5	0.100 mg/L	5+!	85	556
EG020A-T: Zinc	6""+/##/#	+2++.	mg/L	G+2++.	0.200 mg/L	5+!	85	5!,
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1005964)								
EG035T: Merc2ry	6",:/:6/#	+2+++5	mg/L	G+2+++5	0.0100 mg/L	::2+	8+	55#
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1004531)								
EP074: Benzene	65/",/!	.	µg/L	G.	10 µg/L	:#25	6.	5!!
EP074: Tol2ene	5+8/88/,	.	µg/L	G.	10 µg/L	5+5	652!	5!"
EP074: Et1ylbenzene	5++/"5/"	.	µg/L	G.	10 µg/L	:.2!	6#	5!+
EP074: meta- & para-Xylene	108-38-3 5+#/"!/,	.	µg/L	G.	20 µg/L	:"25	#8	5,!
EP074: Styrene	5++/"!/.	.	µg/L	G.	10 µg/L	:,2.	#8	5!6
EP074: ort1o-Xylene	:./"6/#	.	µg/L	G.	10 µg/L	:#28	6#	5!!
EP074: Isopropylbenzene	:8/8!/8	.	µg/L	G.	10 µg/L	:,28	6"	5!,
EP074: n-Propylbenzene	5+,/#./5	.	µg/L	G.	10 µg/L	:.2.	6+	5!.
EP074: 1.3.5-Trimet1ylbenzene	5+8/#6/8	.	µg/L	G.	10 µg/L	::2#	6"	5!5
EP074: sec-B2tylbenzene	5,./:8/8	.	µg/L	G.	10 µg/L	:,2!	6!	5!"
EP074: 1.2.4-Trimet1ylbenzene	:./#,/#	.	µg/L	G.	10 µg/L	:82:	6,2.	5!"
EP074: tert-B2tylbenzene	:8/+#/#	.	µg/L	G.	10 µg/L	:62+	652#	5!8
EP074: p-Isopropyltol2ene	::/86/#	.	µg/L	G.	10 µg/L	::2.	#82,	5,+
EP074: n-B2tylbenzene	5+"/.5/8	.	µg/L	G.	10 µg/L	:,28	#6	5!#
EP074B: Oxygenated Compounds (QCLot: 1004531)								
EP074: Pinyl Acetate	5+8/+./"	.+	µg/L	G.+	100 µg/L	:!2#	#.	5"6
EP074: 2-B2tanone (MEK)	68/:,/,	.+	µg/L	G.+	100 µg/L	5+8	."	5,+
EP074: 4-Met1yl-2-pentanone (MIBK)	5+8/5+/5	.+	µg/L	G.+	100 µg/L	5+5	#,	5,6
EP074: 2-Hexanone (MBK)	.:5/68/#	.+	µg/L	G.+	100 µg/L	:828	#!	5,.
EP074C: Sulfonated Compounds (QCLot: 1004531)								
EP074: Carbon dis2lfide	6./5./+	.	µg/L	G.	10 µg/L	:"2.	#8	5,.
EP074D: Fumigants (QCLot: 1004531)								
EP074: 2.2-Dic1loropropane	.:"/!+/6	.	µg/L	G.	10 µg/L	882!	#+26	5",

RTIDL RELEASE - EHP

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP074D: Fumigants (QCLot: 1004531) - continued								
EP074: 1.2-Dic1loropropane	68/86/.	.	µg/L	G.	10 µg/L	:+2:	#:26	5!8
EP074: cis-1.3-Dic1loropropylene	5++#5/+5/.	.	µg/L	G.	20 µg/L	:#2.	#8	5,5
EP074: trans-1.3-Dic1loropropylene	5++#5/+!/#	.	µg/L	G.	20 µg/L	::2!	#6	5"+
EP074: 1.2-Dibromoet1ane (EDB)	5+#/:/"	.	µg/L	G.	10 µg/L	:626	#825	5,!
EP074E: Halogenated Aliphatic Compounds (QCLot: 1004531)								
EP074: Dic1lorodifl2oromet1ane	6./65/8	.+	µg/L	G.+	100 µg/L	# 148	.!	5,+
EP074: C1loromet1ane	6"/86/,	.+	µg/L	G.+	100 µg/L	5!#	",25	5,+
EP074: Pinyl c1loride	6./+5/"	.+	µg/L	G.+	100 µg/L	5+8	.,	5""
EP074: Bromomet1ane	6"/8,/:	.+	µg/L	G.+	100 µg/L	5!#	.62.	5,+
EP074: C1loroet1ane	6./++/,	.+	µg/L	G.+	100 µg/L	5+5	6+	5,6
EP074: Tric1lorofl2oromet1ane	6./#:/"	.+	µg/L	G.+	100 µg/L	:#28	#"	5,.
EP074: 1.1-Dic1loroet1ene	6./,./"	.	µg/L	G.	10 µg/L	5+#	#,2:	5,.
EP074: Iodomet1ane	6"/88/"	.	µg/L	G.	10 µg/L	55.	.62!	5,+
EP074: trans-1.2-Dic1loroet1ene	5.#/#+/.	.	µg/L	G.	10 µg/L	:.28	6+	5!8
EP074: 1.1-Dic1loroet1ane	6./,"/,	.	µg/L	G.	10 µg/L	:,2+	#"	5,#
EP074: cis-1.2-Dic1loroet1ene	5.#/.:/!	.	µg/L	G.	10 µg/L	:#2"	65	5!8
EP074: 1.1.1-Tric1loroet1ane	65/../#	.	µg/L	G.	10 µg/L	:!2"	#82"	5,.
EP074: 1.1-Dic1loropropylene	.#,/.8/#	.	µg/L	G.	10 µg/L	:!28	652"	5!6
EP074: Carbon Tetrac1loride	.#/!,/.	.	µg/L	G.	10 µg/L	8:26	#"	5,"
EP074: 1.2-Dic1loroet1ane	5+6/+#/!	.	µg/L	G.	10 µg/L	5+"	#8	5,"
EP074: Tric1loroet1ene	6:/+5/#	.	µg/L	G.	10 µg/L	:#26	6!	5!6
EP074: Dibromomet1ane	6"/:./,	.	µg/L	G.	10 µg/L	:52#	#,2:	5,#
EP074: 1.1.2-Tric1loroet1ane	6:/++/.	.	µg/L	G.	10 µg/L	:82,	#:2!	5,,
EP074: 1.3-Dic1loropropane	5"!/!8/:	.	µg/L	G.	10 µg/L	5+!	6,26	5,+
EP074: Tetrac1loroet1ene	5!6/58/"	.	µg/L	G.	10 µg/L	:"25	6,28	5,!
EP074: 1.1.1.2-Tetrac1loroet1ane	#,+/!+/#	.	µg/L	G.	10 µg/L	5+6	85	5!,
EP074: trans-1.4-Dic1loro-2-b2tene	55+/.6/#	.	µg/L	G.	10 µg/L	5+,	!#	5,+
EP074: cis-1.4-Dic1loro-2-b2tene	5"6#/55/.	.	µg/L	G.	10 µg/L	5+8	.525	5,+
EP074: 1.1.2.2-Tetrac1loroet1ane	6:/,"/.	.	µg/L	G.	10 µg/L	::2,	6!	5,,
EP074: 1.2.3-Tric1loropropane	:#/58/"	.	µg/L	G.	10 µg/L	5+.	.:	5"8
EP074: Pentac1loroet1ane	6#/+5/6	.	µg/L	G.	10 µg/L	:626	#8	5,8
EP074: 1.2-Dibromo-3-c1loropropane	:#/5!/8	.	µg/L	G.	10 µg/L	:82.	.!	5.+
EP074: Hexac1lorob2tadiene	86/#8/,	.	µg/L	G.	10 µg/L	8:2!	#!	5"!
EP074F: Halogenated Aromatic Compounds (QCLot: 1004531)								
EP074: C1lorobenzene	5+8/:+/6	.	µg/L	G.	10 µg/L	:62"	66	5!+
EP074: Bromobenzene	5+8/8#/5	.	µg/L	G.	10 µg/L	5++	6#	5!!
EP074: 2-C1lorotol2ene	:./":/8	.	µg/L	G.	10 µg/L	:"2"	6.2,	5!"
EP074: 4-C1lorotol2ene	5+#/",/"	.	µg/L	G.	10 µg/L	:#26	6#	5!+
EP074: 1.3-Dic1lorobenzene	."5/6,/5	.	µg/L	G.	10 µg/L	::25	6.2!	5!+

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DL Documents

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074F: Halogenated Aromatic Compounds (QCLot: 1004531) - continued								
EP074: 1.4-Dic1lorobenzene	5+#/"#/6	.	µg/L	G.	10 µg/L	5+!	6#25	55:
EP074: 1.2-Dic1lorobenzene	:./.+/5	.	µg/L	G.	10 µg/L	5+5	6626	558
EP074: 1.2.4-Tric1lorobenzene	5!+/8!/5	.	µg/L	G.	10 µg/L	:82!	#82,	5!8
EP074: 1.2.3-Tric1lorobenzene	86/#6/#	.	µg/L	G.	10 µg/L	5+5	6.	5!.
EP074G: Trihalomethanes (QCLot: 1004531)								
EP074: C1loroform	#6/##/,	.	µg/L	G.	10 µg/L	:526	6525	5!6
EP074: Bromodic1loromet1ane	6./!6/"	.	µg/L	G.	10 µg/L	:52!	#8	5,!
EP074: Dibromoc1loromet1ane	5!"/"8/5	.	µg/L	G.	10 µg/L	::2#	#:	5,+
EP074: Bromoform	6./!./!	.	µg/L	G.	10 µg/L	:"2#	#!	5,6
EP074H: Naphthalene (QCLot: 1004531)								
EP074: Nap1t1alene	:5/!+/,	6	µg/L	G6	10 µg/L	5+"	8,25	55:
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1004507)								
EP071: C10 - C14 Fraction	////	.+	µg/L	G.+	600 µg/L	6!26	":	55+
EP071: C15 - C28 Fraction	////	5++	µg/L	G5++	1020 µg/L	8"2"	.8	5,+
EP071: C29 - C36 Fraction	////	.+	µg/L	G.+	////	////	////	////
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1004532)								
EP080: C6 - C9 Fraction	////	!+	µg/L	G!+	160 µg/L	5+.	6,	5,.
EP080: BTEX (QCLot: 1004532)								
EP080: Benzene	65/",/!	5	µg/L	G5	10 µg/L	5+#	662#	5!!
EP080: Tol2ene	5+8/88/,	!	µg/L	G!	10 µg/L	5+.	6"	5!!
EP080: Et1ylbenzene	5++/"5/"	!	µg/L	G!	10 µg/L	5+.	6,	5!#
EP080: meta- & para-Xylene	108-38-3 5+#/"!/,	!	µg/L	G!	20 µg/L	555	6+2"	5!:
EP080: ort1o-Xylene	:./"6/#	!	µg/L	G!	10 µg/L	55+	6"2,	5!#

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DL Documents

33-054

Matrix Spike (MS) Report

¸ 1e =2ality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked wit1 a representative set of target analytes. ¸ 1e 32rpose of t1is QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Q2ality Objectives (DQOs). Ideal recovery ranges stated may be waived in t1e event of sample matrix interference.

˘ 2b-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 1006390)							
EB0908843-005	Anonymo2s	EG020A-T: Arsenic	6""+/,8/!	1.000 mg/L	5+5	6+	5,+
		EG020A-T: Cadmi2m	6""+/",/:	0.500 mg/L	5+5	6+	5,+
		EG020A-T: C1romi2m	6""+/"6/,	1.000 mg/L	5++	6+	5,+
		EG020A-T: Copper	6""+/.+/8	1.000 mg/L	:.2+	6+	5,+
		EG020A-T: Lead	6",:/:!/5	1.000 mg/L	:.25	6+	5,+
		EG020A-T: Nickel	6""+/+!/+	1.000 mg/L	:#28	6+	5,+
		EG020A-T: Zinc	6""+/##/#	1.000 mg/L	:#28	6+	5,+
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1005964)							
EB0909083-007	Anonymo2s	EG035T: Merc2ry	6",:/:6/#	0.010 mg/L	5+6	6+	5,+
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1004531)							
EB0909114-016	Anonymo2s	EP074: Benzene	65/",/!	10 µg/L	652!	6+	5,+
		EP074: Tol2ene	5+8/88/,	10 µg/L	# 66.9	6+	5,+
EP074E: Halogenated Aliphatic Compounds (QCLot: 1004531)							
EB0909114-016	Anonymo2s	EP074: 1.1-Dic1loroet1ene	6./,./"	10 µg/L	8528	6+	5,+
		EP074: Tric1loroet1ene	6:/+5/#	10 µg/L	# 65.3	6+	5,+
EP074F: Halogenated Aromatic Compounds (QCLot: 1004531)							
EB0909114-016	Anonymo2s	EP074: C1lorobenzene	5+8/:+/6	10 µg/L	6,28	6+	5,+
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1004532)							
EB0909114-016	Anonymo2s	EP080: C6 - C9 Fraction	////	140 µg/L	# 58.7	6+	5,+
EP080: BTEX (QCLot: 1004532)							
EB0909114-016	Anonymo2s	EP080: Benzene	65/",/!	10 µg/L	662.	6+	5,+
		EP080: Tol2ene	5+8/88/,	10 µg/L	6#25	6+	5,+

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D: Documents

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0909112**	%$Ae	: 5 of 6
Client	: SINCLAIR KNIGHT MERZ	Laboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOX 246 SPRING HILL QLD, AUSTRALIA 4004	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: okanas@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: +61 07 3244 7100	Telephone	: +61-7-3243 7222
Facsimile	: +61 07 3244 7306	Facsimile	: +61-7-3243 7218
Project	: QE09537 Greyhound Qld Ltd	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: 2222		
C-O-C number	: 2222	Date Samples Received	: ,=2A+˘2',,=
Sampler	: O.KANAS	Issue Date	: 16-JUN-2009
Order number	: 2222		
		No. of samples received	: 8
Quote number	: EN/003/09	No. of samples analysed	: 8

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

33-054

Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, ˆ%°ˆ , AS and NEPM >8==>. A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Unfiltered; Lab-acidified							
Drain 1	09-JUN-2009	11-JUN-2009	06-DEC-2009	✓	11-JUN-2009	06-DEC-2009	✓
EG035T: Total Recoverable Mercury by FIMS							
Clear Plastic Bottle - Unfiltered; Lab-acidified							
Drain 1	09-JUN-2009	----	2222	2222	11-JUN-2009	07-JUL-2009	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074B: Oxygenated Compounds							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074C: Sulfonated Compounds							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074D: Fumigants							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074E: Halogenated Aliphatic Compounds							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074F: Halogenated Aromatic Compounds							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074G: Trihalomethanes							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓
EP074H: Naphthalene							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	09-JUN-2009	---	222	2222	11-JUN-2009	'-2A+˜2',,=	✓

DL Documents

33-034

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
Drain 1	**09-JUN-2009**	**11-JUN-2009**	16-JUN-2009	✓	**15-JUN-2009**	21-JUL-2009	✓
Amber VOC Vial - HCl or NaHSO4							
Drain 1	**09-JUN-2009**	**---**	222	2222	**11-JUN-2009**	'-2A+˝2',,=	✓
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4							
Drain 1	**09-JUN-2009**	**---**	222	2222	**11-JUN-2009**	'-2A+˝2',,=	✓

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33-05-2
DL Documents

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER** Evaluation: × = Qualit Control fre@enc not within s6ecification G✓ = Qualit Control fre@enc within s6ecification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Total Mercury by FIMS	EG035T	'	' ,	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	'	' ,	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	6	**16.7**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	'	8 6	**12.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Total Mercury by FIMS	EG035T	8	' ,	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	8	' ,	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	8	8=	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	6	**16.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	8	86	**6.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Total Mercury by FIMS	EG035T	8	' ,	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	8	' ,	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	8	8=	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	6	**16.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	8	86	**6.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Total Mercury by FIMS	EG035T	8	' ,	**5.0**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP-MS - Suite A	EG020A-T	8	' ,	**5.0**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	6	**16.7**	**5.0**	✓	ALS QCS3 requirement
Volatile Organic Compounds	EP074	8	86	**6.3**	**5.0**	✓	ALS QCS3 requirement

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13-094

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Total Mercury by FIMS	EG035T	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the unfiltered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals	EN25	WATER	USEPA SW846-3005 Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Separatory Funnel Extraction of Liquids	#¨8(	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.

RTI DATE RECEIVED: 17/09/2009

DL Documents

13-054

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP074E: Halogenated Aliphatic Compounds	88181192,,'	2222	**Dichlorodifluoromethane**	912982;	148 %	1'28-,L	**Recovery greater than upper control limit**
Matrix Spike (MS) Recoveries							
EP074A: Monocyclic Aromatic Hydrocarbons	EB0909114-016	Anonymous	**Toluene**	8,;2;;2-	66.9 %	9,28-,L	**Recovery less than lower data quality objective**
EP074E: Halogenated Aliphatic Compounds	EB0909114-016	Anonymous	**Trichloroethene**	79-01-6	65.3 %	9,28-,L	**Recovery less than lower data quality objective**
EP080/071: Total Petroleum Hydrocarbons	EB0909114-016	Anonymous	**C6 - C9 Fraction**	2222	58.7 %	9,28-,L	**Recovery less than lower data quality objective**

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**

Regular Sample Surrogates

- **For all regular sample matrices, no surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

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DL Documents

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order	: **EB0909112**		
Client	: **SINCLAIR KNIGHT MERZ**	¸ aboratory	: Environmental Division Brisbane
Contact	: MS ONA KANAS	Contact	: Tim Kilmister
Address	: P O BOA BCD SPRING HILL E¸˜ FA, STRALIA C!! C	Address	: GBSHand Street Stallord ELD Australia C! NG
* 0nail	: ', a%as@skm.com.a(	* 0nail	: Services.Brisbane@alsenviro.com
TelepHone	: 3D1 07 GBC07100	TelepHone	: 3D4 05 0GBCG7BBB
6acsimile	: 3D1 07 GBC07G1 D	6acsimile	: 3D4 05 0GBCG7B47
Project	: E*! 7NG7 GreyHound Eld Ltd	PaMe	: 4 ' I B
Order number	: OOOO		
: 00C number	: OOOO	Euote number	: ESB!! 7SINKNI0GBB;EN/00G=!7?
Site	: OOOO		
Sampler	: O.KANAS	EC Level	: NEPM 4777 ScHedule B;G? and ALS ECSGre@irement

Dates

˜ ate Samples Received	: ! 70A, NCB!! 7	Issue Date	: 4! 0A, NCB!! 7 07:CG
Client Re@ested Due Date	: 4D0A, NCB!! 7	ScHeduled ReportinM Date	: **16-JUN-2009**

Delivery Details

Mode ol Delivery	: Client Drop olI	Temperature	: 47.0 C
No. ol coolers/boxes	: 1 SMALL	No. ol samples received	: 4
Sercurity Seal	: Not intact.	No. ol samples a%alysed	: 4

General Comments

- THis report contains tHe lolloC %Minlormation:
  - O Sample Container; ?Preservation NonCCompliances
  - O Summary ol Sample; ?and Re@ested Analysis
  - O Re@ested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any turn around / tecH% /al @eries to tHe laboratory contact desiM%ated above.
- Please direct any @eries related to sample condition / numberinM/ brea, aMes to MaMMe KaH.
- Analytical Cork lor tHis Cork order Cill be conducted at ALS Brisbane.
- Sample Disposal OA@eous ;4C daA ?FSolid ;70 daA ?lrom date ol completion ol Cork order.

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Sample Container(s)/Preservation Non-Compliances

All comparisons are made aMainst pretreatment/preservation ASFAPHAF, SEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described beloC may be 2art ' I a laboratorA process neccessary lor tHe execution ' I client re@uested tasks. Pa/, aMes may contain additional a%alysesF (/ H a tHe determination ' I moisture content and preparation ta , FtHat are included in tHe pa/, aMe.
E Hen date; ? and/or time; ? are H Cn bracketedF tHese Have been assumed by tHe laboratory lor processinM purposes. ^I tHe amplinM time is displayed as 0:00 tHe %ormation was not provided by client.

Matrix: **WATER**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	E ATER OEP07C;water? Volatile Organic Compounds	E ATER - E -05T TPH/BTEX/8 Metals (Total)
EB0909112-001	^%˘(, N-2009 15:00	Drain 1	✓	✓

RTI DL RELEASE - EHP

Requested Deliverables

MR JEREMY WICKS

˘ *A, Certificate of Analysis - NATA (COA)	Email	jwicks@skm.com.au
˘ *A, Interpretive QC Report - DEFA, LT (Anon QCI Rep) (QCI)	Email	jwicks@skm.com.au
˘ *A, QC Report - DEFA, LT (Anon QC Rep) - NATA (QC)	Email	jwicks@skm.com.au
˘ A4 - A, Sample Receipt Notification - Environmental (SRN)	Email	jwicks@skm.com.au
˘ A4 - A, Tax Invoice (INV)	Email	jwicks@skm.com.au
˘ Default - Chain of Custody (COC)	Email	jwicks@skm.com.au
˘ EDI Format - ENMRG (ENMRG)	Email	jwicks@skm.com.au
˘ EDI Format - ESDAT (ESDAT)	Email	jwicks@skm.com.au
˘ EDI Format - XTab (XTAB)	Email	jwicks@skm.com.au

MS ONA KANAS

˘ *A, Certificate of Analysis - NATA (COA)	Email	okanas@skm.com.au
˘ *A, Interpretive QC Report - DEFA, LT (Anon QCI Rep) (QCI)	Email	okanas@skm.com.au
˘ *A, QC Report - DEFA, LT (Anon QC Rep) - NATA (QC)	Email	okanas@skm.com.au
˘ A4 - A, Sample Receipt Notification - Environmental (SRN)	Email	okanas@skm.com.au
˘ Default - Chain of Custody (COC)	Email	okanas@skm.com.au
˘ EDI Format - ENMRG (ENMRG)	Email	okanas@skm.com.au
˘ EDI Format - ESDAT (ESDAT)	Email	okanas@skm.com.au
˘ EDI Format - XTab (XTAB)	Email	okanas@skm.com.au

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

RTI DL RELEASE - EHP

Work Order	: **EB0914886**	Page	: 1 of 18
Client	: **SINCLAIR KNIGHT MERZ**	Laboratory	: Environmental Divi ion Bri ane
Contact	: MS ONA KANAS	Contact	: ' im Kilmi ter
ˇ ((ress	: EASTERN BUSWAY PROJEC' PO BOX 3848 S' H BRISBˇˇ E 4101	ˇ ((ress	: 32 Shan(Street Staffor(QLD Au tralia 40(!
E-mail	: okanas+ km.com.a'	E-mail	: Services,Bri ane+ alsenviro.com
Telephone	: +61 07 3026 7286	Telephone	: +61-7-3243 7222
Fac imile	: +61 07 3026 7306	Fac imile	: +61-7-3243 7218
Project	: &E09(!/	QC Level	: ˇ EPM 1999 Sched' le B(3) an(ALS QCS3 requirement
Order number	:))))		
C-O-C number	:))))	Date Samples Received	: 18-SEP)$009
Sampler	:))))	# ˇe Date	: 01-OC')$009
Site	: Cronulla Park		
		No. of samples received	: 16
Quote number	: Eˇ400!409	No. of samples anal sed	: 15

' hi report '- ersedes any previou report1) with thi reference. ˇ es' lt a-- ly to the sample1) as ubmitted. ˇ ll pages of thi report %ave been checked an(approved for release.

' hi Certificate of Anal i contain the following information:

- 6 eneral Comment
- Analytical Res' lt
- Surrogate Control Limit

ˇˇ ' A Accredited Laboratory 825

' hi (ocument i i ' ed in accordance with NA' A accreditation requirement ,

Accredited for compliance with ISO/IEC 170$(,

Signatories

' hi (ocument %as been electronically igned by the authorized ignatories in(icated below. Electronic igning has been carried out in compliance with procedures - ecified in 21 C R Part 11.

Signatories	*Position*	*Accreditation Category*
Kim McCa e	Senior Inorganic Chemi t	Inorganic
Matt ro t	Organic In trument Chemi t	Organic
ˇ ancy Wang	In trument Chemi t	Organic
Ste-%en Hislop	Senior Inorganic Chemi t	Inorganic

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Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shan(Street Staffor(QLD Au tralia 40(!
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

13-05-

General Comments

' %e analytical procedures used by the Environmental Divi ion %ave been developed from esta li %ed internationally recognized procedures uch as those -' li %ed by the USEPA, ˇ P"˜ , AS an(NEPM. In house developed procedures are employed in the a sence of (ocumented tandar(or by client re3' est.

¸% ere moi ture determination has been performed, res' lt are reported on a (ry weight basi ,

¸% ere a reported less than (<) res' lt i hig%er than the LOR, thi may be (' e to primary sample extract/(igestate (ilution an(/or in uffient sample for anal i ,

¸% ere the LOR of a reported res' lt (iffer from tandar(LOR, thi may be (' e to high moi ture content, in ufficient sample (reduced weight employed) or matrix interference,

¸% en date1) an(/or time1) are hown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time i (i - la ed as 0:00 the information was not provided by client.

ˆ ey : CAS Number = CAS regi try number from data ase maintained by Chemical Ab tract Services. ' %e Chemical Ab tract Service i a (ivi ion of the American Chemical Society.
LOR = Limit of reporting
^ = ' hi res' lt i computed from in(ivi(' al analyte detection at or above the level of reporting

- **EP075: 'Sum of PAH' is the sum of the USEPA 16 priority PAHs**
- **EP075SIM: Poor surrogate recovery 'Phenol-d6' for samples 'EB0914886_005, 006' due to matrix interferences, confirmed by re-analysis.**
- **PAH/phenols: Sample MW08 required dilution prior to analysis due to matrix interferences. LOR values have been adjusted accordingly.**

RTI DL RELEASE - EHP

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0,001	mg/L	; 0,001	; 0,001	**0.001**	**0.007**	**0.003**
Cadmium	7440-43-9	0,0001	mg/L	**0.0002**	**0.0003**	**0.0007**	**0.0004**	; 0,0001
Chromium	7440-47-3	0,001	mg/L	**0.021**	**0.001**	**0.012**	**0.003**	**0.019**
Copper	7440)(0-8	0,001	mg/L	**0.014**	**0.003**	**0.020**	**0.004**	**0.004**
Lead	7439)92-1	0,001	mg/L	**0.115**	**0.001**	**0.048**	; 0,001	**0.001**
Nickel	7440)0$)0	0,001	mg/L	**0.028**	**0.002**	**0.124**	**0.009**	**0.012**
Zinc	7440-66-6	0,00(	mg/L	**0.072**	**0.060**	**0.463**	**0.013**	**0.018**
EG035F: Dissolved Mercury by FIMS								
Mercury	7439)97-6	0,0001	mg/L	; 0,0001	; 0,0001	<0,0001	<0,0001	<0,0001
EP070: Total Petroleum Hydrocarbons - Speciation								
Aliphatic C10-C14	))))	(0	=g/L	))))	))))	))))	;(0	;(0
Aliphatic C15-C28	))))	100	=g/L	))))	))))	))))	<100	<100
Aliphatic C29-C36	))))	(0	=g/L	))))	))))	))))	;(0	;(0
Aromatic C10-C14	))))	(0	=g/L	))))	))))	))))	**60**	**60**
Aromatic C15-C28	))))	100	=g/L	))))	))))	))))	<100	<100
Aromatic C29-C36	))))	(0	=g/L	))))	))))	))))	;(0	;(0
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	1	=g/L	))))	))))	;$	**4**	**2**
Toluene	108-88-3	$	=g/L	))))	))))	;$	;$	;$
Ethylbenzene	100-41-4	$	=g/L	))))	))))	;$	;$	;$
meta- & para-Xylene	108-38-3 106-42-3	$	=g/L	))))	))))	<4	<4	<4
Styrene	100-42-5	(	=g/L	))))	))))	;(	;(	;(
ortho-Xylene	95-47-6	$	=g/L	))))	))))	;$	;$	;$
Isopropylbenzene	98-82-8	(	=g/L	))))	))))	;(	;(	;(
n-Propylbenzene	103-65-1	(	=g/L	))))	))))	;(	**7**	;(
1.3.5-Trimethylbenzene	108-67-8	(	=g/L	))))	))))	;(	;(	;(
sec-Butylbenzene	135-98-8	(	=g/L	))))	))))	;(	;(	;(
1.2.4-Trimethylbenzene	95-63-6	(	=g/L	))))	))))	;(	;(	;(
tert-Butylbenzene	98-06-6	(	=g/L	))))	))))	;(	;(	;(
p-Isopropyltoluene	99-87-6	(	=g/L	))))	))))	;(	;(	;(
n-Butylbenzene	104-51-8	(	=g/L	))))	))))	;(	;(	;(
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	(0	=g/L	))))	))))	;(0	;(0	;(0
2-Butanone (MEK)	78-9!)!	(0	=g/L	))))	))))	;(0	;(0	;(0
4-Methyl-2-pentanone (MIBK)	108-10-1	(0	=g/L	))))	))))	;(0	;(0	;(0
2-Hexanone (MBK)	(91-78-6	(0	=g/L	))))	))))	;(0	;(0	;(0
EP074C: Sulfonated Compounds								

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EP074C: Sulfonated Compounds - Continued								
Carbon disulfide	75-15-0	(	=g/L	))))	))))	;(	;(	;(
EP074D: Fumigants								
2.2-Dichloropropane	(94-20)/	(	=g/L	))))	))))	;(	;(	;(
1.2-Dichloropropane	78-87-5	(	=g/L	))))	))))	;(	;(	;(
cis-1.3-Dichloropropylene	10061-01-5	(	=g/L	))))	))))	;(	;(	;(
trans-1.3-Dichloropropylene	10061-02-6	(	=g/L	))))	))))	;(	;(	;(
1.2-Dibromoethane (EDB)	106-93-4	(	=g/L	))))	))))	;(	;(	;(
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	(0	=g/L	))))	))))	;(0	50	;(0
Chloromethane	74-87-3	(0	=g/L	))))	))))	;(0	;(0	;(0
Vinyl chloride	/() 01-4	(0	=g/L	))))	))))	;(0	;(0	;(0
Bromomethane	74-83-9	(0	=g/L	))))	))))	;(0	;(0	;(0
Chloroethane	/() 00)!	(0	=g/L	))))	))))	;(0	;(0	;(0
Trichlorofluoromethane	75-69-4	(0	=g/L	))))	))))	;(0	;(0	;(0
1.1-Dichloroethene	75-35-4	(	=g/L	))))	))))	;(	;(	;(
Iodomethane	74-88-4	(	=g/L	))))	))))	;(	;(	;(
trans-1.2-Dichloroethene	156-60)(	(	=g/L	))))	))))	;(	;(	;(
1.1-Dichloroethane	75-34-3	(	=g/L	))))	))))	;(	;(	;(
cis-1.2-Dichloroethene	156-59)$	(	=g/L	))))	))))	;(	;(	;(
1.1.1-Trichloroethane	71-55-6	(	=g/L	))))	))))	;(	;(	;(
1.1-Dichloropropylene	563-58-6	(	=g/L	))))	))))	;(	;(	;(
Carbon Tetrachloride	56-23-5	(	=g/L	))))	))))	;(	;(	;(
1.2-Dichloroethane	10/) 06-2	(	=g/L	))))	))))	;(	;(	;(
Trichloroethene	/ 9)01-6	(	=g/L	))))	))))	;(	;(	;(
Dibromomethane	74-9()!	(	=g/L	))))	))))	;(	;(	;(
1.1.2-Trichloroethane	/ 9)00)(	(	=g/L	))))	))))	;(	;(	;(
1.3-Dichloropropane	142-28-9	(	=g/L	))))	))))	;(	;(	;(
Tetrachloroethene	127-18-4	(	=g/L	))))	))))	;(	;(	;(
1.1.1.2-Tetrachloroethane	630)$0-6	(	=g/L	))))	))))	;(	;(	;(
trans-1.4-Dichloro-2-butene	110-57-6	(	=g/L	))))	))))	;(	;(	;(
cis-1.4-Dichloro-2-butene	1476-11-5	(	=g/L	))))	))))	;(	;(	;(
1.1.2.2-Tetrachloroethane	/ 9-34-5	(	=g/L	))))	))))	;(	;(	;(
1.2.3-Trichloropropane	96-18-4	(	=g/L	))))	))))	;(	;(	;(
Pentachloroethane	76-01-7	(	=g/L	))))	))))	;(	;(	;(
1.2-Dibromo-3-chloropropane	96-12-8	(	=g/L	))))	))))	;(	;(	;(
Hexachlorobutadiene	87-68-3	(	=g/L	))))	))))	;(	;(	;(
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90)/	(	=g/L	))))	))))	;(	6	24

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EP074F: Halogenated Aromatic Compounds - Continued								
Bromobenzene	108-86-1	(	=g/L	))))	))))	;(	;(	;(
2-Chlorotoluene	95-49-8	(	=g/L	))))	))))	;(	;(	;(
4-Chlorotoluene	106-43-4	(	=g/L	))))	))))	;(	;(	;(
1.3-Dichlorobenzene	541-73-1	(	=g/L	))))	))))	;(	;(	;(
1.4-Dichlorobenzene	106-46-7	(	=g/L	))))	))))	;(	;(	;(
1.2-Dichlorobenzene	9()(0-1	(	=g/L	))))	))))	;(	;(	;(
1.2.4-Trichlorobenzene	120-82-1	(	=g/L	))))	))))	;(	;(	;(
1.2.3-Trichlorobenzene	87-61-6	(	=g/L	))))	))))	;(	;(	;(
EP074G: Trihalomethanes								
Chloroform	67-66-3	(	=g/L	))))	))))	;(	;(	;(
Bromodichloromethane	75-27-4	(	=g/L	))))	))))	;(	;(	;(
Dibromochloromethane	124-48-1	(	=g/L	))))	))))	;(	;(	;(
Bromoform	/()$()$	(	=g/L	))))	))))	;(	;(	;(
EP075(SIM)A: Phenolic Compounds								
Phenol	108-9()$	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2-Chlorophenol	95-57-8	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2-Methylphenol	95-48-7	1.0	=g/L	))))	))))	))))	<1.0	<1.0
3- & 4-Methylphenol	1319)//)!	$,0	=g/L	))))	))))	))))	;$, 0	;$, 0
2-Nitrophenol	88-75-5	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2.4-Dimethylphenol	105-67-9	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2.4-Dichlorophenol	120-83-2	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2.6-Dichlorophenol	87-65-0	1.0	=g/L	))))	))))	))))	<1.0	<1.0
4-Chloro-3-Methylphenol	(9)(0)/	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2.4.6-Trichlorophenol	88-06-2	1.0	=g/L	))))	))))	))))	<1.0	<1.0
2.4.5-Trichlorophenol	9() 95-4	1.0	=g/L	))))	))))	))))	<1.0	<1.0
Pentachlorophenol	87-86-5	$,0	=g/L	))))	))))	))))	;$, 0	;$, 0
2.3.4.6-Tetrachlorophenol	58-90)$	1.0	=g/L	))))	))))	))))	<1.0	<1.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20)!	1.0	=g/L	))))	))))	<1.0	**12.3**	**5.9**
2-Methylnaphthalene	91-57-6	1.0	=g/L	))))	))))	))))	<1.0	<1.0
Acenaphthylene	$08-96-8	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Fluoranthene	$06-44-0	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Pyrene	129)00)0	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Benzo(b)fluoranthene	$0() 99)$	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	$0/) 08-9	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Benzo(a)pyrene	(0-32-8	0,(	=g/L	))))	))))	; 0,(	; 0,(	; 0,(
Indeno(1.2.3.cd)pyrene	19!)! 9)(	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	(!)/ 0)!	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	=g/L	))))	))))	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	))))	1.0	=g/L	))))	))))	))))	**12.3**	**5.9**
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	))))	$0	=g/L	;$ 0	;$ 0	;$ 0	**30**	**40**
C10 - C14 Fraction	))))	(0	=g/L	))))	))))	))))	**400**	**90**
C10 - C14 Fraction	))))	(0	=g/L	;(0	;(0	;(0	))))	))))
C15 - C28 Fraction	))))	100	=g/L	))))	))))	))))	**850**	**390**
C15 - C28 Fraction	))))	100	=g/L	<100	<100	<100	))))	))))
C29 - C36 Fraction	))))	(0	=g/L	))))	))))	))))	**170**	;(0
C29 - C36 Fraction	))))	(0	=g/L	;(0	;(0	;(0	))))	))))
^ C10 - C36 Fraction (sum)	))))	(0	=g/L	))))	))))	))))	**1430**	**470**
C10 - C36 Fraction (sum)	))))	(0	=g/L	;(0	;(0	;(0	))))	))))
EP080: BTEX								
Benzene	71-43-2	1	=g/L	<1	<1	))))	))))	))))
Toluene	108-88-3	$	=g/L	;$	;$	))))	))))	))))
Ethylbenzene	100-41-4	$	=g/L	;$	;$	))))	))))	))))
meta- & para-Xylene	108-38-3 106-42-3	$	=g/L	;$	;$	))))	))))	))))
ortho-Xylene	95-47-6	$	=g/L	;$	;$	))))	))))	))))
EP070S:TPH Surrogates - Speciation								
2-Fluorobiphenyl	321-60-8	0.1	>	))))	))))	))))	**100**	**103**
2-Bromonaphthalene	580-13-2	0.1	>	))))	))))	))))	**107**	**109**
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17060)0/) 0	0.1	>	))))	))))	**87.4**	**84.1**	**89.5**
Toluene-D8	$037-26-5	0.1	>	))))	))))	**99.7**	**92.6**	**97.4**
4-Bromofluorobenzene	460)00-4	0.1	>	))))	))))	**104**	**97.1**	**99.6**
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	>	))))	))))	**30.4**	**12.2**	**8.7**
2-Chlorophenol-D4	9! 951-73-6	0.1	>	))))	))))	**72.2**	**31.8**	**28.0**
2.4.6-Tribromophenol	118-79-6	0.1	>	))))	))))	**88.8**	**105**	**76.7**
EP075(SIM)T: PAH Surrogates								

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW01	MW02	MW03	MW04	MW05
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-001	EB0914886-002	EB0914886-003	EB0914886-004	EB0914886-005
EP075(SIM)T: PAH Surrogates - Continued								
2-Fluorobiphenyl	321-60-8	0.1	>	))))	))))	**101**	**86.1**	**55.4**
Anthracene-d10	1719)06-8	0.1	>	))))	))))	**82.5**	**108**	**80.7**
4-Terphenyl-d14	1718-51-0	0.1	>	))))	))))	**88.9**	**112**	**78.7**
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060)0/) 0	0.1	>	**87.3**	**94.1**	**97.3**	**94.0**	**99.4**
Toluene-D8	$037-26-5	0.1	>	**94.9**	**97.4**	**103**	**95.5**	**100**
4-Bromofluorobenzene	460)00-4	0.1	>	**99.1**	**102**	**106**	**99.2**	**102**

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	Dup01
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0,001	mg/L	**0.013**	**0.008**	**0.012**	; 0,001	**0.013**
Cadmium	7440-43-9	0,0001	mg/L	**0.0002**	**0.0006**	**0.0003**	**0.0002**	**0.0010**
Chromium	7440-47-3	0,001	mg/L	**0.001**	**0.018**	**0.009**	**0.001**	; 0,001
Copper	7440)(0-8	0,001	mg/L	**0.003**	**0.009**	**0.011**	**0.006**	**0.007**
Lead	7439)92-1	0,001	mg/L	; 0,001	**0.001**	<0,001	**0.003**	; 0,001
Nickel	7440)0$)0	0,001	mg/L	**0.008**	**0.046**	**0.023**	; 0,001	**0.008**
Zinc	7440-66-6	0,00(	mg/L	**0.026**	**0.016**	**0.034**	**0.021**	**0.026**
EG035F: Dissolved Mercury by FIMS								
Mercury	7439)97-6	0,0001	mg/L	; 0,0001	; 0,0001	<0,0001	<0,0001	<0,0001
EP070: Total Petroleum Hydrocarbons - Speciation								
Aliphatic C10-C14	))))	(0	=g/L	;(0	;(0	))))	))))	))))
Aliphatic C15-C28	))))	100	=g/L	<100	<100	))))	))))	))))
Aliphatic C29-C36	))))	(0	=g/L	;(0	;(0	))))	))))	))))
Aromatic C10-C14	))))	(0	=g/L	;(0	**90**	))))	))))	))))
Aromatic C15-C28	))))	100	=g/L	<100	<100	))))	))))	))))
Aromatic C29-C36	))))	(0	=g/L	;(0	;(0	))))	))))	))))
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	1	=g/L	;$	**5**	;$	))))	))))
Toluene	108-88-3	$	=g/L	**4**	$	;$	))))	))))
Ethylbenzene	100-41-4	$	=g/L	**2**	**5**	**3**	))))	))))
meta- & para-Xylene	108-38-3 106-42-3	$	=g/L	<4	**6**	**5**	))))	))))
Styrene	100-42-5	(	=g/L	;(	;(	;(	))))	))))
ortho-Xylene	95-47-6	$	=g/L	;$	**3**	;$	))))	))))
Isopropylbenzene	98-82-8	(	=g/L	;(	;(	;(	))))	))))
n-Propylbenzene	103-65-1	(	=g/L	;(	;(	;(	))))	))))
1.3.5-Trimethylbenzene	108-67-8	(	=g/L	;(	;(	;(	))))	))))
sec-Butylbenzene	135-98-8	(	=g/L	;(	;(	;(	))))	))))
1.2.4-Trimethylbenzene	95-63-6	(	=g/L	;(	**5**	**7**	))))	))))
tert-Butylbenzene	98-06-6	(	=g/L	;(	;(	;(	))))	))))
p-Isopropyltoluene	99-87-6	(	=g/L	;(	;(	**16**	))))	))))
n-Butylbenzene	104-51-8	(	=g/L	;(	;(	;(	))))	))))
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	(0	=g/L	;(0	;(0	;(0	))))	))))
2-Butanone (MEK)	78-9!)!	(0	=g/L	;(0	;(0	;(0	))))	))))
4-Methyl-2-pentanone (MIBK)	108-10-1	(0	=g/L	;(0	;(0	;(0	))))	))))
2-Hexanone (MBK)	(91-78-6	(0	=g/L	;(0	;(0	;(0	))))	))))
EP074C: Sulfonated Compounds								

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	Dup01
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010
EP074C: Sulfonated Compounds - Continued								
Carbon disulfide	75-15-0	(	=g/L	;(	;(	;(	))))	))))
EP074D: Fumigants								
2.2-Dichloropropane	(94-20)/	(	=g/L	;(	;(	;(	))))	))))
1.2-Dichloropropane	78-87-5	(	=g/L	;(	;(	;(	))))	))))
cis-1.3-Dichloropropylene	10061-01-5	(	=g/L	;(	;(	;(	))))	))))
trans-1.3-Dichloropropylene	10061-02-6	(	=g/L	;(	;(	;(	))))	))))
1.2-Dibromoethane (EDB)	106-93-4	(	=g/L	;(	;(	;(	))))	))))
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	(0	=g/L	;(0	;(0	;(0	))))	))))
Chloromethane	74-87-3	(0	=g/L	;(0	;(0	;(0	))))	))))
Vinyl chloride	/() 01-4	(0	=g/L	;(0	;(0	;(0	))))	))))
Bromomethane	74-83-9	(0	=g/L	;(0	;(0	;(0	))))	))))
Chloroethane	/() 00)!	(0	=g/L	;(0	;(0	;(0	))))	))))
Trichlorofluoromethane	75-69-4	(0	=g/L	;(0	;(0	;(0	))))	))))
1.1-Dichloroethene	75-35-4	(	=g/L	;(	;(	;(	))))	))))
Iodomethane	74-88-4	(	=g/L	;(	;(	;(	))))	))))
trans-1.2-Dichloroethene	156-60)(	(	=g/L	;(	;(	;(	))))	))))
1.1-Dichloroethane	75-34-3	(	=g/L	;(	;(	;(	))))	))))
cis-1.2-Dichloroethene	156-59)$	(	=g/L	;(	;(	;(	))))	))))
1.1.1-Trichloroethane	71-55-6	(	=g/L	;(	;(	;(	))))	))))
1.1-Dichloropropylene	563-58-6	(	=g/L	;(	;(	;(	))))	))))
Carbon Tetrachloride	56-23-5	(	=g/L	;(	;(	;(	))))	))))
1.2-Dichloroethane	10/) 06-2	(	=g/L	;(	;(	;(	))))	))))
Trichloroethene	/ 9)01-6	(	=g/L	;(	;(	;(	))))	))))
Dibromomethane	74-9()!	(	=g/L	;(	;(	;(	))))	))))
1.1.2-Trichloroethane	/ 9)00)(	(	=g/L	;(	;(	;(	))))	))))
1.3-Dichloropropane	142-28-9	(	=g/L	;(	;(	;(	))))	))))
Tetrachloroethene	127-18-4	(	=g/L	;(	;(	;(	))))	))))
1.1.1.2-Tetrachloroethane	630)$0-6	(	=g/L	;(	;(	;(	))))	))))
trans-1.4-Dichloro-2-butene	110-57-6	(	=g/L	;(	;(	;(	))))	))))
cis-1.4-Dichloro-2-butene	1476-11-5	(	=g/L	;(	;(	;(	))))	))))
1.1.2.2-Tetrachloroethane	/ 9-34-5	(	=g/L	;(	;(	;(	))))	))))
1.2.3-Trichloropropane	96-18-4	(	=g/L	;(	;(	;(	))))	))))
Pentachloroethane	76-01-7	(	=g/L	;(	;(	;(	))))	))))
1.2-Dibromo-3-chloropropane	96-12-8	(	=g/L	;(	;(	;(	))))	))))
Hexachlorobutadiene	87-68-3	(	=g/L	;(	;(	;(	))))	))))
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90)/	(	=g/L	;(	7	;(	))))	))))

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	Dup01
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010
EP074F: Halogenated Aromatic Compounds - Continued								
Bromobenzene	108-86-1	(	=g/L	;(	;(	;(	))))	))))
2-Chlorotoluene	95-49-8	(	=g/L	;(	;(	;(	))))	))))
4-Chlorotoluene	106-43-4	(	=g/L	;(	;(	;(	))))	))))
1.3-Dichlorobenzene	541-73-1	(	=g/L	;(	;(	;(	))))	))))
1.4-Dichlorobenzene	106-46-7	(	=g/L	;(	;(	;(	))))	))))
1.2-Dichlorobenzene	9()(0-1	(	=g/L	;(	;(	;(	))))	))))
1.2.4-Trichlorobenzene	120-82-1	(	=g/L	;(	;(	;(	))))	))))
1.2.3-Trichlorobenzene	87-61-6	(	=g/L	;(	;(	;(	))))	))))
EP074G: Trihalomethanes								
Chloroform	67-66-3	(	=g/L	;(	;(	;(	))))	))))
Bromodichloromethane	75-27-4	(	=g/L	;(	;(	;(	))))	))))
Dibromochloromethane	124-48-1	(	=g/L	;(	;(	;(	))))	))))
Bromoform	/()$()$	(	=g/L	;(	;(	;(	))))	))))
EP075(SIM)A: Phenolic Compounds								
Phenol	108-9()$	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2-Chlorophenol	95-57-8	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2-Methylphenol	95-48-7	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
3- & 4-Methylphenol	1319)//)!	$,0	=g/L	;$, 0	;$, 0	;/,/	))))	))))
2-Nitrophenol	88-75-5	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2.4-Dimethylphenol	105-67-9	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2.4-Dichlorophenol	120-83-2	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2.6-Dichlorophenol	87-65-0	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
4-Chloro-3-Methylphenol	(9)(0)/	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2.4.6-Trichlorophenol	88-06-2	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
2.4.5-Trichlorophenol	9() 95-4	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Pentachlorophenol	87-86-5	$,0	=g/L	;$, 0	;$, 0	;/,/	))))	))))
2.3.4.6-Tetrachlorophenol	58-90)$	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20)!	1.0	=g/L	**2.6**	**6.7**	<3.8	))))	))))
2-Methylnaphthalene	91-57-6	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Acenaphthylene	$08-96-8	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Acenaphthene	83-32-9	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Fluorene	86-73-7	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Phenanthrene	85-01-8	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Anthracene	120-12-7	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Fluoranthene	$06-44-0	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Pyrene	129)00)0	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Benz(a)anthracene	56-55-3	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	Dup01
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-006	EB0914886-007	EB0914886-008	EB0914886-009	EB0914886-010
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Benzo(b)fluoranthene	$0() 99)$	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Benzo(k)fluoranthene	$0/) 08-9	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Benzo(a)pyrene	(0-32-8	0,(	=g/L	; 0,(	; 0,(	<3.8	))))	))))
Indeno(1.2.3.cd)pyrene	19!)! 9)(	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Dibenz(a.h)anthracene	(!)/ 0)!	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
Benzo(g.h.i)perylene	191-24-2	1.0	=g/L	<1.0	<1.0	<3.8	))))	))))
^ Sum of polycyclic aromatic hydrocarbons	))))	1.0	=g/L	**2.6**	**6.7**	<3.8	))))	))))
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	))))	$0	=g/L	**30**	**50**	**30**	;$ 0	**30**
C10 - C14 Fraction	))))	(0	=g/L	**50**	**800**	))))	))))	))))
C10 - C14 Fraction	))))	(0	=g/L	))))	))))	**580**	**60**	**450**
C15 - C28 Fraction	))))	100	=g/L	**180**	**1480**	))))	))))	))))
C15 - C28 Fraction	))))	100	=g/L	))))	))))	**1700**	**100**	**1200**
C29 - C36 Fraction	))))	(0	=g/L	;(0	**170**	))))	))))	))))
C29 - C36 Fraction	))))	(0	=g/L	))))	))))	**710**	;(0	**210**
^ C10 - C36 Fraction (sum)	))))	(0	=g/L	**240**	**2450**	))))	))))	))))
^ C10 - C36 Fraction (sum)	))))	(0	=g/L	))))	))))	**2990**	**180**	**1820**
EP080: BTEX								
Benzene	71-43-2	1	=g/L	))))	))))	))))	<1	**1**
Toluene	108-88-3	$	=g/L	))))	))))	))))	;$	**4**
Ethylbenzene	100-41-4	$	=g/L	))))	))))	))))	;$	**2**
meta- & para-Xylene	108-38-3 106-42-3	$	=g/L	))))	))))	))))	;$	;$
ortho-Xylene	95-47-6	$	=g/L	))))	))))	))))	;$	;$
EP070S:TPH Surrogates - Speciation								
2-Fluorobiphenyl	321-60-8	0.1	>	**99.4**	**107**	))))	))))	))))
2-Bromonaphthalene	580-13-2	0.1	>	**108**	**112**	))))	))))	))))
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17060)0/) 0	0.1	>	**89.4**	**85.4**	**85.2**	))))	))))
Toluene-D8	$037-26-5	0.1	>	**94.8**	**89.8**	**89.5**	))))	))))
4-Bromofluorobenzene	460)00-4	0.1	>	**97.0**	**93.4**	**92.2**	))))	))))
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	>	**8.5**	**13.2**	**26.8**	))))	))))
2-Chlorophenol-D4	9! 951-73-6	0.1	>	**27.6**	**34.0**	**63.4**	))))	))))
2.4.6-Tribromophenol	118-79-6	0.1	>	**72.5**	**87.3**	**104**	))))	))))
EP075(SIM)T: PAH Surrogates								

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Analytical Results

Sub-Matrix: WATER				Client sample ID	MW06	MW07	MW08	MW09	Dup01
				Client sampling date / time	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
Compound	*CAS Number*	*LOR*	*Unit*		**EB0914886-006**	**EB0914886-007**	**EB0914886-008**	**EB0914886-009**	**EB0914886-010**
EP075(SIM)T: PAH Surrogates - Continued									
2-Fluorobiphenyl	321-60-8	0.1	>		**55.8**	**77.4**	**72.4**	))))	))))
Anthracene-d10	1719)06-8	0.1	>		**80.9**	**97.0**	**92.7**	))))	))))
4-Terphenyl-d14	1718-51-0	0.1	>		**79.3**	**92.9**	**89.6**	))))	))))
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060)0/) 0	0.1	>		**100**	**95.1**	**94.7**	**103**	**100**
Toluene-D8	$037-26-5	0.1	>		**97.6**	**92.4**	**92.1**	**97.2**	**92.6**
4-Bromofluorobenzene	460)00-4	0.1	>		**99.0**	**95.4**	**94.2**	**96.0**	**93.0**

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Dup02	CR13	CR14	CR15	Drain 1
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-011	EB0914886-012	EB0914886-013	EB0914886-014	EB0914886-015
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0,001	mg/L	**0.007**	**0.022**	; 0,001	**0.002**	; 0,001
Cadmium	7440-43-9	0,0001	mg/L	**0.0004**	**0.0004**	; 0,0001	**0.0002**	**0.0011**
Chromium	7440-47-3	0,001	mg/L	**0.011**	; 0,001	; 0,001	<0,001	**0.002**
Copper	7440)(0-8	0,001	mg/L	**0.015**	**0.007**	**0.006**	**0.002**	**0.020**
Lead	7439)92-1	0,001	mg/L	**0.001**	; 0,001	; 0,001	<0,001	**0.013**
Nickel	7440)0$)0	0,001	mg/L	**0.046**	**0.001**	**0.002**	**0.002**	**0.002**
Zinc	7440-66-6	0,00(	mg/L	**0.016**	**0.025**	**0.015**	**0.057**	**0.090**
EG035F: Dissolved Mercury by FIMS								
Mercury	7439)97-6	0,0001	mg/L	; 0,0001	; 0,0001	<0,0001	<0,0001	<0,0001
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	1	=g/L	))))	;$	))))	))))	;$
Toluene	108-88-3	$	=g/L	))))	;$	))))	))))	;$
Ethylbenzene	100-41-4	$	=g/L	))))	;$	))))	))))	;$
meta- & para-Xylene	108-38-3 106-42-3	$	=g/L	))))	<4	))))	))))	<4
Styrene	100-42-5	(	=g/L	))))	;(	))))	))))	;(
ortho-Xylene	95-47-6	$	=g/L	))))	;$	))))	))))	;$
Isopropylbenzene	98-82-8	(	=g/L	))))	;(	))))	))))	;(
n-Propylbenzene	103-65-1	(	=g/L	))))	;(	))))	))))	;(
1.3.5-Trimethylbenzene	108-67-8	(	=g/L	))))	;(	))))	))))	;(
sec-Butylbenzene	135-98-8	(	=g/L	))))	;(	))))	))))	;(
1.2.4-Trimethylbenzene	95-63-6	(	=g/L	))))	;(	))))	))))	;(
tert-Butylbenzene	98-06-6	(	=g/L	))))	;(	))))	))))	;(
p-Isopropyltoluene	99-87-6	(	=g/L	))))	;(	))))	))))	;(
n-Butylbenzene	104-51-8	(	=g/L	))))	;(	))))	))))	;(
EP074B: Oxygenated Compounds								
Vinyl Acetate	108-05-4	(0	=g/L	))))	;(0	))))	))))	;(0
2-Butanone (MEK)	78-9!)!	(0	=g/L	))))	;(0	))))	))))	;(0
4-Methyl-2-pentanone (MIBK)	108-10-1	(0	=g/L	))))	;(0	))))	))))	;(0
2-Hexanone (MBK)	(91-78-6	(0	=g/L	))))	;(0	))))	))))	;(0
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	(	=g/L	))))	;(	))))	))))	;(
EP074D: Fumigants								
2.2-Dichloropropane	(94-20)/	(	=g/L	))))	;(	))))	))))	;(
1.2-Dichloropropane	78-87-5	(	=g/L	))))	;(	))))	))))	;(
cis-1.3-Dichloropropylene	10061-01-5	(	=g/L	))))	;(	))))	))))	;(
trans-1.3-Dichloropropylene	10061-02-6	(	=g/L	))))	;(	))))	))))	;(
1.2-Dibromoethane (EDB)	106-93-4	(	=g/L	))))	;(	))))	))))	;(

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Dup02	CR13	CR14	CR15	Drain 1
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-011	EB0914886-012	EB0914886-013	EB0914886-014	EB0914886-015
EP074E: Halogenated Aliphatic Compounds								
Dichlorodifluoromethane	75-71-8	(0	=g/L	))))	;(0	))))	))))	;(0
Chloromethane	74-87-3	(0	=g/L	))))	;(0	))))	))))	;(0
Vinyl chloride	/() 01-4	(0	=g/L	))))	;(0	))))	))))	;(0
Bromomethane	74-83-9	(0	=g/L	))))	;(0	))))	))))	;(0
Chloroethane	/() 00)!	(0	=g/L	))))	;(0	))))	))))	;(0
Trichlorofluoromethane	75-69-4	(0	=g/L	))))	;(0	))))	))))	;(0
1.1-Dichloroethene	75-35-4	(	=g/L	))))	;(	))))	))))	;(
Iodomethane	74-88-4	(	=g/L	))))	;(	))))	))))	;(
trans-1.2-Dichloroethene	156-60)(	(	=g/L	))))	;(	))))	))))	;(
1.1-Dichloroethane	75-34-3	(	=g/L	))))	;(	))))	))))	;(
cis-1.2-Dichloroethene	156-59)$	(	=g/L	))))	;(	))))	))))	;(
1.1.1-Trichloroethane	71-55-6	(	=g/L	))))	;(	))))	))))	;(
1.1-Dichloropropylene	563-58-6	(	=g/L	))))	;(	))))	))))	;(
Carbon Tetrachloride	56-23-5	(	=g/L	))))	;(	))))	))))	;(
1.2-Dichloroethane	10/) 06-2	(	=g/L	))))	;(	))))	))))	;(
Trichloroethene	/ 9)01-6	(	=g/L	))))	;(	))))	))))	;(
Dibromomethane	74-9()!	(	=g/L	))))	;(	))))	))))	;(
1.1.2-Trichloroethane	/ 9)00)(	(	=g/L	))))	;(	))))	))))	;(
1.3-Dichloropropane	142-28-9	(	=g/L	))))	;(	))))	))))	;(
Tetrachloroethene	127-18-4	(	=g/L	))))	;(	))))	))))	;(
1.1.1.2-Tetrachloroethane	630)$0-6	(	=g/L	))))	;(	))))	))))	;(
trans-1.4-Dichloro-2-butene	110-57-6	(	=g/L	))))	;(	))))	))))	;(
cis-1.4-Dichloro-2-butene	1476-11-5	(	=g/L	))))	;(	))))	))))	;(
1.1.2.2-Tetrachloroethane	/ 9-34-5	(	=g/L	))))	;(	))))	))))	;(
1.2.3-Trichloropropane	96-18-4	(	=g/L	))))	;(	))))	))))	;(
Pentachloroethane	76-01-7	(	=g/L	))))	;(	))))	))))	;(
1.2-Dibromo-3-chloropropane	96-12-8	(	=g/L	))))	;(	))))	))))	;(
Hexachlorobutadiene	87-68-3	(	=g/L	))))	;(	))))	))))	;(
EP074F: Halogenated Aromatic Compounds								
Chlorobenzene	108-90)/	(	=g/L	))))	;(	))))	))))	;(
Bromobenzene	108-86-1	(	=g/L	))))	;(	))))	))))	;(
2-Chlorotoluene	95-49-8	(	=g/L	))))	;(	))))	))))	;(
4-Chlorotoluene	106-43-4	(	=g/L	))))	;(	))))	))))	;(
1.3-Dichlorobenzene	541-73-1	(	=g/L	))))	;(	))))	))))	;(
1.4-Dichlorobenzene	106-46-7	(	=g/L	))))	;(	))))	))))	;(
1.2-Dichlorobenzene	9()(0-1	(	=g/L	))))	;(	))))	))))	;(
1.2.4-Trichlorobenzene	120-82-1	(	=g/L	))))	;(	))))	))))	;(
1.2.3-Trichlorobenzene	87-61-6	(	=g/L	))))	;(	))))	))))	;(

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Dup02	CR13	CR14	CR15	Drain 1
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-011	EB0914886-012	EB0914886-013	EB0914886-014	EB0914886-015
EP074G: Trihalomethanes								
Chloroform	67-66-3	(	=g/L	))))	;(	))))	))))	;(
Bromodichloromethane	75-27-4	(	=g/L	))))	;(	))))	))))	;(
Dibromochloromethane	124-48-1	(	=g/L	))))	;(	))))	))))	;(
Bromoform	/()$()$	(	=g/L	))))	;(	))))	))))	;(
EP075(SIM)A: Phenolic Compounds								
Phenol	108-9()$	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2-Chlorophenol	95-57-8	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2-Methylphenol	95-48-7	1.0	=g/L	))))	<1.0	))))	))))	<1.0
3- & 4-Methylphenol	1319)//)!	$,0	=g/L	))))	;$, 0	))))	))))	;$, 0
2-Nitrophenol	88-75-5	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2.4-Dimethylphenol	105-67-9	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2.4-Dichlorophenol	120-83-2	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2.6-Dichlorophenol	87-65-0	1.0	=g/L	))))	<1.0	))))	))))	<1.0
4-Chloro-3-Methylphenol	(9)(0)/	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2.4.6-Trichlorophenol	88-06-2	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2.4.5-Trichlorophenol	9() 95-4	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Pentachlorophenol	87-86-5	$,0	=g/L	))))	;$, 0	))))	))))	;$, 0
2.3.4.6-Tetrachlorophenol	58-90)$	1.0	=g/L	))))	<1.0	))))	))))	<1.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20)!	1.0	=g/L	))))	<1.0	))))	))))	<1.0
2-Methylnaphthalene	91-57-6	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Acenaphthylene	$08-96-8	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Acenaphthene	83-32-9	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Fluorene	86-73-7	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Phenanthrene	85-01-8	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Anthracene	120-12-7	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Fluoranthene	$06-44-0	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Pyrene	129)00)0	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Benz(a)anthracene	56-55-3	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Chrysene	218-01-9	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Benzo(b)fluoranthene	$0() 99)$	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Benzo(k)fluoranthene	$0/) 08-9	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Benzo(a)pyrene	(0-32-8	0,(	=g/L	))))	; 0,(	))))	))))	; 0,(
Indeno(1.2.3.cd)pyrene	19!)! 9)(	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Dibenz(a.h)anthracene	(!)/ 0)!	1.0	=g/L	))))	<1.0	))))	))))	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	=g/L	))))	<1.0	))))	))))	<1.0
^ Sum of polycyclic aromatic hydrocarbons	))))	1.0	=g/L	))))	<1.0	))))	))))	<1.0

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Dup02	CR13	CR14	CR15	Drain 1
				Client sampling date / time: 17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00	17-SEP)$009 15:00
				EB0914886-011	EB0914886-012	EB0914886-013	EB0914886-014	EB0914886-015
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	))))	$0	=g/L	60	;$ 0	;$ 0	;$ 0	;$ 0
C10 - C14 Fraction	))))	(0	=g/L	550	70	;(0	;(0	;(0
C15 - C28 Fraction	))))	100	=g/L	1400	500	<100	<100	200
C29 - C36 Fraction	))))	(0	=g/L	280	530	;(0	;(0	80
^ C10 - C36 Fraction (sum)	))))	(0	=g/L	2280	1110	))))	))))	330
C10 - C36 Fraction (sum)	))))	(0	=g/L	))))	))))	;(0	;(0	))))
EP080: BTEX								
Benzene	71-43-2	1	=g/L	6	))))	<1	<1	))))
Toluene	108-88-3	$	=g/L	;$	))))	;$	;$	))))
Ethylbenzene	100-41-4	$	=g/L	7	))))	;$	;$	))))
meta- & para-Xylene	108-38-3 106-42-3	$	=g/L	6	))))	;$	;$	))))
ortho-Xylene	95-47-6	$	=g/L	4	))))	;$	;$	))))
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	17060)0/) 0	0.1	>	))))	93.4	))))	))))	97.4
Toluene-D8	$037-26-5	0.1	>	))))	92.7	))))	))))	92.2
4-Bromofluorobenzene	460)00-4	0.1	>	))))	90.7	))))	))))	86.6
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	>	))))	32.0	))))	))))	42.6
2-Chlorophenol-D4	9! 951-73-6	0.1	>	))))	75.9	))))	))))	94.3
2.4.6-Tribromophenol	118-79-6	0.1	>	))))	91.2	))))	))))	110
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	>	))))	103	))))	))))	91.5
Anthracene-d10	1719)06-8	0.1	>	))))	82.0	))))	))))	86.1
4-Terphenyl-d14	1718-51-0	0.1	>	))))	80.3	))))	))))	90.2
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060)0/) 0	0.1	>	98.3	104	105	105	109
Toluene-D8	$037-26-5	0.1	>	92.6	95.4	96.3	95.6	95.1
4-Bromofluorobenzene	460)00-4	0.1	>	90.6	92.6	92.0	91.2	88.4

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Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP070S:TPH Surrogates - Speciation			
2-Fluorobiphenyl	321-60-8	60	140
2-Bromonaphthalene	580-13-2	60	140
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060)0/) 0	80	120
Toluene-D8	$037-26-5	88	110
4-Bromofluorobenzene	460)00-4	86	115
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	94
2-Chlorophenol-D4	9! 951-73-6	$!	134
2.4.6-Tribromophenol	118-79-6	10	123
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	43	116
Anthracene-d10	1719)06-8	$/	133
4-Terphenyl-d14	1718-51-0	!!	141
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060)0/) 0	80	120
Toluene-D8	$037-26-5	88	110
4-Bromofluorobenzene	460)00-4	86	115

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0914886**	˜ @De	: CDEBCC
CAenJ	: **SINCLAIR KNIGHT MERZ**	G@HEI@JEI	: EnvilEnmenJ@AD BE BliBH@e
CE J@J	: MSD? ˇˆ D ANAS	CE J@J	: TimDKiAmiBeI
ˆ °° IeBB	: EASTERN BUSWAY PROJECT PO BOX 3848 ST- BRISBANE 4101	ˆ °° IeBB	: 32 S1and Street Stafford QLD Australia 4053
E-mail	) ,ˇˆˇ%-%,+./ +.ˇ$	E-mail	) Services.Brisbane@alsenviro.com
Telep1 ˆ°	) +61 07 3026 7286	Telep1 ˆ°	) +61-7-3243 7222
6ˇ/%'+'&°	) +61 07 3026 7306	6ˇ/%'+'&°	) +61-7-3243 7218
Project	) QE09537	QC Level	) NEPM 1999 Sc1edule B(3) and ALS QCS3 requirement
Site	) Cronulla Park		
C-O-C number	) ****	Date Samples Received	) 18-SEP-2009
Sampler	) ****	Issue Date	) 01-OCT-2009
Order number	) ****		
		No. of samples received	) 16
Quote number	) EN/003/09	No. of samples analysed	) 15

T1is report supersedes any previous ¸°2¸˝(s) ?˝˝1 t1is reference. Results apply to ˝1e %ˇ+2&˚(s) as submitted. All pages of ˝1is report 1ave been /1ecked and approved ˜ ¸ release.

T1is Quality Control Report contains t1e following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- 9°˝ 1od Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

T1is document is issued in accordance wit1 NATA accreditation requirements.

Accredited for compliance wit1 ISO/IEC 17025.

Signatories

T1is document 1as been electronically signed by ˝1e ˇ$˝1orized signatories indicated below. Electronic signing 1as 1°°ˆ carried out in compliance wit1 procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Kim McCabe	Senior Inorganic C1°+'%˝	Inorganics
Matt Frost	Organic Instrument C1°+'%˝	Organics
Nancy Wang	Instrument C1°+'%˝	Organics
Step1en - '%& 2	Senior Inorganic C1°+'%˝	Inorganics

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General Comments

T1e analytical procedures used by ˝1e Environmental Division 1ave been developed from °%˝˜1&'%ed internationally recognized procedures %$/1 as ˝1ose 2$1&'%ed by ˝1e USEPA, AP- AG AS and NEPM. In 1ouse developed procedures are employed in t1e absence of documented standards or by client request.

W1ere moisture determination 1as been performed, results are reported on a dry weig1t basis.

W1ere a reported less t1an (<) result is 1'@er t1an t1e LOR, t1is may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

W1ere t1e LOR of a reported result differs from standard LOR, t1is may be due to 1'@ moisture content, insufficient sample (reduced weig1t employed) or matrix interference.

Key : Anonymous = Refers to samples w1'/ 1 are not specifically part of t1is work order but formed part of t1e QC process lot
CAS Number = CAS registry number from database maintained by C1emical Abstracts Services. T1e C1emical Abstracts Service is a division of t1e American C1emical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

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Laboratory Duplicate (DUP) Report

T1e quality control term Laboratory Duplicate refers to ˇ randomly selected intralaboratory split. Laboratory duplicates provide information regarding +°˝ 1od precision and sample 1eterogeneity. T1e permitted ranges for ˝1e Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS 9°˝ 1od QWI-EN/38 and are dependent on ˝1e magnitude of results in comparison to ˝1e 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 (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 1111406)									
EB0914767-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	+@="	0.0002	0.0002	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	+@="	0.001	0.002	0.0	No Limit
		EG020A-F: C1¸ +'$+	7440-47-3	0.001	+@="	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	+@="	0.034	0.035	0.0	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	+@="	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	+@="	0.001	0.001	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	+@="	0.026	0.025	0.0	No Limit
EB0914886-005	MW05	EG020A-F: Cadmium	7440-43-9	0.0001	+@="	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	+@="	0.003	0.003	0.0	No Limit
		EG020A-F: C1¸ +'$+	7440-47-3	0.001	+@="	0.019	0.017	10.7	0% - 50%
		EG020A-F: Copper	7440-50-8	0.001	+@="	0.004	0.004	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	+@="	0.001	0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	+@="	0.012	0.012	0.0	0% - 50%
		EG020A-F: Zinc	7440-66-6	0.005	+@="	0.018	0.017	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 1111405)									
EB0914767-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	+@="	<0.0001	<0.0001	0.0	No Limit
EB0914886-005	MW05	EG035F: Mercury	7439-97-6	0.0001	+@="	<0.0001	<0.0001	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: Benzene	71-43-2	1	M@="	H˜	H˜	0.0	No Limit
		EP074: Toluene	108-88-3	˜	M@="	H˜	H˜	0.0	No Limit
		EP074: Et1>&1°ˆC°ˆ°	100-41-4	˜	M@="	H˜	H˜	0.0	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	˜	M@="	<4	<4	0.0	No Limit
		EP074: ort1o-Xylene	95-47-6	˜	M@="	H˜	H˜	0.0	No Limit
		EP074: Styrene	100-42-5	(	M@="	H(	H(	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	(	M@="	H(	H(	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.3.5-Trimet1>&1°ˆC°ˆ°	108-67-8	(	M@="	H(	H(	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2.4-Trimet1>&1°ˆC°ˆ°	95-63-6	(	M@="	H(	H(	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	(	M@="	H(	H(	0.0	No Limit
		EP074: p-Isopropyltoluene	99-87-6	(	M@="	H(	H(	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	(	M@="	H(	H(	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: Vinyl Acetate	108-05-4	50	M@="	<50	<50	0.0	No Limit

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Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074B: Oxygenated Compounds (QC Lot: 1107866) - continued									
EB0914886-003	MW03	EP074: 2-Butanone (MEK)	78-93-3	50	M@="	<50	<50	0.0	No Limit
		EP074: 4-Met1yl-2-pentanone (MIBK)	108-10-1	50	M@="	<50	<50	0.0	No Limit
		EP074: 2-- exanone (MBK)	591-78-6	50	M@="	<50	<50	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: Carbon disulfide	75-15-0	(	M@="	H(	H(	0.0	No Limit
EP074D: Fumigants (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: 2.2-Dic1& ¸ 2¸ 2˜^°	594-20-7	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2-Dic1& ¸ 2¸ 2˜^°	78-87-5	(	M@="	H(	H(	0.0	No Limit
		EP074: cis-1.3-Dic1& ¸ 2¸ 2>&°^°	10061-01-5	(	M@="	H(	H(	0.0	No Limit
		EP074: trans-1.3-Dic1& ¸ 2¸ 2>&°^°	10061-02-6	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2-Dibromoet1ane (EDB)	106-93-4	(	M@="	H(	H(	0.0	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: 1.1-Dic1& ¸ °˝ 1°^°	75-35-4	(	M@="	H(	H(	0.0	No Limit
		EP074: Iodomet1˜^°	74-88-4	(	M@="	H(	H(	0.0	No Limit
		EP074: trans-1.2-Dic1& ¸ °˝ 1°^°	156-60-5	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.1-Dic1& ¸ °˝ 1˜^°	75-34-3	(	M@="	H(	H(	0.0	No Limit
		EP074: cis-1.2-Dic1& ¸ °˝ 1°^°	156-59-2	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.1.1-Tric1& ¸ °˝ 1˜^°	71-55-6	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.1-Dic1& ¸ 2¸ 2>&°^°	563-58-6	(	M@="	H(	H(	0.0	No Limit
		EP074: Carbon Tetrac1& ¸'˚°	56-23-5	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2-Dic1& ¸ °˝ 1˜^°	107-06-2	(	M@="	H(	H(	0.0	No Limit
		EP074: Tric1& ¸ °˝ 1°^°	79-01-6	(	M@="	H(	H(	0.0	No Limit
		EP074: Dibromomet1˜^°	74-95-3	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.1.2-Tric1& ¸ °˝ 1˜^°	79-00-5	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.3-Dic1& ¸ 2¸ 2˜^°	142-28-9	(	M@="	H(	H(	0.0	No Limit
		EP074: Tetrac1& ¸ °˝ 1°^°	127-18-4	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.1.1.2-Tetrac1& ¸ °˝ 1˜^°	630-20-6	(	M@="	H(	H(	0.0	No Limit
		EP074: trans-1.4-Dic1& ¸ *˜*1$˝°^°	110-57-6	(	M@="	H(	H(	0.0	No Limit
		EP074: cis-1.4-Dic1& ¸ *˜*1$˝°^°	1476-11-5	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.1.2.2-Tetrac1& ¸ °˝ 1˜^°	79-34-5	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2.3-Tric1& ¸ 2¸ 2˜^°	96-18-4	(	M@="	H(	H(	0.0	No Limit
		EP074: Pentac1& ¸ °˝ 1˜^°	76-01-7	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2-Dibromo-3-c1& ¸ 2¸ 2˜^°	96-12-8	(	M@="	H(	H(	0.0	No Limit
		EP074: - °B˜/ 1& ¸ 1$˝˜'°^°	87-68-3	(	M@="	H(	H(	0.0	No Limit
		EP074: Dic1& ¸ '˜&$ ¸ +°˝ 1˜^°	75-71-8	50	M@="	<50	<50	0.0	No Limit
		EP074: C1& ¸ +°˝ 1˜^°	74-87-3	50	M@="	<50	<50	0.0	No Limit
		EP074: Vinyl c1& ¸'˚°	75-01-4	50	M@="	<50	<50	0.0	No Limit
		EP074: Bromomet1˜^°	74-83-9	50	M@="	<50	<50	0.0	No Limit
		EP074: C1& ¸ °˝ 1˜^°	75-00-3	50	M@="	<50	<50	0.0	No Limit

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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 (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 1107866) - continued									
EB0914886-003	MW03	EP074: Tric1& ¸ ˜&$ ¸ +°˝ 1˜°°	75-69-4	50	M@="	<50	<50	0.0	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: C1& ¸ 1°˜C°°°	108-90-7	(	M@="	H(	H(	0.0	No Limit
		EP074: Bromobenzene	108-86-1	(	M@="	H(	H(	0.0	No Limit
		EP074: 2-C1& ¸ ˝ &$°°°	95-49-8	(	M@="	H(	H(	0.0	No Limit
		EP074: 4-C1& ¸ ˝ &$°°°	106-43-4	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.3-Dic1& ¸ 1°˜C°°°	541-73-1	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.4-Dic1& ¸ 1°˜C°°°	106-46-7	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2-Dic1& ¸ 1°˜C°°°	95-50-1	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2.4-Tric1& ¸ 1°˜C°°°	120-82-1	(	M@="	H(	H(	0.0	No Limit
		EP074: 1.2.3-Tric1& ¸ 1°˜C°°°	87-61-6	(	M@="	H(	H(	0.0	No Limit
EP074G: Trihalomethanes (QC Lot: 1107866)									
EB0914886-003	MW03	EP074: C1& ¸ ˜ ¸ +	67-66-3	(	M@="	H(	H(	0.0	No Limit
		EP074: Bromodic1& ¸ +°˝ 1˜°°	75-27-4	(	M@="	H(	H(	0.0	No Limit
		EP074: Dibromoc1& ¸ +°˝ 1˜°°	124-48-1	(	M@="	H(	H(	0.0	No Limit
		EP074: Bromoform	5(˜˝(*˘	(	M@="	H(	H(	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1107865)									
EB0914886-001	MW01	EP080: C6 - C9 Fraction	****	20	M@="	<20	<20	0.0	No Limit
EB0914886-011	Dup02	EP080: C6 - C9 Fraction	****	20	M@="	60	60	0.0	No Limit
EP080: BTEX (QC Lot: 1107865)									
EB0914886-001	MW01	EP080: Benzene	71-43-2	1	M@="	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	˘	M@="	H˘	H˘	0.0	No Limit
		EP080: Et1>&1°˜C°°°	100-41-4	˘	M@="	H˘	H˘	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	˘	M@="	H˘	H˘	0.0	No Limit
		EP080: ort1o-Xylene	95-47-6	˘	M@="	H˘	H˘	0.0	No Limit
EB0914886-011	Dup02	EP080: Benzene	71-43-2	1	M@="	4	4	0.0	No Limit
		EP080: Toluene	108-88-3	˘	M@="	H˘	H˘	0.0	No Limit
		EP080: Et1>&1°˜C°°°	100-41-4	˘	M@="	5	5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	˘	M@="	4	5	0.0	No Limit
		EP080: ort1o-Xylene	95-47-6	˘	M@="	4	4	0.0	No Limit

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

T1e quality control term 9℃ 1od / Laboratory Blank refers to an analyte free matrix to ?1'/1 all reagents are added in ˝1e same volumes or proportions as used in standard sample preparation. T1e purpose of ˝1is QC parameter is to +onitor potential laboratory contamination. T1e quality control term Laboratory Control Sample (LCS) refers to ˇ certified reference material, or a known interference free +atrix spiked ?˝1 target analytes. T1e purpose of t1is QC parameter is to monitor met1od 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 (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 1111406)								
EG020A-F: Arsenic	7440-38-2	0.001	+@="	<0.001	0.100 mg/L	106	80	124
EG020A-F: Cadmium	7440-43-9	0.0001	+@="	<0.0001	0.100 mg/L	108	89	117
EG020A-F: C1¸ +'$+	7440-47-3	0.001	+@="	<0.001	0.100 mg/L	116	85	127
EG020A-F: Copper	7440-50-8	0.001	+@="	<0.001	0.200 mg/L	106	85	119
EG020A-F: Lead	7439-92-1	0.001	+@="	<0.001	0.100 mg/L	105	88	116
EG020A-F: Nickel	7440-02-0	0.001	+@="	<0.001	0.100 mg/L	107	85	119
EG020A-F: Zinc	7440-66-6	0.005	+@="	<0.005	0.200 mg/L	112	86	130
EG035F: Dissolved Mercury by FIMS (QCLot: 1111405)								
EG035F: Mercury	7439-97-6	0.0001	+@="	<0.0001	0.010 mg/L	98.9	81	115
EP070: Total Petroleum Hydrocarbons - Speciation (QCLot: 1108610)								
EP070: Alip1atic C10-C14	****	50	M@="	<50	5400 µg/L	119	70	130
EP070: Alip1atic C15-C28	****	100	M@="	<100	17280 µg/L	86.1	70	130
EP070: Alip1atic C29-C36	****	50	M@="	<50	****	****	****	****
EP070: Aromatic C10-C14	****	50	M@="	<50	2310 µg/L	116	70	130
EP070: Aromatic C15-C28	****	100	M@="	<100	3750 µg/L	120	70	130
EP070: Aromatic C29-C36	****	50	M@="	<50	****	****	****	****
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1107866)								
EP074: Benzene	71-43-2	1	M@="	H˘	10 µg/L	89.6	5(	122
EP074: Toluene	108-88-3	˘	M@="	H˘	10 µg/L	101	71.2	124
EP074: Et1>&1°ˆC°ˆ°	100-41-4	˘	M@="	H˘	10 µg/L	95.4	54	120
EP074: meta- & para-Xylene	108-38-3 106-42-3	˘	M@="	<4	20 µg/L	84.6	68	132
EP074: Styrene	100-42-5	(	M@="	H(	10 µg/L	102	68	127
EP074: ort1o-Xylene	95-47-6	˘	M@="	H˘	10 µg/L	88.5	54	122
EP074: Isopropylbenzene	98-82-8	(	M@="	H(	10 µg/L	85.5	74	123
EP074: n-Propylbenzene	103-65-1	(	M@="	H(	10 µg/L	83.5	48	125
EP074: 1.3.5-Trimet1>&1°ˆC°ˆ°	108-67-8	(	M@="	H(	10 µg/L	87.6	74	121
EP074: sec-Butylbenzene	135-98-8	(	M@="	H(	10 µg/L	89.8	5˘	124
EP074: 1.2.4-Trimet1>&1°ˆC°ˆ°	95-63-6	(	M@="	H(	10 µg/L	88.4	73.5	124
EP074: tert-Butylbenzene	98-06-6	(	M@="	H(	10 µg/L	89.0	71.6	128
EP074: p-Isopropyltoluene	99-87-6	(	M@="	H(	10 µg/L	90.2	68.3	130
EP074: n-Butylbenzene	104-51-8	(	M@="	H(	10 µg/L	89.3	45	126
EP074B: Oxygenated Compounds (QCLot: 1107866)								
EP074: Vinyl Acetate	108-05-4	50	M@="	<50	100 µg/L	91.1	4(	147

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Recovery Limits (%)
				Result	Concentration	LCS	Low	High
EP074B: Oxygenated Compounds (QCLot: 1107866) - continued								
EP074: 2-Butanone (MEK)	78-93-3	50	M@="	<50	100 µg/L	88.0	54	130
EP074: 4-Met1yl-2-pentanone (MIBK)	108-10-1	50	M@="	<50	100 µg/L	91.9	4˜	137
EP074: 2-- exanone (MBK)	591-78-6	50	M@="	<50	100 µg/L	103	4˜	135
EP074C: Sulfonated Compounds (QCLot: 1107866)								
EP074: Carbon disulfide	75-15-0	(	M@="	H(	10 µg/L	89.6	68	135
EP074D: Fumigants (QCLot: 1107866)								
EP074: 2.2-Dic1& ¸ 2¸ 2˜^°	594-20-7	(	M@="	H(	10 µg/L	87.9	60.7	143
EP074: 1.2-Dic1& ¸ 2¸ 2˜^°	78-87-5	(	M@="	H(	10 µg/L	90.5	48.5	128
EP074: cis-1.3-Dic1& ¸ 2¸ 2>&°^°	10061-01-5	(	M@="	H(	20 µg/L	93.9	68	131
EP074: trans-1.3-Dic1& ¸ 2¸ 2>&°^°	10061-02-6	(	M@="	H(	20 µg/L	8(.˜	45	140
EP074: 1.2-Dibromoet1ane (EDB)	106-93-4	(	M@="	H(	10 µg/L	103	68.1	132
EP074E: Halogenated Aliphatic Compounds (QCLot: 1107866)								
EP074: Dic1& ¸ ˙˜&$ ¸ +°˝ 1˜^°	75-71-8	50	M@="	<50	100 µg/L	84.3	(˜	130
EP074: C1& ¸ +°˝ 1˜^°	74-87-3	50	M@="	<50	100 µg/L	93.0	43.1	130
EP074: Vinyl c1& ¸ ˙°°	75-01-4	50	M@="	<50	100 µg/L	78.2	53	144
EP074: Bromomet1˜^°	74-83-9	50	M@="	<50	100 µg/L	58.4	(5.(	130
EP074: C1& ¸ °˝ 1˜^°	75-00-3	50	M@="	<50	100 µg/L	86.2	70	137
EP074: Tric1& ¸ ˜&$ ¸ +°˝ 1˜^°	75-69-4	50	M@="	<50	100 µg/L	89.8	64	135
EP074: 1.1-Dic1& ¸ °˝ 1°^°	75-35-4	(	M@="	H(	10 µg/L	85.8	63.9	135
EP074: Iodomet1˜^°	74-88-4	(	M@="	H(	10 µg/L	78.7	(5.˜	130
EP074: trans-1.2-Dic1& ¸ °˝ 1°^°	156-60-5	(	M@="	H(	10 µg/L	87.7	48	128
EP074: 1.1-Dic1& ¸ °˝ 1˜^°	75-34-3	(	M@="	H(	10 µg/L	88.6	64	136
EP074: cis-1.2-Dic1& ¸ °˝ 1°^°	156-59-2	(	M@="	H(	10 µg/L	58.5	71	128
EP074: 1.1.1-Tric1& ¸ °˝ 1˜^°	71-55-6	(	M@="	H(	10 µg/L	91.7	68.4	135
EP074: 1.1-Dic1& ¸ 2¸ 2>&°^°	563-58-6	(	M@="	H(	10 µg/L	89.6	71.4	127
EP074: Carbon Tetrac1& ˙°°	56-23-5	(	M@="	H(	10 µg/L	91.9	64	134
EP074: 1.2-Dic1& ¸ °˝ 1˜^°	107-06-2	(	M@="	H(	10 µg/L	88.8	68	134
EP074: Tric1& ¸ °˝ 1°^°	79-01-6	(	M@="	H(	10 µg/L	90.7	5˜	127
EP074: Dibromomet1˜^°	74-95-3	(	M@="	H(	10 µg/L	91.6	63.9	136
EP074: 1.1.2-Tric1& ¸ °˝ 1˜^°	79-00-5	(	M@="	H(	10 µg/L	114	48.˜	133
EP074: 1.3-Dic1& ¸ 2¸ 2˜^°	142-28-9	(	M@="	H(	10 µg/L	102	73.7	130
EP074: Tetrac1& ¸ °˝ 1°^°	127-18-4	(	M@="	H(	10 µg/L	103	73.8	132
EP074: 1.1.1.2-Tetrac1& ¸ °˝ 1˜^°	630-20-6	(	M@="	H(	10 µg/L	118	81	123
EP074: trans-1.4-Dic1& ¸ *˜*1$˝°^°	110-57-6	(	M@="	H(	10 µg/L	97.4	˜4	130
EP074: cis-1.4-Dic1& ¸ *˜*1$˝°^°	1476-11-5	(	M@="	H(	10 µg/L	92.3	51.1	130
EP074: 1.1.2.2-Tetrac1& ¸ °˝ 1˜^°	79-34-5	(	M@="	H(	10 µg/L	106	5˜	133
EP074: 1.2.3-Tric1& ¸ 2¸ 2˜^°	96-18-4	(	M@="	H(	10 µg/L	95.8	(8	148
EP074: Pentac1& ¸ °˝ 1˜^°	76-01-7	(	M@="	H(	10 µg/L	85.5	68	138
EP074: 1.2-Dibromo-3-c1& ¸ 2¸ 2˜^°	96-12-8	(	M@="	H(	10 µg/L	83.0	(˜	150

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP074E: Halogenated Aliphatic Compounds (QCLot: 1107866) - continued								
EP074: - °B˘/ 1&˛1$˝˙˚°˚°	87-68-3	(	M@="	H(	10 µg/L	99.0	4˘	142
EP074F: Halogenated Aromatic Compounds (QCLot: 1107866)								
EP074: C1&˛1°ˆC°ˆ°	108-90-7	(	M@="	H(	10 µg/L	101	55	120
EP074: Bromobenzene	108-86-1	(	M@="	H(	10 µg/L	88.3	54	122
EP074: 2-C1&˛˝&$°ˆ°	95-49-8	(	M@="	H(	10 µg/L	89.5	75.3	124
EP074: 4-C1&˛˝&$°ˆ°	106-43-4	(	M@="	H(	10 µg/L	91.6	5(	120
EP074: 1.3-Dic1&˛1°ˆC°ˆ°	541-73-1	(	M@="	H(	10 µg/L	89.9	5(.˘	120
EP074: 1.4-Dic1&˛1°ˆC°ˆ°	106-46-7	(	M@="	H(	10 µg/L	89.9	76.1	119
EP074: 1.2-Dic1&˛1°ˆC°ˆ°	95-50-1	(	M@="	H(	10 µg/L	8˘.˘	55.5	118
EP074: 1.2.4-Tric1&˛1°ˆC°ˆ°	120-82-1	(	M@="	H(	10 µg/L	8˘.˘	68.3	128
EP074: 1.2.3-Tric1&˛1°ˆC°ˆ°	87-61-6	(	M@="	H(	10 µg/L	98.9	5(	125
EP074G: Trihalomethanes (QCLot: 1107866)								
EP074: C1&˛˜˛+	67-66-3	(	M@="	H(	10 µg/L	92.4	71.1	127
EP074: Bromodic1&˛+°˝1˝°˚	75-27-4	(	M@="	H(	10 µg/L	91.6	68	132
EP074: Dibromoc1&˛+°˝1˝°˚	124-48-1	(	M@="	H(	10 µg/L	108	48	130
EP074: Bromoform	5(*˘(*˘	(	M@="	H(	10 µg/L	101	4˘	137
EP075(SIM)A: Phenolic Compounds (QCLot: 1108171)								
EP075(SIM): P1°ˆ&	108-95-2	1	M@="	<1.0	5 µg/L	31.0	24	70
EP075(SIM): 2-C1&˛21°ˆ&	95-57-8	1	M@="	<1.0	5 µg/L	44.(	(5	105
EP075(SIM): 2-Met1>&2°ˆ&	95-48-7	1	M@="	<1.0	5 µg/L	60.6	51	98
EP075(SIM): 3- & 4-Met1>&2°ˆ&	1319-77-3	˘	M@="	<2.0	10 µg/L	48.9	45	85
EP075(SIM): 2-Nitrop1°ˆ&	88-75-5	1	M@="	<1.0	5 µg/L	74.1	48	132
EP075(SIM): 2.4-Dimet1>&2°ˆ&	105-67-9	1	M@="	<1.0	5 µg/L	48.4	44	112
EP075(SIM): 2.4-Dic1&˛21°ˆ&	120-83-2	1	M@="	<1.0	5 µg/L	78.5	60	114
EP075(SIM): 2.6-Dic1&˛21°ˆ&	87-65-0	1	M@="	<1.0	5 µg/L	90.4	(8	118
EP075(SIM): 4-C1loro-3-Met1>&2°ˆ&	59-50-7	1	M@="	<1.0	5 µg/L	8˘.4	60	120
EP075(SIM): 2.4.6-Tric1&˛21°ˆ&	88-06-2	1	M@="	<1.0	5 µg/L	97.4	(8	127
EP075(SIM): 2.4.5-Tric1&˛21°ˆ&	95-95-4	1	M@="	<1.0	5 µg/L	91.8	(8	123
EP075(SIM): Pentac1&˛21°ˆ&	87-86-5	˘	M@="	<2.0	10 µg/L	44.4	22.1	130
EP075(SIM): 2.3.4.6-Tetrac1&˛21°ˆ&	58-90-2	1	M@="	<1.0	****	****	****	****
EP075(SIM)A: Phenolic Compounds (QCLot: 1113033)								
EP075(SIM): P1°ˆ&	108-95-2	1	M@="	<1.0	5 µg/L	36.5	12.4	60
EP075(SIM): 2-C1&˛21°ˆ&	95-57-8	1	M@="	<1.0	5 µg/L	58.4	28.2	119
EP075(SIM): 2-Met1>&2°ˆ&	95-48-7	1	M@="	<1.0	5 µg/L	64.2	32.7	119
EP075(SIM): 3- & 4-Met1>&2°ˆ&	1319-77-3	˘	M@="	<2.0	5 µg/L	93.4	27.1	119
EP075(SIM): 2-Nitrop1°ˆ&	88-75-5	1	M@="	<1.0	5 µg/L	121	50.2	147
EP075(SIM): 2.4-Dimet1>&2°ˆ&	105-67-9	1	M@="	<1.0	5 µg/L	108	31.2	142
EP075(SIM): 2.4-Dic1&˛21°ˆ&	120-83-2	1	M@="	<1.0	5 µg/L	88.˘	44	143

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP075(SIM)A: Phenolic Compounds (QCLot: 1113033) - continued								
EP075(SIM): 2.6-Dic1& ¸ 21°^ &	87-65-0	1	M@="	<1.0	5 µg/L	74.9	45.4	131
EP075(SIM): 4-C1loro-3-Met1>&21°^ &	59-50-7	1	M@="	<1.0	5 µg/L	88.8	45.2	133
EP075(SIM): 2.4.6-Tric1& ¸ 21°^ &	88-06-2	1	M@="	<1.0	5 µg/L	75.0	45.8	125
EP075(SIM): 2.4.5-Tric1& ¸ 21°^ &	95-95-4	1	M@="	<1.0	5 µg/L	85.0	45.7	126
EP075(SIM): Pentac1& ¸ 21°^ &	87-86-5	˜	M@="	<2.0	5 µg/L	51.0	45.3	149
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1108171)								
EP075(SIM): Nap1˝1˜&°^°	91-20-3	1	M@="	<1.0	5 µg/L	81.2	46	113
EP075(SIM): 2-Met1>&^˜21˝1˜&°^°	91-57-6	1	M@="	<1.0	5 µg/L	86.3	50	120
EP075(SIM): Acenap1˝1>&°^°	208-96-8	1	M@="	<1.0	5 µg/L	98.3	51	118
EP075(SIM): Acenap1˝1°^°	83-32-9	1	M@="	<1.0	5 µg/L	76.0	50	114
EP075(SIM): Fluorene	86-73-7	1	M@="	<1.0	5 µg/L	84.7	((	118
EP075(SIM): P1°^˜^˝ 1¸°^°	85-01-8	1	M@="	<1.0	5 µg/L	93.5	54	110
EP075(SIM): Ant1¸˘/°^°	120-12-7	1	M@="	<1.0	5 µg/L	73.1	49	117
EP075(SIM): Fluorant1°^°	206-44-0	1	M@="	<1.0	5 µg/L	80.5	51	117
EP075(SIM): Pyrene	129-00-0	1	M@="	<1.0	5 µg/L	80.0	51	117
EP075(SIM): Benz(a)ant1¸˘/°^°	56-55-3	1	M@="	<1.0	5 µg/L	80.2	53	120
EP075(SIM): C1¸>%°^°	218-01-9	1	M@="	<1.0	5 µg/L	76.0	48	114
EP075(SIM): Benzo(b)fluorant1°^°	205-99-2	1	M@="	<1.0	5 µg/L	92.3	48	130
EP075(SIM): Benzo(k)fluorant1°^°	207-08-9	1	M@="	<1.0	5 µg/L	5˜.8	43	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	M@="	<0.5	5 µg/L	82.4	44	120
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	M@="	<1.0	5 µg/L	80.0	45	129
EP075(SIM): Dibenz(a.1;˘^˝ 1¸˘/°^°	53-70-3	1	M@="	<1.0	5 µg/L	78.6	47	131
EP075(SIM): Benzo(g.1.';2°¸>&°^°	191-24-2	1	M@="	<1.0	5 µg/L	79.1	42	126
EP075(SIM): Sum of polycyclic aromatic 1>`¸ /˜¸1 ^%	****	1	M@="	<1.0	****	****	****	****
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1113033)								
EP075(SIM): Nap1˝1˜&°^°	91-20-3	1	M@="	<1.0	5 µg/L	108	50	131
EP075(SIM): Acenap1˝1>&°^°	208-96-8	1	M@="	<1.0	5 µg/L	84.5	49.3	121
EP075(SIM): Acenap1˝1°^°	83-32-9	1	M@="	<1.0	5 µg/L	107	56.8	129
EP075(SIM): Fluorene	86-73-7	1	M@="	<1.0	5 µg/L	112	58.4	127
EP075(SIM): P1°^˜^˝ 1¸°^°	85-01-8	1	M@="	<1.0	5 µg/L	110	4˜.˘	131
EP075(SIM): Ant1¸˘/°^°	120-12-7	1	M@="	<1.0	5 µg/L	110	61.1	128
EP075(SIM): Fluorant1°^°	206-44-0	1	M@="	<1.0	5 µg/L	120	61.2	132
EP075(SIM): Pyrene	129-00-0	1	M@="	<1.0	5 µg/L	123	64	133
EP075(SIM): Benz(a)ant1¸˘/°^°	56-55-3	1	M@="	<1.0	5 µg/L	123	64.3	138
EP075(SIM): C1¸>%°^°	218-01-9	1	M@="	<1.0	5 µg/L	108	60.2	133
EP075(SIM): Benzo(b)fluorant1°^°	205-99-2	1	M@="	<1.0	5 µg/L	98.4	61.6	142
EP075(SIM): Benzo(k)fluorant1°^°	207-08-9	1	M@="	<1.0	5 µg/L	85.8	55.1	133
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	M@="	<0.5	5 µg/L	105	(5.5	133
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	M@="	<1.0	5 µg/L	107	64.2	135

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1113033) - continued								
EP075(SIM): Dibenz(a.1;˘˝˝ 1¸˘/°˚°	53-70-3	1	M@="	<1.0	5 µg/L	105	63.2	136
EP075(SIM): Benzo(g.1.';2°¸>&°˚°	191-24-2	1	M@="	<1.0	5 µg/L	108	64.3	136
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1107865)								
EP080: C6 - C9 Fraction	****	20	M@="	<20	160 µg/L	100	73	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1108172)								
EP071: C10 - C14 Fraction	****	50	M@="	<50	600 µg/L	76.0	49	110
EP071: C15 - C28 Fraction	****	100	M@="	<100	1020 µg/L	89.2	58	130
EP071: C29 - C36 Fraction	****	50	M@="	<50	****	****	****	****
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1113059)								
EP071-- X: C10 - C14 Fraction	****	50	M@="	<50	798 µg/L	5(.˘	64	124
EP071-- X: C15 - C28 Fraction	****	100	M@="	<100	804 µg/L	77.1	70	130
EP071-- X: C29 - C36 Fraction	****	50	M@="	<50	800 µg/L	78.8	68	128
EP071-- X: C10 - C36 Fraction (sum)	****	50	M@="	<50	****	****	****	****
EP080: BTEX (QCLot: 1107865)								
EP080: Benzene	71-43-2	1	M@="	<1	10 µg/L	84.5	55.4	122
EP080: Toluene	108-88-3	˘	M@="	H˘	10 µg/L	104	74	122
EP080: Et1>&1°ˆC°˚°	100-41-4	˘	M@="	H˘	10 µg/L	101	73	126
EP080: meta- & para-Xylene	108-38-3 106-42-3	˘	M@="	H˘	20 µg/L	101	70.4	129
EP080: ort1o-Xylene	95-47-6	˘	M@="	H˘	10 µg/L	85.5	74.3	126

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Matrix Spike (MS) Report

T1e quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked ?'˝1 ˇ representative set of target analytes. T1e purpose of ˝1is QC parameter is to +onitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in t1e event of sample matrix interference.

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 1111406)							
EB0914770-005	Anonymous	EG020A-F: Arsenic	7440-38-2	0.100 mg/L	125	70	130
		EG020A-F: Cadmium	7440-43-9	0.100 mg/L	107	70	130
		EG020A-F: C1¸ +'$+	7440-47-3	0.100 mg/L	113	70	130
		EG020A-F: Copper	7440-50-8	0.2 mg/L	104	70	130
		EG020A-F: Lead	7439-92-1	0.100 mg/L	97.1	70	130
		EG020A-F: Nickel	7440-02-0	0.100 mg/L	103	70	130
		EG020A-F: Zinc	7440-66-6	0.2 mg/L	127	70	130
EG035F: Dissolved Mercury by FIMS (QCLot: 1111405)							
EB0914770-005	Anonymous	EG035F: Mercury	7439-97-6	0.010 mg/L	55.4	70	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1107866)							
EB0914886-004	MW04	EP074: Benzene	71-43-2	10 µg/L	88.4	70	130
		EP074: Toluene	108-88-3	10 µg/L	89.6	70	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 1107866)							
EB0914886-004	MW04	EP074: 1.1-Dic1& ¸ °˝1°^°	75-35-4	10 µg/L	98.1	70	130
		EP074: Tric1& ¸ °˝1°^°	79-01-6	10 µg/L	83.3	70	130
EP074F: Halogenated Aromatic Compounds (QCLot: 1107866)							
EB0914886-004	MW04	EP074: C1& ¸ 1°^C°^°	108-90-7	10 µg/L	93.3	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1107865)							
EB0914886-002	MW02	EP080: C6 - C9 Fraction	****	140 µg/L	84.4	70	130
EP080: BTEX (QCLot: 1107865)							
EB0914886-002	MW02	EP080: Benzene	71-43-2	10 µg/L	91.2	70	130
		EP080: Toluene	108-88-3	10 µg/L	93.9	70	130

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

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Work Order	: **EB0914886**	%a@	) 1 ˜ 9
Clien˝	) S˜NCLA˜˙ ˝ N˜¸˚˜ @ERZ	Lab ra˝ r>	) Envir nmen˝al Divisi n Brisbane
Con˝aK˝	) @S L NA ˝ ANAS	Con˝aK˝	) Tim Kilmis˝er
Address	) EASTERN B˝ S¸ A° %˙L PEC˜ %L BL ! 848 STH BRISBANE 4101	Address	) 32 Shand Street Stafford QLD Australia 4053
E-mail	#okanas@skm.com.au	E-mail	#Services.Brisbane@alsenviro.com
Telephone	#+61 07 3026 7286	Telephone	#+61-7-3243 7222
Facsimile	#+61 07 3026 7306	Facsimile	#+61-7-3243 7218
Project	#QE09537	QC Level	#NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	#Cronulla Park		
C-O-C number	#$$$$	Date Samples Received	#18-SEP-2009
Sampler	#$$$$	Issue Date	#01-OCT-2009
Order number	#$$$$		
		No. of samples received	#16
Quote number	#EN/003/09	No. of samples analysed	#15

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

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Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting ˜ˆ ° tion. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 da;˜7 ; Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered							
MW01, MW02, MW03, MW04, MW05, MW06, MW07, MW08, MW09, Dup01, Dup02, CR13, CR14, CR15, Drain 1	**17-SEP-2009**	---	$$$	$$$$	**25-SEP-2009**	16-MAR-2010	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered							
MW01, MW02, MW03, MW04, MW05, MW06, MW07, MW08, MW09, Dup01, Dup02, CR13, CR14, CR15, Drain 1	**17-SEP-2009**	---	$$$	$$$$	**25-SEP-2009**	15-OCT-2009	✓
EP070: Total Petroleum Hydrocarbons - Speciation							
Amber Glass Bottle - Unpreserved							
MW04, MW05, MW06, MW07	**17-SEP-2009**	**25-SEP-2009**	24-SEP-2009	×	**26-SEP-2009**	01-NOV-2009	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Amber VOC Vial - HCl or NaHSO4							
MW03, MW04, MW05, MW06, MW07, MW08, CR13, Drain 1	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074B: Oxygenated Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03,	MW04,	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
MW05,	MW06,							
MW07,	MW08,							
CR13,	Drain 1							
EP074C: Sulfonated Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03,	MW04,	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
MW05,	MW06,							
MW07,	MW08,							
CR13,	Drain 1							
EP074D: Fumigants								
Amber VOC Vial - HCl or NaHSO4								
MW03,	MW04,	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
MW05,	MW06,							
MW07,	MW08,							
CR13,	Drain 1							
EP074E: Halogenated Aliphatic Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03,	MW04,	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
MW05,	MW06,							
MW07,	MW08,							
CR13,	Drain 1							
EP074F: Halogenated Aromatic Compounds								
Amber VOC Vial - HCl or NaHSO4								
MW03,	MW04,	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
MW05,	MW06,							
MW07,	MW08,							
CR13,	Drain 1							
EP074G: Trihalomethanes								
Amber VOC Vial - HCl or NaHSO4								
MW03,	MW04,	**17-SEP-2009**	---	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
MW05,	MW06,							
MW07,	MW08,							
CR13,	Drain 1							

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved							
MW08, CR13, Drain 1	**17-SEP-2009**	**22-SEP-2009**	24-SEP-2009	✓	**23-SEP-2009**	01-NOV-2009	✓
Amber Glass Bottle - Unpreserved							
MW04, MW05, MW06, MW07	**17-SEP-2009**	**25-SEP-2009**	24-SEP-2009	×	**25-SEP-2009**	04-NOV-2009	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW03, MW08, CR13, Drain 1	**17-SEP-2009**	**22-SEP-2009**	24-SEP-2009	✓	**23-SEP-2009**	01-NOV-2009	✓
Amber Glass Bottle - Unpreserved							
MW04, MW05, MW06, MW07	**17-SEP-2009**	**25-SEP-2009**	24-SEP-2009	×	**25-SEP-2009**	04-NOV-2009	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW01, MW02, MW03, MW08, MW09, Dup01, Dup02, CR13, CR14, CR15, Drain 1	**17-SEP-2009**	**22-SEP-2009**	24-SEP-2009	✓	**24-SEP-2009**	01-NOV-2009	✓
Amber Glass Bottle - Unpreserved							
MW04, MW05, MW06, MW07	**17-SEP-2009**	**25-SEP-2009**	24-SEP-2009	×	**30-SEP-2009**	04-NOV-2009	✓
Amber VOC Vial - HCl or NaHSO4							
MW01, MW02, MW03, MW04, MW05, MW06, MW07, MW08, MW09, Dup01, Dup02, CR13, CR14, CR15, Drain 1	**17-SEP-2009**	**---**	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓
EP080: BTEX							
Amber VOC Vial - HCl or NaHSO4							
MW01, MW02, MW09, Dup01, Dup02, CR14, CR15	**17-SEP-2009**	**---**	$$$	$$$$	**27-SEP-2009**	01-OCT-2009	✓

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Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Qualit; Control fre8uenc; not within s, ecification E✓ = Qualit; Control fre8uenc; within s, ecification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	1"	**13.3**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	8	**12.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	2	10	**20.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	14	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071-HX	1	4	**25.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Speciation	EP070	1	4	**25.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	1"	**6.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	8	**12.5**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	2	10	**20.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	14	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071-HX	1	4	**25.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Speciation	EP070	1	4	**25.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	1"	**6.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	8	**12.5**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	1"	**6.7**	**5.0**	✓	ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	8	**12.5**	**5.0**	✓	ALS QCS3 requirement

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Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	(APHA 21st ed., 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020): Samples are 0.45 um filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	AS 3550, APHA 21st ed. 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45 um filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Speciation	EP070	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Semivolatile Fraction	EP071-HX	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Volatile Organic Compounds	EP074	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
PAH/Phenols (GC/MS - SIM)	EP075SIM7	WATER	USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH Volatiles/BTEX	EP080	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.

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Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14-HX	WATER	Variation of USEPA SW 846 - 3510B: 500 mL to 0.5L of sample is transferred to a separatory funnel and serially extracted three times using 30mL DCM for each extract. The resultant extracts are combined, dehydrated, and exchanged into 5 mL of hexane for analysis. ALS default excludes sediment which may be resident in the container.

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Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and +ased on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA imits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**
- **For all matrices, no Laboratory Control outliers occur.**
- **For all matrices, no Matrix Spike outliers occur.**

Regular Sample Surrogates

Sub-Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)S: Phenolic Compound Surrogates	EB0914886-005	MW05	**Phenol-d6**	13127-88-3	8.7 %	10-94 %	**Recovery less than lower data quality objective**
EP075(SIM)S: Phenolic Compound Surrogates	EB0914886-006	MW06	**Phenol-d6**	13127-88-3	8.5 %	10-94 %	**Recovery less than lower data quality objective**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

Matrix: **WATER**

Method / Container / Client Sample ID(s)		Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP070: Total Petroleum Hydrocarbons - Speciation							
Amber Glass Bottle - Unpreserved							
MW04, MW06,	MW05, MW07	25-SEP-2009	24-SEP-2009	1	$$$$	$$$$	$$$$
EP075(SIM)A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved							
MW04, MW06,	MW05, MW07	25-SEP-2009	24-SEP-2009	1	$$$$	$$$$	$$$$
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved							
MW04, MW06,	MW05, MW07	25-SEP-2009	24-SEP-2009	1	$$$$	$$$$	$$$$
EP080/071: Total Petroleum Hydrocarbons							

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Matrix: **WATER**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP080/071: Total Petroleum Hydrocarbons - Analysis Holding Time Compliance						
Amber Glass Bottle - Unpreserved						
MW04, MW05, MW06, MW07	25-SEP-2009	24-SEP-2009	1	$$$$	$$$$	$$$$

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

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DL Documents

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0914886**

Client	* **SINCLAIR KNIGHT MERZ**	9aboratory	* Environmental Division Brisbane
Contact	* MS ONA KANAS	Contact	* Tim Kilmister
Address	* EASTERN BUSWAY PROJECT PO BOX 3848 STH BRISBANE 4101	Address	* 32 Shand Street Stafford QLD A2stralia 4053
E-mail	* "-˙˝˙&.&-,/0",/˙ 2	E-mail	* Services.Brisbane@alsenviro.com
Tele7ˆ"˝	* 861 07 3026 7286	Tele7ˆ"˝	* 861-7-3243 7222
5˙0&(,('	* 861 07 3026 7306	5˙0&(,('	* 861-7-3243 7218
Project	* QE09537	Page	* 1 "! ˇ
Order n2,2 ˜	* ++++		
C-O-C n2,2 ˜	* ++++	# 2ote n2,2 ˜	* ES2009SINKNI0322 (EN@03@7;
Site	* ˜"˝ 2lla Park		
Sam7' ˜	* ++++	QC Level	* NEPM 1999 Sche¸ 2le B(3) and ALS QCS3 req2(˜ , ˝°

Dates

Date Sam7les Received	* 18-SEP-2009	Iss2e Date	* 21-SEP-2009 17:30
Client Req2ested D2e Date	* 25-SEP-2009	Sched2led Re7orting Date	* **01-OCT-2009**

Delivery Details

Mode of Delivery	* ˙˜˜(˜	Tem7 ˜˙° 2˜	* 10.1, 7.3' C - Ice 7˜ & ˝°
No. of coolers@"A &	* 1 LARGE, 1 MEDIUM	No. of sam7les received	* 16
Serc2rity Seal	* Intact.	No. of sam7les analysed	* 15

General Comments

- This re7ort contains the following information:
  - + Sam7le Container(s)@reservation Non-Com7'(˝0 &
  - + S2mmary of Sam7le(s) and Req2ested Analysis
  - + Req2ested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any t2rn aro2nd @echnical q2eries to the laboratory contact designated above.
- Please direct any q2eries related to sam7le condition @2mbering @reakages to Maggie Kahi.
- Analytical work for this work order will be cond2cted at ALS Brisbane.
- Sam7le Dis7osal - Aq2 " 2s (14 days), Solid (90 days) from date of com7letion of work order.

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Sample Container(s)/Preservation Non-Compliances

All com7arisons are made against 7˜ °˜ ˙°, ˝° @7eservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be 7art of a ˙2"˜˙°"˜ > 7rocess neccessary for the A 0 2tion of client ˜ = 2 &°¸ tasks. Packages may contain additional analyses, &2ch ˙& the ¸eter mination of ,"(&° 2re content and 7˜ 7˙˜˙°("˝ tasks, that are incl2ded in the 7˙0-˙8 /
When ¸˙° (s) ˙˝¸ @r °(, (s) ˙˜ shown 2˜˙0- ° d, °^ & have 2een ˙&&2med by the laboratory for 7˜"0 &&(˝8 72˜7"& s. If °^ &˙, 7ling time is ¸(&7layed as 0:00 the information was not 7rovided by client.

<˙°˜(A: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) WATER No analysis req2 &°¸	WATER - EP070 (Water) TPH S7eciation - Ali7hatic & Aromatic H>drocarbons C10-C35	WATER - EP075 K gr7 removed SVOCs with no miscellaneo2s	WATER - EP075 SIM Phenols only SIM - Phenols only	WATER - W-02 8 Metals	WATER - W-05 TPH@TEX@ Metals	WATER - W-10 TPH@ @AH
EB0914886-001	17-SEP-2009 15:00	MW01						✓	
EB0914886-002	17-SEP-2009 15:00	MW02						✓	
EB0914886-003	17-SEP-2009 15:00	MW03					✓		✓
EB0914886-004	17-SEP-2009 15:00	MW04		✓		✓	✓		✓
EB0914886-005	17-SEP-2009 15:00	MW05		✓		✓	✓		✓
EB0914886-006	17-SEP-2009 15:00	MW06		✓		✓	✓		✓
EB0914886-007	17-SEP-2009 15:00	MW07		✓		✓	✓		✓
EB0914886-008	17-SEP-2009 15:00	MW08			✓	✓	✓		✓
EB0914886-009	17-SEP-2009 15:00	MW09						✓	
EB0914886-010	17-SEP-2009 15:00	%2701						✓	
EB0914886-011	17-SEP-2009 15:00	%27˜˜						✓	
EB0914886-012	17-SEP-2009 15:00	CR13				✓	✓		✓
EB0914886-013	17-SEP-2009 15:00	CR14						✓	
EB0914886-014	17-SEP-2009 15:00	CR15						✓	
EB0914886-015	17-SEP-2009 15:00	Drain 1				✓	✓		✓
EB0914886-016	17-SEP-2009 15:00	Tri7 Blank	✓						

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Requested Deliverables

MR JEREMY WICKS

+ *AU Certificate of Analysis - NATA (COA)	Email	6C(0-&.&-,/0",/˙	2
+ *AU Inter7retive QC Re7ort - DEFAULT (Anon QCI Re7) (QCI)	Email	6C(0-&.&-,/0",/˙	2
+ *AU QC Re7ort - DEFAULT (Anon QC Re7) - NATA (QC)	Email	6C(0-&.&-,/0",/˙	2
+ A4 - AU Sam7le Recei7t Notification - Environmental (SRN)	Email	6C(0-&.&-,/0",/˙	2
+ A4 - AU Tax Invoice (INV)	Email	6C(0-&.&-,/0",/˙	2
+ % !˙ 2lt - Chain of C2stody (COC)	Email	6C(0-&.&-,/0",/˙	2
+ EDI Format - ENMRG (ENMRG)	Email	6C(0-&.&-,/0",/˙	2
+ EDI Format - ESDAT (ESDAT)	Email	6C(0-&.&-,/0",/˙	2
+ EDI Format - XTab (XTAB)	Email	6C(0-&.&-,/0",/˙	2

MS ONA KANAS

+ *AU Certificate of Analysis - NATA (COA)	Email	"-˙˝˜&.&-,/0",/˙	2
+ *AU Inter7retive QC Re7ort - DEFAULT (Anon QCI Re7) (QCI)	Email	"-˙˝˜&.&-,/0",/˙	2
+ *AU QC Re7ort - DEFAULT (Anon QC Re7) - NATA (QC)	Email	"-˙˝˜&.&-,/0",/˙	2
+ A4 - AU Sam7le Recei7t Notification - Environmental (SRN)	Email	"-˙˝˜&.&-,/0",/˙	2
+ % !˙ 2lt - Chain of C2stody (COC)	Email	"-˙˝˜&.&-,/0",/˙	2
+ EDI Format - ENMRG (ENMRG)	Email	"-˙˝˜&.&-,/0",/˙	2
+ EDI Format - ESDAT (ESDAT)	Email	"-˙˝˜&.&-,/0",/˙	2
+ EDI Format - XTab (XTAB)	Email	"-˙˝˜&.&-,/0",/˙	2

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

RTI DL RELEASE - EHP

Work Order	: **EB0916017**	Page	1 of 6
Client	**SINCLAIR KNIGHT MERZ**	Laboratory	Environmental Division Brisbane
Contact	MR JE″ EMY WICKS	Contact	Tim Kilmister
Address	32 CORDELIA STREE# SOUTH B″ " B$+ E QLD, AUSTRALIA 4101	Address	32 Shand Street Stafford QLD Australia 401&
E-mail	jwicks@skm.com.au	E-mail	Services.Brisbane@alsenviro.com
Telephone	2222	Telephone	961-7-3243 7222
Facsimile	2222	Facsimile	961-7-3243 7218
Project	, E09537	QC Level	+EPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	2222		
C-O-C number	2222	Date Samples Received	08-OCT-2009
Sampler	2222	Issue Date	' 0-OCT-2009
Site	Cronulla Park		
		No. of samples received	15
Quote number	E+>00&-99	No. of samples analysed	15

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with "(> EC 170'17

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Matt Frost	Organic Instrument Chemist	Organics

13-054

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the U" EPA, APHA, AS and +EPM. In house developed procedures are employed in the absence of documented standards or by 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 insuffient 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 date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0 00 the information was not provided by client.

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

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DL Documents

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Analytical Results

Sub-Matrix: WATER				Client sample ID	MW01	MW02	MW03	MW04	MW05
				Client sampling date / time	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00
Compound	CAS Number	LOR	Unit		EB0916017-001	EB0916017-002	EB0916017-003	EB0916017-004	EB0916017-005
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	2222	10	Jg/L		C10	C10	C10	C10	C10
C15 - C28 Fraction	2222	100	Jg/L		<100	<100	<100	<100	<100
C29 - C36 Fraction	2222	10	Jg/L		C10	C10	C10	C10	C10
^ C10 - C36 Fraction (sum)	2222	10	Jg/L		C10	C10	C10	C10	C10
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	2222	' 0	Jg/L		C' 0	C' 0	C' 0	50	50
C10 - C14 Fraction	2222	10	Jg/L		60	C10	70	410	370
C15 - C28 Fraction	2222	100	Jg/L		130	<100	120	880	1190
C29 - C36 Fraction	2222	10	Jg/L		60	C10	60	290	410
^ C10 - C36 Fraction (sum)	2222	10	Jg/L		250	C10	240	1580	1960
EP080: BTEX									
Benzene	71-43-2	1	Jg/L		<1	<1	<1	6	3
Toluene	10:2::2&	'	Jg/L		C'	C'	C'	C'	C'
Ethylbenzene	100-41-4	'	Jg/L		C'	C'	C'	C'	C'
meta- & para-Xylene	108-38-3 1062.'2&	'	Jg/L		C'	C'	C'	4	C'
ortho-Xylene	95-47-6	'	Jg/L		C'	C'	C'	C'	C'
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060207-0	0.1	K		107	110	107	105	104
Toluene-D8	' 037-2621	0.1	K		108	110	97.1	106	104
4-Bromofluorobenzene	. 602002.	0.1	K		105	109	95.9	113	109

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DL Documents

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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: MW06	MW07	MW08	MW09	Dup01
				Client sampling date / time: 07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00
				EB0916017-006	EB0916017-007	EB0916017-008	EB0916017-009	EB0916017-010
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	2222	10	Jg/L	C10	C10	2222	C10	C10
C15 - C28 Fraction	2222	100	Jg/L	<100	<100	2222	<100	<100
C29 - C36 Fraction	2222	10	Jg/L	C10	C10	2222	C10	C10
^ C10 - C36 Fraction (sum)	2222	10	Jg/L	C10	C10	2222	C10	C10
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	2222	' 0	Jg/L	**30**	**50**	**50**	C' 0	C' 0
C10 - C14 Fraction	2222	10	Jg/L	**350**	**590**	2222	**60**	C10
C15 - C28 Fraction	2222	100	Jg/L	**960**	**1300**	2222	**180**	<100
C29 - C36 Fraction	2222	10	Jg/L	**220**	**270**	2222	**60**	C10
^ C10 - C36 Fraction (sum)	2222	10	Jg/L	**1530**	**2170**	2222	**310**	C10
EP080: BTEX								
Benzene	71-43-2	1	Jg/L	**1**	**4**	**2**	<1	<1
Toluene	10:2::2&	'	Jg/L	**3**	C'	C'	C'	C'
Ethylbenzene	100-41-4	'	Jg/L	C'	**3**	**8**	C'	C'
meta- & para-Xylene	108-38-3 1062.'2&	'	Jg/L	C'	**3**	**8**	C'	C'
ortho-Xylene	95-47-6	'	Jg/L	C'	C'	**2**	C'	C'
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060207-0	0.1	K	**102**	**96.9**	**106**	**104**	**111**
Toluene-D8	' 037-2621	0.1	K	**103**	**97.8**	**100**	**106**	**111**
4-Bromofluorobenzene	. 602002.	0.1	K	**101**	**106**	**114**	**105**	**109**

DL Documents
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Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Dup02	CR13	CR14	CR15	Creek
				Client sampling date / time: 07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00	07-OCT-2009 15:00
				EB0916017-011	EB0916017-012	EB0916017-013	EB0916017-014	EB0916017-015
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	2222	10	Jg/L	C10	C10	C10	C10	C10
C15 - C28 Fraction	2222	100	Jg/L	<100	<100	<100	<100	<100
C29 - C36 Fraction	2222	10	Jg/L	C10	C10	C10	C10	C10
^ C10 - C36 Fraction (sum)	2222	10	Jg/L	C10	C10	C10	C10	C10
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	2222	' 0	Jg/L	**30**	C' 0	C' 0	C' 0	C' 0
C10 - C14 Fraction	2222	10	Jg/L	**330**	**110**	C10	C10	**80**
C15 - C28 Fraction	2222	100	Jg/L	**840**	**330**	<100	**160**	**350**
C29 - C36 Fraction	2222	10	Jg/L	**180**	**80**	C10	**100**	**130**
^ C10 - C36 Fraction (sum)	2222	10	Jg/L	**1360**	**520**	C10	**260**	**570**
EP080: BTEX								
Benzene	71-43-2	1	Jg/L	<1	<1	<1	<1	<1
Toluene	10:2::2&	'	Jg/L	**2**	C'	C'	C'	C'
Ethylbenzene	100-41-4	'	Jg/L	C'	C'	C'	C'	C'
meta- & para-Xylene	108-38-3 1062.'2&	'	Jg/L	C'	C'	C'	C'	C'
ortho-Xylene	95-47-6	'	Jg/L	C'	C'	C'	C'	C'
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	17060207-0	0.1	K	**112**	**111**	**106**	**108**	**104**
Toluene-D8	' 037-2621	0.1	K	**98.3**	**105**	**106**	**105**	**102**
4-Bromofluorobenzene	. 602002.	0.1	K	**102**	**106**	**104**	**105**	**94.4**

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Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060207-0	: 0	120
Toluene-D8	' 037-2621	::	110
4-Bromofluorobenzene	. 602002.	: 6	115

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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0916017**	IF =°	#1 ^˘ 6
9 C nt	#**SINCLAIR KNIGHT MERZ**	˝ F+^ rFt^ ry	#Environm° ntFCDiviHon Br!H+Fn°
9 ontFct	#: R JEREMY WICKS	9 ontFct	#Tim Kilmister
Address	: ˘) CORDELIA STREET SOUTH BRISBANE . ˙^ / AUSTRALIA 0 !	Address	: ˘) Shand Street Stafford . LD Australia 0!(˘
E-mail	: jwicks@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	:))))	Telephone	: 34)5)˘)0 3 7)))
Facsimile	:))))	Facsimile	: 34)5)˘)0 3 7) 7
Project	: . E09537	. C Level	: NEPM 1999 Schedule B(3) and ALS . CS3 requirement
Site	: Cronulla Park		
C-O-C number	:))))	Date Samples Received	: !7)˘)) !!9
Sampler	:))))	Issue Date	:) !)˘)) !!9
Order number	:))))		
		No. of samples received	: (
. uote number	: EN/003/09	No. of samples analysed	: (

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved %& release.

This . uality 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

NATA Accredited Laboratory 8) (

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 170) (/

WORLD RECOGNISED ACCREDITATION

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in) 1 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Matt Frost	Organic Instrument Chemist	Organics

Environmental Division Brisbane
Part of the **ALS Laboratory Group**
˘) Shand Street Stafford . LD Australia 0!(˘
Tel. +61-7-3243 7222 Fax. +61-7-3)0 3 7) 18 **www.alsglobal.com**
A Campbell Brothers Limited Company

33-054

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA/ APHA/ AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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 insuffient 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 . C 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 .

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DL Documents

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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 . WI-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) 0 times LOR:- 0% - 50%; Result >) 0 times LOR:- 0% -) !H/

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 (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1129380)									
EB0916017-001	MW01	EP071: C15 - C) 8 Fraction	))))	!!	J?=˙	˜!	E !!	) ˜/!	No Limit
		EP071: C10 - C10 Fraction	))))	(!	J?=˙	4!	E(!	)0 /˜	No Limit
		EP071: C) 9 - C36 Fraction	))))	(!	J?=˙	4!	E(!	!/!	No Limit
EB0916017-01)	CR13	EP071: C15 - C) 8 Fraction	))))	!!	J?=˙	˜˜!	˜ !	(/)	No Limit
		EP071: C10 - C10 Fraction	))))	(!	J?=˙	!	7!	˜!/˜	No Limit
		EP071: C) 9 - C36 Fraction	))))	(!	J?=˙	7!	7!	!/!	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1130329)									
EB0916017-001	MW01	EP080: C6 - C9 Fraction	))))	) !	J?=˙	E) !	E) !	!/!	No Limit
EB0916017-011	ˆ'2!)	EP080: C6 - C9 Fraction	))))	) !	J?=˙	) !	) !	!/!	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1130330)									
EB0916017-015	Creek	EP080: C6 - C9 Fraction	))))	) !	J?=˙	E) !	E) !	!/!	No Limit
EB0916050)! !	Anonymous	EP080: C6 - C9 Fraction	))))	) !	J?=˙	E) !	E) !	!/!	No Limit
EP080: BTEX (QC Lot: 1130329)									
EB0916017-001	MW01	EP080: Benzene	5) 0˜))		J?=˙	E	E	!/!	No Limit
		EP080: Toluene	!7)77)˙	)	J?=˙	E)	E)	!/!	No Limit
		EP080: Ethylbenzene	!!) 0) 0	)	J?=˙	E)	E)	!/!	No Limit
		EP080: meta- & para-Xylene	108-38-3 !4) 0))˙	)	J?=˙	E)	E)	!/!	No Limit
		EP080: ortho-Xylene	9() 05)4	)	J?=˙	E)	E)	!/!	No Limit
EB0916017-011	ˆ'2!)	EP080: Benzene	5) 0˜))		J?=˙	E	E	!/!	No Limit
		EP080: Toluene	!7)77)˙	)	J?=˙	)	)	!/!	No Limit
		EP080: Ethylbenzene	!!) 0) 0	)	J?=˙	E)	E)	!/!	No Limit
		EP080: meta- & para-Xylene	108-38-3 !4) 0))˙	)	J?=˙	E)	E)	!/!	No Limit
		EP080: ortho-Xylene	9() 05)4	)	J?=˙	E)	E)	!/!	No Limit
EP080: BTEX (QC Lot: 1130330)									
EB0916017-015	Creek	EP080: Benzene	5) 0˜))		J?=˙	E	E	!/!	No Limit
		EP080: Toluene	!7)77)˙	)	J?=˙	E)	E)	!/!	No Limit
		EP080: Ethylbenzene	!!) 0) 0	)	J?=˙	E)	E)	!/!	No Limit
		EP080: meta- & para-Xylene	108-38-3 !4) 0))˙	)	J?=˙	E)	E)	!/!	No Limit
		EP080: ortho-Xylene	9() 05)4	)	J?=˙	E)	E)	!/!	No Limit
EB0916050)! !	Anonymous	EP080: Benzene	5) 0˜))		J?=˙	E	E	!/!	No Limit
		EP080: Toluene	!7)77)˙	)	J?=˙	E)	E)	!/!	No Limit
		EP080: Ethylbenzene	!!) 0) 0	)	J?=˙	E)	E)	!/!	No Limit

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DL Documents

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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 (%)*
EP080: BTEX (QC Lot: 1130330) - continued									
EB0916050)! !	Anonymous	EP080: meta- & para-Xylene	108-38-3 !4) 0))˘	)	J?=˙	E)	E)	!/!	No Limit
		EP080: ortho-Xylene	9() 05)4	)	J?=˙	E)	E)	!/!	No Limit

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DL Documents

33-054

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 . C 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 . C 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 (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup (QCLot: 1129379)								
EP071SG: C10 - C10 Fraction	))))	(!	J?=˙	E(!	576 µg/L	40/)	09	!
EP071SG: C15 - C) 8 Fraction	))))	!!	J?=˙	E !!	1010 µg/L	45/9	(7	˜!
EP071SG: C) 9 - C36 Fraction	))))	(!	J?=˙	E(!	))))	))))	))))	))))
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1129380)								
EP071: C10 - C10 Fraction	))))	(!	J?=˙	E(!	600 µg/L	55/˜	09	!
EP071: C15 - C) 8 Fraction	))))	!!	J?=˙	E !!	!) 0 µg/L	!(	(7	˜!
EP071: C) 9 - C36 Fraction	))))	(!	J?=˙	E(!	))))	))))	))))	))))
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1130329)								
EP080: C6 - C9 Fraction	))))	) !	J?=˙	E) !	160 µg/L	! 5	5˜	˜(
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1130330)								
EP080: C6 - C9 Fraction	))))	) !	J?=˙	E) !	160 µg/L	! 9	5˜	˜(
EP080: BTEX (QCLot: 1130329)								
EP080: Benzene	5) 0˜))		J?=˙	E	10 µg/L	9(/9	55/4	))
EP080: Toluene	!7)77)˜	)	J?=˙	E)	10 µg/L	!5	50	))
EP080: Ethylbenzene	!!) 0) 0	)	J?=˙	E)	10 µg/L	9(/9	5˜	) 4
EP080: meta- & para-Xylene	108-38-3 !4) 0))˜	)	J?=˙	E)	) 0 µg/L	!˜	5!/ 0	) 9
EP080: ortho-Xylene	9() 05)4	)	J?=˙	E)	10 µg/L	!)	50/˜	) 4
EP080: BTEX (QCLot: 1130330)								
EP080: Benzene	5) 0˜))		J?=˙	E	10 µg/L	!4	55/4	))
EP080: Toluene	!7)77)˜	)	J?=˙	E)	10 µg/L	!(	50	))
EP080: Ethylbenzene	!!) 0) 0	)	J?=˙	E)	10 µg/L	!˜	5˜	) 4
EP080: meta- & para-Xylene	108-38-3 !4) 0))˜	)	J?=˙	E)	) 0 µg/L	!˜	5!/ 0	) 9
EP080: ortho-Xylene	9() 05)4	)	J?=˙	E)	10 µg/L	! 0	50/˜	) 4

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DE Documents

33-0824

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 . C parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data . uality Objectives (D. Os). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1129380)							
EB0916017-00)	MW0)	EP071: C10 - C10 Fraction	))))	600 µg/L	5 / 0	5!	˜!
		EP071: C15 - C) 8 Fraction	))))	!) 0 µg/L	7(/ 0	5!	˜!
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1130329)							
EB0916017-00)	MW0)	EP080: C6 - C9 Fraction	))))	00 µg/L	9!/)	5!	˜!
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1130330)							
EB0916050)!!	Anonymous	EP080: C6 - C9 Fraction	))))	00 µg/L	9˜/ 0	5!	˜!
EP080: BTEX (QCLot: 1130329)							
EB0916017-00)	MW0)	EP080: Benzene	5) 0˜))	10 µg/L	95/7	5!	˜!
		EP080: Toluene	!7)77)˜	10 µg/L	!˜	5!	˜!
EP080: BTEX (QCLot: 1130330)							
EB0916050)!!	Anonymous	EP080: Benzene	5) 0˜))	10 µg/L	!	5!	˜!
		EP080: Toluene	!7)77)˜	10 µg/L	!˜	5!	˜!

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DL Documents

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0916017**	1 ˙ ?˜	: &%4
4 i˜ $t	: SINC˙ AI˝ KNIGHT 5 E˝ B	˙ ˙ 1&r˙ t&ry	: Environm˜ $t˙ Divi˜ ion Bri˜ 1˙ $˜
4 &$t˙ ct	: 5 ˝ E˝ E5 Y WICKS	4 &$t˙ ct	: Tim Kilmister
Address	: 32 CORDELIA STREET SOUTH BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia 4053
E-mail	: jwicks@skm.com.au	E-mail	: Services.Brisbane@alsenviro.com
Telephone	: ****	Telephone	: +61-7-3243 7222
Facsimile	: ****	Facsimile	: +61-7-3243 7218
Project	: QE09537	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: Cronulla Park		
C-O-C number	: ****	Date Samples Received	: 08-OCT-2009
Sampler	: ****	Issue Date	: 20-OCT-2009
Order number	: ****		
		No. of samples received	: !)
Quote number	: EN/003/09	No. of samples analysed	: !)

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

33-054

Analysis Holding Time Compliance

The following report summarises extraction ? preparation and analysis times and compares with recommended holding times. Dates reported represent first date '& extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative= from which the analysis aliquot was aken. Elapsed period ' analysis represents number '& days from sampling where %' extraction ? digestion is involved or period from extraction ? digestion where this is present. For composite samples, sampling date is assumed ' be #$ '& the oldest sample contributing ' the composite. Sample date for laboratory produced leachates is assumed as the completion date '& the leaching process. Outliers for holding time are based '% USEPA SW 8 5 ˜ APHA˜ AS and ¸˘9; <!::: =0 A listing '& breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according ' the analytes being determined '% the resulting solution. For %'%-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days)E Mercury (28 days= F other metals (180 days=0 A recorded breach therefore does %' guarantee a breach for all non-volatile parameters.

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Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
Amber Glass Bottle - Unpreserved								
MW01,	MW02,	**07-OCT-2009**	**14-OCT-2009**	14-OCT-2009	✓	**16-OCT-2009**	23-NOV-2009	✓
MW03,	MW04,							
MW05,	MW06,							
MW07,	MW09,							
Dup01,	Dup02,							
CR13,	CR14,							
CR15,	Creek							
EP080/071: Total Petroleum Hydrocarbons								
Amber Glass Bottle - Unpreserved								
MW01,	MW02,	**07-OCT-2009**	**14-OCT-2009**	14-OCT-2009	✓	**16-OCT-2009**	23-NOV-2009	✓
MW03,	MW04,							
MW05,	MW06,							
MW07,	MW09,							
Dup01,	Dup02,							
CR13,	CR14,							
CR15,	Creek							
Amber VOC Vial - HCl								
Creek		**07-OCT-2009**	---	***	****	**14-OCT-2009**	21-OCT-2009	✓
Amber VOC Vial - HCl								
MW01,	MW02,	**07-OCT-2009**	---	***	****	**15-OCT-2009**	21-OCT-2009	✓
MW03,	MW04,							
MW05,	MW06,							
MW07,	MW08,							
MW09,	Dup01,							
Dup02,	CR13,							
CR14,	CR15							

DL Documents

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEX							
Amber VOC Vial - HCl							
Creek	**07-OCT-2009**	**---**	***	****	**14-OCT-2009**	21-OCT-2009	✓
Amber VOC Vial - HCl							
MW01, MW02, MW03, MW04, MW05, MW06, MW07, MW08, MW09, Dup01, Dup02, CR13, CR14, CR15	**07-OCT-2009**	**---**	***	****	**15-OCT-2009**	21-OCT-2009	✓

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DL Documents

33-05

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Qualit@Control fre>uenc@not within s3ecification E✓ = Qualit@Control fre>uenc@within s3ecification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
TPH - Semivolatile Fraction	˘9"6!	2	1	**14.3**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	˘9"8"		38	**10.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
TPH - Semivolatile Fraction	˘9"6!	!	!	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Total Petroleum Hydrocarbons - Silica Gel Clean Up	EP071SG	!	!	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	˘9"8"	2	38	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
TPH - Semivolatile Fraction	˘9"6!	!	!	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Total Petroleum Hydrocarbons - Silica Gel Clean Up	EP071SG	!	!	**7.1**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	˘9"8"	2	38	**5.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
TPH - Semivolatile Fraction	˘9"6!	!	!	**7.1**	**5.0**	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	˘9"8"	2	38	**5.3**	**5.0**	✓	ALS QCS3 requirement

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33-09

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
TPH - Semivolatile Fraction	˘9"6!	WATER	USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
TPH - Total Petroleum Hydrocarbons - Silica Gel Clean Up	EP071SG	WATER	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
TPH Volatiles/BTEX	˘9"8"	WATER	USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2). ALS default excludes sediment which may be resident in the container.
Separatory Funnel Extraction of Liquids - Silica Gel Cleanup	ORG14-SG	WATER	USEPA SW 846 - 3510B 500 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using 60mL DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. ALS default excludes sediment which may be resident in the container. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2).

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Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report0 Surrogate recovery limits are static and 2ased '% USEPA SW8 5 or ALS-QWI/EN/38 (in the absence '& specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**
- **For all matrices, no Laboratory Control outliers occur.**
- **For all matrices, no Matrix Spike outliers occur.**

Regular Sample Surrogates

Sub-Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP080S: TPH(V)/BTEX Surrogates	ˇ˝":!5"!6*"!"	Dup01	**Toluene-D8**	2037-26-5	!!! K	88*!!" K	**Recovery greater than upper data quality objective**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- **No Quality Control Sample Frequency Outliers exist.**

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Client Documents

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0916017**

'(˝°	* **SINCLAIR KNIGHT MERZ**	$$2"˜ $°"˜>	* Environment$l Division Brisb$˝
"˝° $0°	* MS ONA KANAS	"˝° $0°	* Tim Kilmister
Address	* EASTERN BUSWAY PROJECT PO BOX LM4M STH BRISBANE 4101	Address	* LN SO$nd Street St$P6rd , LD A2&°$'($ 405L
E-m$('	* "- $˝ $&.&-,/0",/ $2	E-m$('	* Services.Brisb$˝ . $'& ˝1(˜"/0",
Tele7O˝	* 861 07 L˜ N6 7NM8	Tele7O˝	* 861-7-LN4L 7NNN
5$0&(,('	* 861 07 L˜ N6 7L˜3	5$0&(,('	* 861-7-LN4L 7N1M
Project	* , E095L4	P$8	* 1 " PN
Order n2,2 ˜	* ++++		
C-O-C n2,2 ˜	* ++++	, 2ote n2,2 ˜	* ESN009SINKNI0LNN(EN@ L@7 ;
Site	* ˜"˝ 2"$ P$˜-		
S$, 7' ˜	* ++++	, C Level	* NEPM 1999 ScO¸ 2le B:L; $nd ALS , CSL re<2(˜ , ˝°

Dates

%$te S$, 7les R 0 (1 ¸	* ˜ M-OCT-N˜7	Iss2e D$°	* 1L-OCT-N009 11:54
Client R <2ested D2e D$°	* N0-OCT-N˜7	ScO¸ 2led R 7orting D$°	* **20-OCT-2009**

Delivery Details

Mode oPDelivery	* $˜˜(˜	Tem7 ˜ $°2˜	* 7.0, L/L' C - Ice 7˜ & ˝°
No. oPcoolers@" A&	* N MEDIUM	No. oPs$, 7les received	* 15
Serc2rity Se$'	* Int$0°/	No. oPs$, 7les $˝ $'>& ¸	* 15

General Comments

- TOs re7ort cont$ins tOe P"" Aing inP˜, $°(/˝*
  - + S$, 7le Cont$(˝ ˜:& ;@reserv$tion Non-Com7'($˝0 &
  - + S2,, $ry oPS$, 7' :& ; $nd R <2ested An$">&(&
  - + R <2ested Deliver$2' &
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **For sample MW08 we are only able to do analysis of C6-9/BTEX as only Vials and a Nitric Acid Filtered Clear**
  Container were received. To do analysis for TPH C10-36 and TPH Silic Gel Clean up the preferred container is a
  Amber Glass Unpreserved.
- Ple$se direct $ny t2rn $˜" 2nd @ecO˝(0$l <2eries to tOe l$2"˜ $tory cont$ct design$ted $2"1 /
- Ple$se direct $ny <2eries rel$ted to s$, 7le condition @2mbering @re$- $ges to M$ggie K$O(/
- An$'>°(0$l Aork Por tOs Aork order Aill be cond2cted $t ALS Brisb$˝ /
- S$, 7le Dis7"&$l - A<2 " 2s (14 d$>&, Solid (90 d$>&; Prom d$te oPcom7letion oPAork order.

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Sample Container(s)/Preservation Non-Compliances

All com7$risons $re m$de 8inst 7˜ °˜ $°, ˝° @7& ˜1 $tion AS, APHA, USEPA st$˝¸ $˜¸&/

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described 2 '" A m$y be 7$rt " P $ l$2"˜ $°"˜> 7rocess ˝ 00 && $ry Por °O eA0 2tion " P client ˜ <2 &°¸ °$sks. P$0-$ges , $y 0"˝° $in $¸¸(°("˝ $l $˝ $lyses, &20O $& °Oe ¸ °˜,(˝ $tion " P ,"(&° 2re content $nd 7˜ 7$˜$°("˝ °$sks, tO$t $re incl2ded in tOe 7$0-$8 / WOen ¸$° :&; $˝¸ @r °(, :&; $re &O' An 2˜$cketed, °O& O$ve been $&&2med by °O l$2"˜ $tory Por 7˜"0 &&(˝8 72˜7"& s. IP tO s$, 7ling time is ¸(&7'$yed $s 0:00 tO (˝P˜, $tion A$s not 7rovided by client.

< $°˜(A: **WATER**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	WATER - EP071SC TPH Silic$ Cel Cle$n U7	WATER - W-04 TPH@TEX	WATER - W-1M TPH(C6 - C9;@TEX
EB0916017-001	07-OCT-N009 15:00	MW01	✓	✓	
EB0916017-00N	07-OCT-N009 15:00	MW0N	✓	✓	
EB0916017-00L	07-OCT-N009 15:00	MW0L	✓	✓	
EB0916017-004	07-OCT-N009 15:00	MW04	✓	✓	
EB0916017-005	07-OCT-N009 15:00	MW05	✓	✓	
EB0916017-006	07-OCT-N009 15:00	MW06	✓	✓	
EB0916017-007	07-OCT-N009 15:00	MW07	✓	✓	
EB0916017-00M	07-OCT-N009 15:00	MW0M			✓
EB0916017-009	07-OCT-N009 15:00	MW09	✓	✓	
EB0916017-010	07-OCT-N009 15:00	%2701	✓	✓	
EB0916017-011	07-OCT-N009 15:00	%27˜ N	✓	✓	
EB0916017-01N	07-OCT-N009 15:00	R1L	✓	✓	
EB0916017-01L	07-OCT-N009 15:00	R14	✓	✓	
EB0916017-014	07-OCT-N009 15:00	R15	✓	✓	
EB0916017-015	07-OCT-N009 15:00	˜ -	✓	✓	

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Requested Deliverables

MR JEREMY WICKS

+ BAU CertiP0$te oPAn$lysis - NATA (COA ;	Em$('	6A(0-&.&-,/0",/	$2
+ BAU Inter7retive , C R 7ort - DEFAULT (Anon , Cl R 7; (, Cl ;	Em$('	6A(0-&.&-,/0",/	$2
+ BAU , C R 7ort - DEFAULT (Anon , C R 7; - NATA (, C ;	Em$('	6A(0-&.&-,/0",/	$2
+ A4 - AU S$, 7le R 0 (7t NotiP0$tion - Environment$l (SRN ;	Em$('	6A(0-&.&-,/0",/	$2
+ A4 - AU T$A Invoice (INH ;	Em$('	6A(0-&.&-,/0",/	$2
+ % R$2lt - CO$in oPC2stody (COC ;	Em$('	6A(0-&.&-,/0",/	$2
+ EDI Form$t - ENMRC (ENMRC ;	Em$('	6A(0-&.&-,/0",/	$2
+ EDI Form$t - ESDAT (ESDAT ;	Em$('	6A(0-&.&-,/0",/	$2
+ EDI Form$t - XT$b (XTAB ;	Em$('	6A(0-&.&-,/0",/	$2

MS ONA KANAS

+ BAU CertiP0$te oPAn$lysis - NATA (COA ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ BAU Inter7retive , C R 7ort - DEFAULT (Anon , Cl R 7; (, Cl ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ BAU , C R 7ort - DEFAULT (Anon , C R 7; - NATA (, C ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ A4 - AU S$, 7le R 0 (7t NotiP0$tion - Environment$l (SRN ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ % R$2lt - CO$in oPC2stody (COC ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ EDI Form$t - ENMRC (ENMRC ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ EDI Form$t - ESDAT (ESDAT ;	Em$('	"- $˝ $&.&-,/0",/	$2
+ EDI Form$t - XT$b (XTAB ;	Em$('	"- $˝ $&.&-,/0",/	$2

This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025

Accreditation Number: 1645

LabMark ENVIRONMENTAL LABORATORIES

Certificate of Analysis

Sinclair Knight Merz
369 Anne Street
Brisbane QLD 4000
Australia

Attention: Jeremy Wicks

Project	**09ENME0031585**
Client Reference	QE09537
	Cronulla Park
Received Date	18/09/2009 12:10:00 PM

Customer Sample ID			**Trip01**	**Trip02**
Sample Matrix			**WATER**	**WATER**
Labmark Sample No.			**1732403**	**1732404**
Date Sampled			**17/09/2009**	**17/09/2009**
VOC				
Test/Reference	PQL	Unit		
1100 BTEX & (C6-C9) in Water by P&T				
4-Bromofluorobenzene - Surrogate	-	%	89	86
Benzene	0.5	µg/L	1.6	6.7
Toluene	1	µg/L	4.6	1.1
Ethylbenzene	1	µg/L	2.4	7.5
Meta- & Para- Xylene	2	µg/L	<2.0	7.3
Ortho-Xylene	1	µg/L	<1.0	4.1
Total Xylenes	3	µg/L	<3.0	11
C6-C9 Fraction	20	µg/L	<20.0	44
SVOC				
Test/Reference	PQL	Unit		
2000 TPH (C10 - C36) in Water by GC				
C10-C14 Fraction	40	µg/L	720	520
C15-C28 Fraction	100	µg/L	1230	1210
C29-C36 Fraction	100	µg/L	<100	<100
Metals				
Test/Reference	PQL	Unit		
3100 Dissolved Metals in Water By ICP/MS				
Arsenic	5	µg/L	20	12
Cadmium	5	µg/L	<5	<5
Chromium	5	µg/L	7.5	14
Copper	5	µg/L	<5	5.2
Lead	5	µg/L	<5	<5
Nickel	5	µg/L	9.0	44
Zinc	5	µg/L	21	12
3400 Dissolved Mercury in Water by FIMS				
Mercury	0.1	µg/L	<0.1	<0.1

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Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	**Testing Site**	**Extracted**	**Analysed**
1100 BTEX & (C6-C9) in Water by P&T	Melbourne 1645	23/09/2009	25/09/2009
2000 TPH (C10 - C36) in Water by GC	Melbourne 1645	23/09/2009	25/09/2009
3100 Dissolved Metals in Water By ICP/MS	Melbourne 1645	22/09/2009	23/09/2009
3400 Dissolved Mercury in Water by FIMS	Melbourne 1645	22/09/2009	23/09/2009

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

RTI DL RELEASE - EHP

Work Order	: **EB0903142**	Page	: 1 of 7
Amendment	: **1**		
Client	: **SINCLAIR KNIGHT MERZ**	Laborato˜^	: Environmental ˝°˝ ˝ o¸ Brisbane
˙ ontact	: MR JEREMY WI˙ KS	˙ ontact	: T˝˜ Kilmister
Address	: 32 ˙ ORDELIA STREET BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Staffo˘d QLD Australia 4053
E¸mail	: °˜ ˝! ! ˜ "! o˜ "a˙	E¸mail	: Services"Brisbane! alsenviro.! o˜
Telephone	: 3026 7526	Telephone	: +61-7-3243 7222
Facsimile	: ¸¸¸¸	Facsimile	: +61-7-3243 7218
Project	: QB10035	Q˙ Level	: NEPM 1999 S!^edule B(3) and ALS Q˙ S3 re)˙ irement
O˘der ¸ ˙mber	: ¸¸¸¸		
˙ -O-˙ ¸ ˙mber	: ¸¸¸¸	Date Sam#les Received	: 26-FEB-2009
Sam#ler	: K.˙ ^and	˙ e Date	: 02-MAR-2009
Site	: ormer Slac creek Landfill		
		No. of sam#les received	: 4
Quote ¸ ˙mber	: EN/003/0&	No. of sam#les analysed	: 4

Th˝ repo˘˘ ˙#ersedes any previou repo˘˙) ˜ ˝h ˜^˝ reference. Res˙lts a##ly ˘o ˜^e sam#le') as ˙bmitted. All pages of ˜^˝ repo˘˘ have been !^ec ed and a##˘oved fo˘ release.

Th˝ Certificate of Analysis !ontains ˜^e following ˝¸formation:

- +eneral ˙omments
- Analytical Res˙lts
- Su˘˘ogate ˙ o¸˘˘ol Limits

NATA Accredited Laborato˜^ 825

Th˝ do!˙ment ˝ ˝ ˙ed ˝¸ acco˘dance w˝h NATA accreditatio¸ re)˙ irements"

Accredited fo˘ !o˜ #liance w˝h ISO/IEC 17025.

Signatories

Th˝ do!˙ment has been electronically signed by ˜^e a˙ ˝ho˘˝,ed signatories ˝¸dicated below. Electro¸˝! signing has been carried ou˘˝¸ !o˜ #liance w˝h p˘ocedures #ecified ˝¸ 21 ˙ R Part 11.

Signatories	*Position*	*Accreditation Category*
att^ew Goodw˝¸	Senio˘ Organic ˙^emist	Organics
Ste#^en Hislop	Senio˘ I¸organic ˙^emist	I¸organics
Ste#^en Hislop	Senio˘ I¸organic ˙^emist	Organics

RTI DL RELEASE - EHP

Environmental Division Brisbane
Part of the ALS Laboratory Group
32 Shand Street Stafford QLD Australia 4053
Tel. +61-7-3243 7222 Fax. +61-7-3243 7218 www.alsglobal.com
A Campbell Brothers Limited Company

13-Oct-09

General Comments

The analytical p˜ocedures used by ˜^e Environmental ˝°˝˝o¸ have been developed f˝o˜ establis^ed internationally recogni,ed #˜ocedures ˙!h as ˜hose p˙blis^ed by ˜^e USEPA, APHA, AS and NEPM. I¸ house developed p˜ocedures are em#loyed ˝¸ ˜^e absence of do!˙mented standard o˜ by client re)˙est"

Where ˜ o˝˙re determinatio¸ has been performed, res˙lts are reported o¸ a d˜^ weig^˙basis"

Where a reported less ˜^an (<) res˙lt ˝ hig^er ˜^an ˜^e LOR, ˜^˝ may be due ˜o primary sam#le e. tract/digestate dil˙˝o¸ and/o˜ ˝¸ uffient sam#le fo˜ analysis"

Where ˜^e LOR of a reported res˙lt d˝ffers f˝o˜ standard LOR, ˜^˝ may be due ˜o high˜ o˝˙re !ontent, ˝¸ ufficient sam#le (reduced weig^˙em#loyed) o˜ matrix interference"

When date') and/o˜ time') are how¸ brac eted, ˜^ese have been ass˙med by ˜^e laborato˜^ fo˜ p˜ocessing pu˜poses. If ˜^e sam#ling time ˝ d˝ #layed as 0:00 ˜^e ˝¸formatio¸ was ¸o˜ p˜o°˝ded by client"

Key : ˙AS Number = ˙AS registry ¸˙mber f˝o˜ database maintained by ˙^emical Abstracts Services. The ˙^emical Abstracts Service ˝ a d˝°˝ ˝o¸ of ˜^e American ˙^emical Society"
LOR = Limit of reporting
^ = Th˝ res˙lt ˝ !o˜ #˙ted f˝o˜ ˝¸d˝°˝dual analyte detectio¸ at o˜ above ˜^e level of reporting

- **EG020F (Dissolved Metals) : Sample EB0903034-012 shows poor matrix spike recovery due to matrix interference. Confirmed by re-analysis.**
- **This report has been amended to allow the distribution of an Electronic Data Deliverable (EDD) not previously provided. All analysis results are as per the previous report.**
- **VOC: Samples show high failing surrogate recovery for 1.2-Dichloroethane-D4. This has been deeemed acceptable as all associated sample results are less than LOR.**

RTI DL RELEASE - EHP

Analytical Results

Sub¸ atri. : **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: CR13	CR14	CR15	CREEK	‚‚‚‚
				Client sampling date / time: 26-FEB-2009 11:40	26-FEB-2009 11:40	26-FEB-2009 11:40	26-FEB-2009 11:40	‚‚‚‚
				EB0903142-001	EB0903142-002	EB0903142-003	EB0903142-004	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0"001	mg*L	**0.016**	**0.002**	00"001	<0"001	‚‚‚‚
Cadmium	7440-43-9	0"0001	mg*L	00"0001	**0.0001**	**0.0001**	00"0001	‚‚‚‚
Chromium	7440-47-3	0"001	mg*L	00"001	00"001	<0"001	<0"001	‚‚‚‚
Copper	7440¸˜0¸&	0"001	mg*L	00"001	**0.005**	<0"001	**0.002**	‚‚‚‚
Lead	7439¸92-1	0"001	mg*L	00"001	**0.001**	<0"001	<0"001	‚‚‚‚
Nickel	7440¸02-0	0"001	mg*L	**0.001**	**0.004**	00"001	**0.001**	‚‚‚‚
Zinc	7440¸$$¸$	0"00˜	mg*L	**0.042**	**0.105**	**0.046**	**0.098**	‚‚‚‚
EG035F: Dissolved Mercury by FIMS								
Mercury	7439¸97-6	0"0001	mg*L	00"0001	00"0001	<0"0001	<0"0001	‚‚‚‚
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
Toluene	108-88-3	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
Ethylbenzene	100-41-4	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
meta- & para-Xylene	108-38-3 106-42-3	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
Styrene	100-42-5	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
ortho-Xylene	95-47-6	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
Isopropylbenzene	98-82-8	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
n-Propylbenzene	103-65-1	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
1.3.5-Trimethylbenzene	108-67-8	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
sec-Butylbenzene	135-9&¸&	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
1.2.4-Trimethylbenzene	95-63-6	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
tert-Butylbenzene	9&¸0$¸$	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
p-Isopropyltoluene	99-87-6	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
n-Butylbenzene	104-51-8	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
EP074B: Oxygenated Compounds								
Vinyl Acetate	10&¸05-4	˜0	µg*L	0˜0	0˜0	0˜0	0˜0	‚‚‚‚
2-Butanone (MEK)	78-93-3	˜0	µg*L	0˜0	0˜0	0˜0	0˜0	‚‚‚‚
4-Methyl-2-pentanone (MIBK)	108-10-1	˜0	µg*L	0˜0	0˜0	0˜0	0˜0	‚‚‚‚
2-Hexanone (MBK)	˜91-78-6	˜0	µg*L	0˜0	0˜0	0˜0	0˜0	‚‚‚‚
EP074C: Sulfonated Compounds								
Carbon disulfide	75-15-0	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
EP074D: Fumigants								
2.2-Dichloropropane	˜94-20-7	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
1.2-Dichloropropane	78-87-5	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
cis-1.3-Dichloropropylene	10061-01-5	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
trans-1.3-Dichloropropylene	10061-02-6	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚
1.2-Dibromoethane (EDB)	10$¸93-4	˜	µg*L	0˜	0˜	0˜	0˜	‚‚‚‚

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Analytical Results

Sub˛ atri. : **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID	CR13	CR14	CR15	CREEK	˛˛˛˛
				Client sampling date / time	26-FEB-2009 11:40	26-FEB-2009 11:40	26-FEB-2009 11:40	26-FEB-2009 11:40	˛˛˛˛
					EB0903142-001	EB0903142-002	EB0903142-003	EB0903142-004	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	˝0	µg˙L		0˝0	0˝0	0˝0	0˝0	˛˛˛˛
Chloromethane	74-87-3	˝0	µg˙L		0˝0	0˝0	0˝0	0˝0	˛˛˛˛
Vinyl chloride	75-01-4	˝0	µg˙L		0˝0	0˝0	0˝0	0˝0	˛˛˛˛
Bromomethane	74-83-9	˝0	µg˙L		0˝0	0˝0	0˝0	0˝0	˛˛˛˛
Chloroethane	75-00-3	˝0	µg˙L		0˝0	0˝0	0˝0	0˝0	˛˛˛˛
Trichlorofluoromethane	75-69-4	˝0	µg˙L		0˝0	0˝0	0˝0	0˝0	˛˛˛˛
1.1-Dichloroethene	75-35-4	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Iodomethane	74-88-4	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
trans-1.2-Dichloroethene	156-60˛˝	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.1-Dichloroethane	75-34-3	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
cis-1.2-Dichloroethene	156-59-2	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.1.1-Trichloroethane	71-55-6	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.1-Dichloropropylene	563-58-6	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Carbon Tetrachloride	56-23-5	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.2-Dichloroethane	107-06-2	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Trichloroethene	79˛01-6	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Dibromomethane	74-95-3	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.1.2-Trichloroethane	79˛00˛˝	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.3-Dichloropropane	142-28-9	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Tetrachloroethene	127-18-4	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.1.1.2-Tetrachloroethane	630-20˛$	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
trans-1.4-Dichloro-2-butene	110-57-6	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
cis-1.4-Dichloro-2-butene	1476-11-5	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.1.2.2-Tetrachloroethane	79-34-5	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.2.3-Trichloropropane	96-18-4	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Pentachloroethane	76-01-7	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.2-Dibromo-3-chloropropane	96-12-8	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Hexachlorobutadiene	87-68-3	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	10&˛90-7	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
Bromobenzene	108-86-1	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
2-Chlorotoluene	95-49˛&	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
4-Chlorotoluene	106-43-4	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.3-Dichlorobenzene	541-73-1	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.4-Dichlorobenzene	106-46-7	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.2-Dichlorobenzene	9˝˛˝ 0-1	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.2.4-Trichlorobenzene	120-82-1	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛
1.2.3-Trichlorobenzene	87-61-6	˝	µg˙L		0˝	0˝	0˝	0˝	˛˛˛˛

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Analytical Results

Sub¸ atri. : **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: CR13	CR14	CR15	CREEK	¸¸¸¸
				Client sampling date / time: 26-FEB-2009 11:40	26-FEB-2009 11:40	26-FEB-2009 11:40	26-FEB-2009 11:40	¸¸¸¸
				EB0903142-001	EB0903142-002	EB0903142-003	EB0903142-004	----
EP074G: Trihalomethanes								
Chloroform	67-66-3	˝	µg˚L	0˝	0˝	0˝	0˝	¸¸¸¸
Bromodichloromethane	75-27-4	˝	µg˚L	0˝	0˝	0˝	0˝	¸¸¸¸
Dibromochloromethane	124-48-1	˝	µg˚L	0˝	0˝	0˝	0˝	¸¸¸¸
Bromoform	75-25-2	˝	µg˚L	0˝	0˝	0˝	0˝	¸¸¸¸
EP074H: Naphthalene								
Naphthalene	91-20-3	7	µg˚L	<7	<7	<7	<7	¸¸¸¸
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	¸¸¸¸	20	µg˚L	<20	<20	<20	<20	¸¸¸¸
C10 - C14 Fraction	¸¸¸¸	˝0	µg˚L	**60**	**50**	0˝0	0˝0	¸¸¸¸
C15 - C28 Fraction	¸¸¸¸	100	µg˚L	**300**	**400**	<100	<100	¸¸¸¸
C29 - C36 Fraction	¸¸¸¸	˝0	µg˚L	**60**	**240**	0˝0	0˝0	¸¸¸¸
EP074S: VOC Surrogates								
1.2-Dichloroethane-D4	170$0¸07-0	0.1	K	**169**	**160**	**163**	**160**	¸¸¸¸
Toluene-D8	2037-26-5	0.1	K	**89.6**	**92.2**	**91.6**	**90.8**	¸¸¸¸
4-Bromofluorobenzene	460¸00-4	0.1	K	**102**	**94.1**	**94.3**	**92.2**	¸¸¸¸
EP080S: TPH(V)/BTEX Surrogates								
1.2-Dichloroethane-D4	170$0¸07-0	0.1	K	**117**	**113**	**113**	**111**	¸¸¸¸
Toluene-D8	2037-26-5	0.1	K	**100**	**92.2**	**91.6**	**90.8**	¸¸¸¸
4-Bromofluorobenzene	460¸00-4	0.1	K	**110**	**102**	**102**	**99.6**	¸¸¸¸

RTI DL RELEASE - EHP

DL Documents

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Surrogate Control Limits

Sub¸ atri. : **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	170$0¸07-0	&0	120
Toluene-D8	2037-26-5	&&	110
4-Bromofluorobenzene	460¸00-4	&$	115
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	170$0¸07-0	&0	120
Toluene-D8	2037-26-5	&&	110
4-Bromofluorobenzene	460¸00-4	&$	115

RTI DL RELEASE - EHP

DL Documents

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

QUALITY CONTROL REPORT

RTI DL RELEASE - EHP

Work Order	: **EB0903142**	83Ae	: 6789:
Amendment	: **1**		
4e>t	: **SINCLAIR KNIGHT MERZ**	;3<8=3t8⇒	: ?>@=8>Ae>t347B@5i8>7Ci=5<3>e
8>t3Dt	: EF7G?F?EH7I ICKS	8>t3Dt	: iA7Ki4Ai5te=
Add=e55	: L) 7˘ FB?; IA7STF?? CFISCAC?7L ;B M7A) STFA; IA7K6, 6	Add=e55	: L) 7S13>d7St=eet7St3998d=7L ;B7A25t=3i87K,) L
?+A3 i4	: 8DiD=5I 5HA0D8AC32	?+A3 i4	: Se=@De5CC=i5<3>eI 345e>@=8CD8A
Te4eD18>e	: L,) 475)) 4	Te4eD18>e	: %46+5+L) KL75)))
23D5Ai4e	: ++++	23D5Ai4e	: %46+5+L) KL75) 6&
8=8eDt	: L C6,, L)	L 7;e@4	: C?8E76:::77 SD1ed24e7CL(73>d7A; S7L CSL7e) 2i=eA e>t
Site	: 28=Ae=8431D57DeeH7;3>d944		
+˘ + 7>2A<e=	: ++++	B3te7S3A D4e57FeDei@d	:) 4+2?C+) ,, :
S3A D4e=	: KC 13>d	I552e7B3te	: ,) +E AF+) ,, :
˘=de=72A<e=	: ++++		
		C8C789753D4e57=Dei@d	: K
L 28te7>2A<e=	: ? C*,, L*, &	C8C78975 3D4e573=3=6ed	: K

1i57 =eD8=t7 52De=5ede57 3>>7 D=e@8257 =eD8=t'5(7 Dit17 t1i57 =e9e=e>DeC7 Fe52457 3DD4>7 t87 t1e7 53A D4e'5(7 357 52<AittedC7 A447D3Ae57 897t1i57 =eD8=t7 13@e7 <ee>7 D1eD=ed7 3>d7 3DD=8@d7 8=
=e4e35eC7
1i57L 234ty7 8>t=8476eD8=t7D8t3i>577e7984D98>A7>98=A38>:

- ;3<8=3t8⇒7E2D4D3e7'B) 8(7FeD8=t9Fe43i@7Pe=De>t3Ae7E98=e>De7'F8B(73>d7ADDeDt3>De7;iA it5
- E et18d7C43=7'EC(73>d7;3<8=38⇒7 8>t=847DiHe7'; CS(7FeD8=t9FeD8@⇒73>d7ADDeDt3>De7;iA it5
- E3t=iD7SDiHe7'ES(7FeD8=t9FeD8@⇒73>d7ADDeDt3>De7;iA it5

WORLD RECOGNISED ACCREDITATION

CATA7ADDedited7;3<8=38⇒78)
7
1i57d8D2Ae>t7 57552ed7>7
3DD8e3>De7Dit17CATA7
3DDedit3ti8>7e) 2i=eA e>t5C

ADDedited798=7D8A3>De7Dit17
ISO'1? 765,)) C

Signatories

1i57 d8D2Ae>t7 1357 <ee>7 e4eD=8>iD34=7 5g>ed7 <>7 t1e7 32t18=i@d7 5g>3t8=ie57 i>diD3ted7 <e48DC7 ?4eD=8>iD7 5ig>i>A7 1357 <ee>
D3=ied782t7>7D8AD43>De7Dit17D=8Ded2=e575DeD9ed7>7) 67 2F78 3=t766C

Signatories	*Position*	*Accreditation Category*
E3tt1eD7B 88dDi>	Se>i8=7 =A3>iD7 1eA i5t	O=A3>iD5
SteD1e>7Hislop	Senior Inorganic C1emist	Inorganics
Step1en Hislop	Senior Inorganic C1emist	Organics

13-Oct-

General Comments

(1e analytical proced2res 2sed by t1e Environmental Division 1ave been developed from establis1ed internationally recognized proced2res s2c1 as t1ose p2blis1ed by t1e USEPA, APHA, AS and NEPM. In 1o2se developed proced2res are employed in t1e absence of doc2mented standards or by client req2est.

˘ 1ere moist2re determination 1as been performed, res2lts are reported on a dry weig1t basis.

˘ 1ere a reported less t1an (<) res2lt is 1ig1er t1an t1e LOR, t1is may be d2e to primary sample eDtract/digestate dil2tion and/or ins2ffient sample for analysis.

˘ 1ere t1e LOR of a reported res2lt differs from standard LOR, t1is may be d2e to 1ig1 moist2re content, ins2fficient sample (red2ced weig1t employed) or matriDinterference.

Key : Anonymo2s = Refers to samples w1ic1 are not specifically part of t1is work order b2t formed part of t1e QC process lot
CAS N2mber = CAS registry n2mber from database maintained by C1emical Abstracts Services. T1e C1emical Abstracts Service is a division of t1e American C1emical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

RTI DL RELEASE - EHP

33-054

Laboratory Duplicate (DUP) Report

(1e 62ality control term Laboratory 12plicate refers to a randomly selected intralaboratory split. Laboratory ˙2plicates provide information regarding met1od precision and sample 1eterogeneity. (1e permitted ranges for t1e Relative Percent Deviation (RPD) of Laboratory 12plicates are specified in ALS Met1od +˘ -EN/38 and are dependent on t1e magnit2de of res2lts in comparison to t1e level of reporting: Res2lt < 10 times LOR:- No Limit; Res2lt between 10 and) 0 times LOR:- 0% - 50%; Res2lt >) 0 times LOR:- 0% -) °A5

S2b-MatriD: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 905995)									
EB090314) >°°	CR13	˝!°) 0A-F: Cadmi2m	7440-43-9	°5°°°	mg/L	9°5°°°	9°5°°°	°5°	No Limit
		˝!°) 0A-F: Arsenic	D!!°>˜?>)	°5°°	mg/L	°5° E	°5° ,	°5°	0% - 50%
		˝!°) 0A-F: C1romi2m	D!!°>!D>˜	°5°°	mg/L	9°5°°	9°5°°	°5°	No Limit
		˝!°) 0A-F: Copper	D!!°>,°>?	°5°°	mg/L	9°5°°	9°5°°	°5°	No Limit
		˝!°) 0A-F: Lead	7439-9) >	°5°°	mg/L	9°5°°	9°5°°	°5°	No Limit
		˝!°) 0A-F: Nickel	D!!°>°) >°	°5°°	mg/L	°5°°	°5°°	°5°	No Limit
		˝!°) 0A-F: Zinc	D!!°>EE>E	°5°°,	mg/L	°5°!)	°5°!)	°5°	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 903748)									
EB090) 389-045	Anonymo2s	EG035F: Merc2ry	7439-97-6	°5°°°	mg/L	9°5°°°	9°5°°°	°5°	No Limit
EB0903130-001	Anonymo2s	EG035F: Merc2ry	7439-97-6	°5°°°	mg/L	9°5°°°	9°5°°°	°5°	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: Benzene	D >!˜>)	,	µg/L	9,	9,	°5°	No Limit
		EP074: Tol2ene	°?>??>˜	,	µg/L	9,	9,	°5°	No Limit
		EP074: Et1ylbenzene	°°>! >!	,	µg/L	9,	9,	°5°	No Limit
		EP074: meta- & para-Xylene	108-38-3 °E>!) >˜	,	µg/L	9,	9,	°5°	No Limit
		EP074: Styrene	°°>!) >,	,	µg/L	9,	9,	°5°	No Limit
		EP074: ort1o-Xylene	95-47-6	,	µg/L	9,	9,	°5°	No Limit
		EP074: Isopropylbenzene	98-8) >?	,	µg/L	9,	9,	°5°	No Limit
		EP074: n-Propylbenzene	°˜>E,>	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.3.5-Trimet1ylbenzene	°?>ED>?	,	µg/L	9,	9,	°5°	No Limit
		EP074: sec-B2tylbenzene	135-98-8	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) .4-Trimet1ylbenzene	95-63-6	,	µg/L	9,	9,	°5°	No Limit
		EP074: tert-B2tylbenzene	98-06-6	,	µg/L	9,	9,	°5°	No Limit
		EP074: p-Isopropyltol2ene	99-87-6	,	µg/L	9,	9,	°5°	No Limit
		EP074: n-B2tylbenzene	°!>, >?	,	µg/L	9,	9,	°5°	No Limit
EP074B: Oxygenated Compounds (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: Vinyl Acetate	°?>°,>!	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074:) >¸2tanone (MEK)	78-93-3	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074: 4-Met1yl-) -pentanone (MIBK)	°?> °>	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074:) -HeDanone (MBK)	591-78-6	,°	µg/L	9,°	9,°	°5°	No Limit
EP074C: Sulfonated Compounds (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: Carbon dis2lfide	D,> ,>°	,	µg/L	9,	9,	°5°	No Limit
EP074D: Fumigants (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074:) 5) -Dic1loropropane	594-) °>D	,	µg/L	9,	9,	°5°	No Limit

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DL Documents

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074D: Fumigants (QC Lot: 903712) - continued									
EB0903099-001	Anonymo2s	EP074: 1.) -Dic1loropropane	D?>?D>,	,	µg/L	9,	9,	°5°	No Limit
		EP074: cis-1.3-Dic1loropropylene	°°E >° >,	,	µg/L	9,	9,	°5°	No Limit
		EP074: trans-1.3-Dic1loropropylene	°°E >°) >E	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) -Dibromoet1ane (EDB)	106-93-4	,	µg/L	9,	9,	°5°	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: 1.1-Dic1loroet1ene	D,>˜,>!	,	µg/L	9,	9,	°5°	No Limit
		EP074: Iodomet1ane	D!>??>!	,	µg/L	9,	9,	°5°	No Limit
		EP074: trans-1.) -Dic1loroet1ene	,E>E°>,	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.1-Dic1loroet1ane	D,>˜!>˜	,	µg/L	9,	9,	°5°	No Limit
		EP074: cis-1.) -Dic1loroet1ene	156-59-)	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.1.1-Tric1loroet1ane	D >,,>E	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.1-Dic1loropropylene	,E˜>,?>E	,	µg/L	9,	9,	°5°	No Limit
		EP074: Carbon Tetrac1loride	,E>) ˜>,	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) -Dic1loroet1ane	°D>°E>)	,	µg/L	9,	9,	°5°	No Limit
		EP074: Tric1loroet1ene	79-01-6	,	µg/L	9,	9,	°5°	No Limit
		EP074: Dibromomet1ane	74-95-3	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.1.) -Tric1loroet1ane	79-00-5	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.3-Dic1loropropane	!) >) 8-9	,	µg/L	9,	9,	°5°	No Limit
		EP074: Tetrac1loroet1ene	) D>,?>!	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.1.1.) -Tetrac1loroet1ane	E˜°>) °>E	,	µg/L	9,	9,	°5°	No Limit
		EP074: trans-1.4-Dic1loro-) >/2tene	°>,D>E	,	µg/L	9,	9,	°5°	No Limit
		EP074: cis-1.4-Dic1loro-) >/2tene	!DE> >,	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.1.) 5 -Tetrac1loroet1ane	79-34-5	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) .3-Tric1loropropane	96-18-4	,	µg/L	9,	9,	°5°	No Limit
		EP074: Pentac1loroet1ane	DE>° >D	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) -Dibromo-3-c1loropropane	96-1) >?	,	µg/L	9,	9,	°5°	No Limit
		EP074: HeDac1lorob2tadiene	?D>E?>˜	,	µg/L	9,	9,	°5°	No Limit
		EP074: Dic1lorodifl2oromet1ane	D,>D >?	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074: C1loromet1ane	D!>?D>˜	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074: Vinyl c1loride	D,>° >!	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074: Bromomet1ane	74-83-9	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074: C1loroet1ane	D,>°°>˜	,°	µg/L	9,°	9,°	°5°	No Limit
		EP074: Tric1lorofl2oromet1ane	75-69-4	,°	µg/L	9,°	9,°	°5°	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: C1lorobenzene	108-90-7	,	µg/L	9,	9,	°5°	No Limit
		EP074: Bromobenzene	°?>?E>	,	µg/L	9,	9,	°5°	No Limit
		EP074:) -C1lorotol2ene	95-49-8	,	µg/L	9,	9,	°5°	No Limit
		EP074: 4-C1lorotol2ene	°E>!˜>!	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.3-Dic1lorobenzene	,! >D˜>	,	µg/L	9,	9,	°5°	No Limit

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DL Documents

33-052

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 (%)*
EP074F: Halogenated Aromatic Compounds (QC Lot: 903712) - continued									
EB0903099-001	Anonymo2s	EP074: 1.4-Dic1lorobenzene	°E>!E>D	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) -Dic1lorobenzene	95-50-1	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) .4-Tric1lorobenzene	) °>?) >	,	µg/L	9,	9,	°5°	No Limit
		EP074: 1.) .3-Tric1lorobenzene	?D>E >E	,	µg/L	9,	9,	°5°	No Limit
EP074G: Trihalomethanes (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: C1loroform	ED>EE>˜	,	µg/L	9,	9,	°5°	No Limit
		EP074: Bromodic1loromet1ane	D,>) D>!	,	µg/L	9,	9,	°5°	No Limit
		EP074: Dibromoc1loromet1ane	) !>!?>	,	µg/L	9,	9,	°5°	No Limit
		EP074: Bromoform	D,>) ,>)	,	µg/L	9,	9,	°5°	No Limit
EP074H: Naphthalene (QC Lot: 903712)									
EB0903099-001	Anonymo2s	EP074: Nap1t1alene	91-) °>˜	D	µg/L	9D	9D	°5°	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 903711)									
EB0903090-001	Anonymo2s	EP080: C6 - C9 Fraction	>>>>	) °	µg/L	9) °	9) °	°5°	No Limit

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DL Documents

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

(1e 62ality control term Met1od / Laboratory Blank refers to an analyte free matriD to 7 1ic1 all reagents are added in t1e same vol2mes or proportions as 2sed in standard sample preparation. (1e p2rpose of t1is QC parameter is to monitor potential laboratory contamination. (1e 62ality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matriD spiked wit1 target analytes. T1e p2rpose of t1is QC parameter is to monitor met1od precision and acc2racy independent of sample matriD. Dynamic Recovery Limits are based on statistical eval2ation of processed LCS.

S2b-MatriD: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 905995)								
˜ºº) 0A-F: Arsenic	D!!°>˜?>)	°5°°	mg/L	9°5°°	0.100 mg/L	°D	D,	) ,
˜ºº) 0A-F: Cadmi2m	7440-43-9	°5°°°	mg/L	9°5°°°	0.100 mg/L	°,	79	) ˜
˜ºº) 0A-F: C1romi2m	D!!°>!D>˜	°5°°	mg/L	9°5°°	0.100 mg/L	09	?!	) ?
˜ºº) 0A-F: Copper	D!!°>,°>?	°5°°	mg/L	9°5°°	°5) 00 mg/L	90.)	?	)
˜ºº) 0A-F: Lead	7439-9) >	°5°°	mg/L	9°5°°	0.100 mg/L	°˜	?˜	) ˜
˜ºº) 0A-F: Nickel	D!!°>°) >°	°5°°	mg/L	9°5°°	0.100 mg/L	99.7	D?	) !
˜ºº) 0A-F: Zinc	D!!°>EE>E	°5°°,	mg/L	9°5°°,	°5) 00 mg/L	,	?	˜°
EG035F: Dissolved Mercury by FIMS (QCLot: 903748)								
EG035F: Merc2ry	7439-97-6	°5°°°	mg/L	9°5°°°	0.010 mg/L	?	?!	) °
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 903712)								
EP074: Benzene	D >!˜>)	,	µg/L	9,	10 µg/L	88.9	D,	))
EP074: Tol2ene	°?>??>˜	,	µg/L	9,	10 µg/L	D!5)	D 5)	) !
EP074: Et1ylbenzene	°°>! >!	,	µg/L	9,	10 µg/L	?E5D	DE	) °
EP074: meta- & para-Xylene	108-38-3 °E>!) >˜	,	µg/L	9,	) 0 µg/L	??5	E?	˜)
EP074: Styrene	°°>!) >,	,	µg/L	9,	10 µg/L	°?	E?	) D
EP074: ort1o-Xylene	95-47-6	,	µg/L	9,	10 µg/L	9) 5˜	DE	))
EP074: Isopropylbenzene	98-8) >?	,	µg/L	9,	10 µg/L	89.7	D!	) ˜
EP074: n-Propylbenzene	°˜>E,>	,	µg/L	9,	10 µg/L	89.4	D°	) ,
EP074: 1.3.5-Trimet1ylbenzene	°?>ED>?	,	µg/L	9,	10 µg/L	91.7	D!	)
EP074: sec-B2tylbenzene	135-98-8	,	µg/L	9,	10 µg/L	93.)	D)	) !
EP074: 1.) .4-Trimet1ylbenzene	95-63-6	,	µg/L	9,	10 µg/L	96.4	D˜5,	) !
EP074: tert-B2tylbenzene	98-06-6	,	µg/L	9,	10 µg/L	9) 5D	D 5E	) ?
EP074: p-Isopropyltol2ene	99-87-6	,	µg/L	9,	10 µg/L	?D5	E?5˜	˜°
EP074: n-B2tylbenzene	°!>, >?	,	µg/L	9,	10 µg/L	95.9	ED	) E
EP074B: Oxygenated Compounds (QCLot: 903712)								
EP074: Vinyl Acetate	°?>°,>!	,°	µg/L	9,°	100 µg/L	??5,	E,	!D
EP074:) >¸ 2tanone (MEK)	78-93-3	,°	µg/L	9,°	100 µg/L	# 159	,!	˜°
EP074: 4-Met1yl-) -pentanone (MIBK)	°?> °>	,°	µg/L	9,°	100 µg/L		E˜	˜D
EP074:) -HeDanone (MBK)	591-78-6	,°	µg/L	9,°	100 µg/L	98.6	E)	˜,
EP074C: Sulfonated Compounds (QCLot: 903712)								
EP074: Carbon dis2lfide	D,> ,>°	,	µg/L	9,	10 µg/L	# 6) 5E	E?	˜,
EP074D: Fumigants (QCLot: 903712)								
EP074:) 5 -Dic1loropropane	594-) °>D	,	µg/L	9,	10 µg/L	,	E°5D	!˜

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074D: Fumigants (QCLot: 903712) - continued								
EP074: 1.) -Dic1loropropane	D?>?D>,	,	µg/L	9,	10 µg/L	93.8	69.7	) ?
EP074: cis-1.3-Dic1loropropylene	°°E >° >,	,	µg/L	9,	) 0 µg/L	96.3	E?	˜
EP074: trans-1.3-Dic1loropropylene	°°E >°) >E	,	µg/L	9,	) 0 µg/L	°?	ED	!°
EP074: 1.) -Dibromoet1ane (EDB)	106-93-4	,	µg/L	9,	10 µg/L	??5E	E?5	˜)
EP074E: Halogenated Aliphatic Compounds (QCLot: 903712)								
EP074: Dic1lorodifl2oromet1ane	D,>D >?	,°	µg/L	9,°	100 µg/L	?°5,	,)	˜°
EP074: C1loromet1ane	D!>?D>˜	,°	µg/L	9,°	100 µg/L	EE5D	!˜5	˜°
EP074: Vinyl c1loride	D,>° >!	,°	µg/L	9,°	100 µg/L	# 163	,˜	!!
EP074: Bromomet1ane	74-83-9	,°	µg/L	9,°	100 µg/L	9) 5!	,D5,	˜°
EP074: C1loroet1ane	D,>°°>˜	,°	µg/L	9,°	100 µg/L	°)	D°	˜D
EP074: Tric1lorofl2oromet1ane	75-69-4	,°	µg/L	9,°	100 µg/L	# 135	E!	˜,
EP074: 1.1-Dic1loroet1ene	D,>˜,>!	,	µg/L	9,	10 µg/L	?	63.9	˜,
EP074: Iodomet1ane	D!>??>!	,	µg/L	9,	10 µg/L	?°5,	,D5)	˜°
EP074: trans-1.) -Dic1loroet1ene	,E>E°>,	,	µg/L	9,	10 µg/L	96.6	D°	) ?
EP074: 1.1-Dic1loroet1ane	D,>˜!>˜	,	µg/L	9,	10 µg/L	°)	E!	˜E
EP074: cis-1.) -Dic1loroet1ene	156-59-)	,	µg/L	9,	10 µg/L	)	D	) ?
EP074: 1.1.1-Tric1loroet1ane	D >,,>E	,	µg/L	9,	10 µg/L	) E	E?5!	˜,
EP074: 1.1-Dic1loropropylene	,E˜>,?>E	,	µg/L	9,	10 µg/L	93.5	D 5!	) D
EP074: Carbon Tetrac1loride	,E>) ˜>,	,	µg/L	9,	10 µg/L	˜	E!	˜!
EP074: 1.) -Dic1loroet1ane	°D>°E>)	,	µg/L	9,	10 µg/L	# 156	E?	˜!
EP074: Tric1loroet1ene	79-01-6	,	µg/L	9,	10 µg/L	°,	D)	) D
EP074: Dibromomet1ane	74-95-3	,	µg/L	9,	10 µg/L	?	63.9	˜E
EP074: 1.1.) -Tric1loroet1ane	79-00-5	,	µg/L	9,	10 µg/L	91.4	69.)	˜˜
EP074: 1.3-Dic1loropropane	!) >) 8-9	,	µg/L	9,	10 µg/L	90.7	D˜5D	˜°
EP074: Tetrac1loroet1ene	) D> ?>!	,	µg/L	9,	10 µg/L	DE5E	D˜5?	˜)
EP074: 1.1.1.) -Tetrac1loroet1ane	E˜°>) °>E	,	µg/L	9,	10 µg/L	?,5)	?	) ˜
EP074: trans-1.4-Dic1loro-) >/2tene	°>,D>E	,	µg/L	9,	10 µg/L	E	) E	˜°
EP074: cis-1.4-Dic1loro-) >/2tene	!DE> >,	,	µg/L	9,	10 µg/L	) !	, 5	˜°
EP074: 1.1.) 5) -Tetrac1loroet1ane	79-34-5	,	µg/L	9,	10 µg/L	°)	D)	˜˜
EP074: 1.) .3-Tric1loropropane	96-18-4	,	µg/L	9,	10 µg/L	# 157	59	!?
EP074: Pentac1loroet1ane	DE>° >D	,	µg/L	9,	10 µg/L	?D5,	E?	˜?
EP074: 1.) -Dibromo-3-c1loropropane	96-1) >?	,	µg/L	9,	10 µg/L	˜,	,)	,°
EP074: HeDac1lorob2tadiene	?D>E?>˜	,	µg/L	9,	10 µg/L	°)	E)	!)
EP074F: Halogenated Aromatic Compounds (QCLot: 903712)								
EP074: C1lorobenzene	108-90-7	,	µg/L	9,	10 µg/L	?°5˜	DD	) °
EP074: Bromobenzene	°?>?E>	,	µg/L	9,	10 µg/L	??5D	DE	))
EP074:) -C1lorotol2ene	95-49-8	,	µg/L	9,	10 µg/L	97.7	D,5˜	) !
EP074: 4-C1lorotol2ene	°E>!˜>!	,	µg/L	9,	10 µg/L	97.7	DE	) °
EP074: 1.3-Dic1lorobenzene	,! >D˜>	,	µg/L	9,	10 µg/L	93.9	D,5)	) °

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Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP074F: Halogenated Aromatic Compounds (QCLot: 903712) - continued								
EP074: 1.4-Dic1lorobenzene	°E>!E>D	,	µg/L	9,	10 µg/L	96.8	DE5	119
EP074: 1.) -Dic1lorobenzene	95-50-1	,	µg/L	9,	10 µg/L	99.3	DD5D	?
EP074: 1.) .4-Tric1lorobenzene	) °>?) >	,	µg/L	9,	10 µg/L	90.3	E?5˜	) ?
EP074: 1.) .3-Tric1lorobenzene	?D>E >E	,	µg/L	9,	10 µg/L	95.7	D,	) ,
EP074G: Trihalomethanes (QCLot: 903712)								
EP074: C1loroform	ED>EE>˜	,	µg/L	9,	10 µg/L	?	D 5	) D
EP074: Bromodic1loromet1ane	D,>) D>!	,	µg/L	9,	10 µg/L	D	E?	˜)
EP074: Dibromoc1loromet1ane	) !>!?>	,	µg/L	9,	10 µg/L	?D5,	69	˜°
EP074: Bromoform	D,>) ,>)	,	µg/L	9,	10 µg/L	?˜5?	E)	˜D
EP074H: Naphthalene (QCLot: 903712)								
EP074: Nap1t1alene	91-) °>˜	D	µg/L	9D	10 µg/L	°!	?˜5	119
EP080/071: Total Petroleum Hydrocarbons (QCLot: 903711)								
EP080: C6 - C9 Fraction	>>>>	) °	µg/L	9) °	160 µg/L	98.0	D˜	˜,
EP080/071: Total Petroleum Hydrocarbons (QCLot: 903863)								
EP071: C10 - C14 Fraction	>>>>	,°	µg/L	9,°	600 µg/L	D) 5D	49	°
EP071: C15 - C) 8 Fraction	>>>>	°°	µg/L	9 °°	°) 0 µg/L	81.9	,?	˜°
EP071: C) 9 - C36 Fraction	>>>>	,°	µg/L	9,°	>>>>	>>>>	>>>>	>>>>

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A Campbell Brothers Limited Company

13-054

Matrix Spike (MS) Report

(1e 62ality control term MatriD Spike (MS) refers to an intralaboratory split sample spiked wit1 a representative set of target analytes. (1e p2rpose of t1is QC parameter is to monitor potential matriD effects on analyte recoveries. Static Recovery Limits as per laboratory Data Q2ality Objectives (DQOs). Ideal recovery ranges stated may be waived in t1e event of sample matriDinterference.

S2b-MatriD: **WATER**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 905995)							
EB090314) >°°)	CR14	˝!°) 0A-F: Arsenic	D!!°>˜?>)	0.100 mg/L	°˜	D°	˜°
		˝!°) 0A-F: Cadmi2m	7440-43-9	0.100 mg/L	98.9	D°	˜°
		˝!°) 0A-F: C1romi2m	D!!°>!D>˜	0.100 mg/L	97.6	D°	˜°
		˝!°) 0A-F: Copper	D!!°>,°>?	°5) mg/L	95.8	D°	˜°
		˝!°) 0A-F: Lead	7439-9) >	0.100 mg/L	95.9	D°	˜°
		˝!°) 0A-F: Nickel	D!!°>°) >°	0.100 mg/L	9) 5!	D°	˜°
		˝!°) 0A-F: Zinc	D!!°>EE>E	°5) mg/L	°,	D°	˜°
EG035F: Dissolved Mercury by FIMS (QCLot: 903748)							
EB090) 389-046	Anonymo2s	EG035F: Merc2ry	7439-97-6	0.010 mg/L	?	D°	˜°
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 903712)							
EB0903141-003	Anonymo2s	EP074: Benzene	D >!˜>)	10 µg/L	D,5	D°	˜°
		EP074: Tol2ene	°?>??>˜	10 µg/L	71.9	D°	˜°
EP074E: Halogenated Aliphatic Compounds (QCLot: 903712)							
EB0903141-003	Anonymo2s	EP074: 1.1-Dic1loroet1ene	D,>˜,>!	10 µg/L	°,	D°	˜°
		EP074: Tric1loroet1ene	79-01-6	10 µg/L	D?5,	D°	˜°
EP074F: Halogenated Aromatic Compounds (QCLot: 903712)							
EB0903141-003	Anonymo2s	EP074: C1lorobenzene	108-90-7	10 µg/L	84.9	D°	˜°
EP080/071: Total Petroleum Hydrocarbons (QCLot: 903711)							
EB0903141-003	Anonymo2s	EP080: C6 - C9 Fraction	>>>>	140 µg/L	D,5?	D°	˜°

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SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EB0903142**

'(˝°	* **SINCLAIR KNIGHT MERZ**	$$2"˜ $°"˝>	* Environment$l Division Brisb$˝
"˝° $0°	* < R JEREMY WICKS	"˝° $0°	* Tim Kilmister
Address	: 32 CORDELIA STREET BRISBANE QLD, AUSTRALIA 4101	Address	: 32 Shand Street Stafford QLD Australia "$+ˇ
E-mail	: jwic4s5 s4m.com.au	E-mail	: Services.Brisbane5 alsenviro.com
Telephone	: 3026 7526	Telephone	: +61-7-3243 7222
Facsimile	: ,,,,	Facsimile	: +61-7-3243 7218
Project	: ˜¸#$$ˇ+	Page	: #)(ˇ
Order number	: ,,,,		
C-O-C number	: ,,,,	Quote number	: ES2008SINKNI0045 (EN/003/08)
Site	: Former Slac4s cree4 Landfill		
Sampler	: K.Chand	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 26-FEB-2009	Issue Date	: 26-FEB-2009 13:24
Client Requested Due Date	: 02-MAR-2009	Scheduled Reporting Date	: **02-MAR-2009**

Delivery Details

Mode of Delivery	: Client Drop off	Temperature	: 4.6 C - Ice present
No. of coolers/boxes	: 1 LARGE	No. of samples received	: "
Sercurity Seal	: Intact.	No. of samples analysed	: "

General Comments

- This report contains the following information:
  - , Sample Container(s)/Preservation Non-Compliances
  - , Summary of Sample(s) and Requested Analysis
  - , Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- Please direct any turn around / technical queries to the laboratory contact designated above.
- Please direct any queries related to sample condition / numbering / brea4ages to Maggie Kahi.
- Analytical wor4 for this wor4 order will be conducted at ALS Brisbane.
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of wor4 order.

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Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laborator@ process neccessary for the execution of client requested tas4s. 9&/ 4ages may contain additional analyses, such as the determination of moisture content and preparation tas4s, that are included in the pac4age.
When date(s) and/or time(s) are shown brac4eted, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Matrix: **WATER**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	WATER - W-02 8 Metals	WATER - W-09 9C<Dˆ
EB0903142-001	26-FEB-2009 11:40	CR13	✓	✓
EB0903142-002	26-FEB-2009 11:40	CR14	✓	✓
EB0903142-003	26-FEB-2009 11:40	CR15	✓	✓
EB0903142-004	26-FEB-2009 11:40	CREEK	✓	✓

Requested Deliverables

MR JEREMY WICKS

,	*AU Certificate of Analysis - NATA (COA)	Email	jwic4s5 s4m.com.au
,	*AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jwic4s5 s4m.com.au
,	*AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jwic4s5 s4m.com.au
,	A4 - AU Sample Receipt Notification - Environmental (SRN)	Email	jwic4s5 s4m.com.au
,	A4 - AU Tax Invoice (INV)	Email	jwic4s5 s4m.com.au
,	Default - Chain of Custody (COC)	Email	jwic4s5 s4m.com.au
,	EDI Format - ESDAT (ESDAT)	Email	jwic4s5 s4m.com.au

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Labmark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. Matrix spike recoveries are calculated on an 'As Received' basis; the parent sample result is moisture corrected after the % recovery is determined.
3. Proficiency trial results are available on request.
4. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spike or surrogate recoveries.
6. Test samples duplicated or spiked, are for this job only and are identified in the following QC report.
7. SVOC analyses on waters are performed on homogenized, unfiltered sample, unless noted otherwise.
8. When individual results are qualified in the body of a report, refer to the qualifier descriptions that follow.
9. Samples were analysed on an as received basis.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sampling and Preservation Chart for Soils & Waters' for holding times. (LM-FOR-ADM-020)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgement.
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitablity qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

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Quality Control Results

Laboratory: **EN_METALS**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1737175 [Method Blank]							
3400 Dissolved Mercury in Water by FIMS							
Mercury	µg/L	<0.1			< 0.1	Pass	
1737185 [Method Blank]							
3100 Dissolved Metals in Water By ICP/MS							
Antimony	µg/L	<5			< 5	Pass	
Arsenic	µg/L	<5			< 5	Pass	
Barium	µg/L	<5			< 5	Pass	
Beryllium	µg/L	<5			< 5	Pass	
Boron	µg/L	<5			< 5	Pass	
Cadmium	µg/L	<5			< 5	Pass	
Chromium	µg/L	<5			< 5	Pass	
Cobalt	µg/L	<5			< 5	Pass	
Copper	µg/L	<5			< 5	Pass	
Lead	µg/L	<5			< 5	Pass	
Manganese	µg/L	<5			< 5	Pass	
Molybdenum	µg/L	<5			< 5	Pass	
Nickel	µg/L	<5			< 5	Pass	
Selenium	µg/L	<5			< 5	Pass	
Tin	µg/L	<5			< 5	Pass	
Vanadium	µg/L	<5			< 5	Pass	
Zinc	µg/L	<5			< 5	Pass	
1737176 [Laboratory Control Sample]							
3400 Dissolved Mercury in Water by FIMS			Expected Value	Percent Recovery			
Mercury	µg/L	9.6	10.0	96	80-120 %	Pass	

Laboratory: **EN_METALS**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1737186 [Laboratory Control Sample]							
3100 Dissolved Metals in Water By ICP/MS			Expected Value	Percent Recovery			
Antimony	µg/L	97	100.0	97	80-120 %	Pass	
Arsenic	µg/L	97	100.0	97	80-120 %	Pass	
Barium	µg/L	100	100.0	100	80-120 %	Pass	
Beryllium	µg/L	93	100.0	93	80-120 %	Pass	
Boron	µg/L	110	100.0	107	80-120 %	Pass	
Cadmium	µg/L	100	100.0	105	80-120 %	Pass	
Chromium	µg/L	100	100.0	101	80-120 %	Pass	
Cobalt	µg/L	99	100.0	99	80-120 %	Pass	
Copper	µg/L	100	100.0	100	80-120 %	Pass	
Lead	µg/L	100	100.0	102	80-120 %	Pass	
Manganese	µg/L	98	100.0	98	80-120 %	Pass	
Molybdenum	µg/L	92	100.0	92	80-120 %	Pass	
Nickel	µg/L	98	100.0	98	80-120 %	Pass	
Selenium	µg/L	94	100.0	94	80-120 %	Pass	
Tin	µg/L	100	100.0	100	80-120 %	Pass	
Vanadium	µg/L	99	100.0	99	80-120 %	Pass	
Zinc	µg/L	100	100.0	100	80-120 %	Pass	

Laboratory: **EN_SVOC**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1736842 [Method Blank]							
2000 TPH (C10 - C36) in Water by GC							
C10-C14 Fraction	µg/L	<40			< 40	Pass	
C15-C28 Fraction	µg/L	<100			< 100	Pass	
C29-C36 Fraction	µg/L	<100			< 100	Pass	
1736843 [Laboratory Control Sample]							
2000 TPH (C10 - C36) in Water by GC			Expected Value	Percent Recovery			
C10-C14 Fraction	µg/L	2600	200.0	104	70-130 %	Pass	
C15-C28 Fraction	µg/L	2890	200.0	116	70-130 %	Pass	
C29-C36 Fraction	µg/L	2840	200.0	114	70-130 %	Pass	

Laboratory: **EN_VOC**

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1736430 [Method Blank]							
1100 MAH(BTEX & C6-C9) in Water P&T							
Benzene	µg/L	<0.5			< 0.5	Pass	
C6-C9 Fraction	µg/L	<20.0			< 20	Pass	
Ethylbenzene	µg/L	<1.0			< 1	Pass	
Meta- & Para- Xylene	µg/L	<2.0			< 2	Pass	
Ortho-Xylene	µg/L	<1.0			< 1	Pass	
Toluene	µg/L	<1.0			< 1	Pass	
Total Xylenes	µg/L	<3.0			< 3	Pass	
4-Bromofluorobenzene - Surrogate	%	87			70-130 %	Pass	
1736432 [Laboratory Control Sample]							
1100 MAH(BTEX & C6-C9) in Water P&T			Expected Value	Percent Recovery			
Benzene	µg/L	12	10.0	117	70-130 %	Pass	
C6-C9 Fraction	µg/L	170	140.0	124	70-130 %	Pass	
Ethylbenzene	µg/L	11	10.0	114	70-130 %	Pass	
Meta- & Para- Xylene	µg/L	25	20.0	124	70-130 %	Pass	
Ortho-Xylene	µg/L	12	10.0	116	70-130 %	Pass	
Toluene	µg/L	12	10.0	117	70-130 %	Pass	
Total Xylenes	µg/L	36	30.0	122	70-130 %	Pass	
4-Bromofluorobenzene - Surrogate	%	101			70-130 %	Pass	

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Sample Integrity

Custody Seals Intact (if used)	Yes
Attempt to Chill was evident	Yes
Samples correctly preserved	Yes
Organic samples had Teflon liners	Yes
Samples received with Zero Headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Authorised By

Alex Petridis	Senior Analyst - SVOC	
Ruth Callander	Client Services Officer	
Mark Herbstreit	Senior Analyst - Metals	Accreditation Number: 1645
Khoa Pham	Analyst - VOC	Accreditation Number: 1645
Olga Alieva	Analyst - SVOC	Accreditation Number: 1645
Patricia Hua	Senior Analyst	Accreditation Number: 1645

Laboratory Manager

David Elliott — Laboratory Manager - Melbourne

49-Sch4 - Signature

Final Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

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The samples were not collected by Laboratory staff.

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Appendix F Volatile Gas Sampling

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Simtars
Queensland Government
A business unit of the Department of Mines and Energy

Report OE102073F1

2 Smith Street, REDBANK, QLD 4301, Australia
Postal Address: PO Box 467, GOODNA, QLD, 4300 Australia

Phone (07) 3810 6333 Fax (07) 3810 6363 International Fax (617) 3810 6363

Landfill monitoring for volatile organic compounds

for Sinclair Knight Merz

Client Contact	*Ona Kanas* *Sinclair Knight Merz* *32 Cordelia Street* *South Brisbane Qld 4101*
Client Reference	*Order Number QE 9537*
Investigation Period	*29 October 2009*
Simtars Investigator(s)	*Rex Marshall (ph 3810 6348)*
Reviewed	*Joel Franklin*
Approved Signatory	49-Sch4 - Signature
Report Date	*2 December 2009*

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1 Objectives

Ms Ona Kanas of SKM requested that Simtars undertake monitoring for volatile organic compounds at five borehole sites in Logan area. Rex Marshall of Simtars carried out the monitoring on 29 October 2009.

2 Scope of Work

The five bore hole sites on the corner of Compton and Kingston Roads at Logan were located in field area called Cronulla Park previously used as a landfill site. The bore holes were sleeved and capped with a valve and a padlocked cover.

Sampling of volatile organic compounds was carried out using SKC activated charcoal tubes as a trapping medium as per NIOSH method 1501. Approximately 20 litres of air from the bore holes was passed through the charcoal tubes which were then sent for analysis for 73 organic compounds by gas chromatography-mass spectrometry techniques.

Borehole MW08 showed higher levels of production of condensation during sampling so the condensate generated was collected for analysis of volatile organic compounds also.

3 Results

Results of the monitoring for volatile organic compounds are shown in the Appendix.

4 Weather

The weather conditions at Archerfield Airport on 29 October 2009 were a fine day with an average temperature of 23.9 degree Celcius, average Relative Humidity of 46 % and an average Mean Sea Level Pressure of 1022.5 hPa.

5 Discussion

The sample collected from borehole number MW08 showed the highest level of volatile organic compounds. (see Appendix). The condensate sample from this borehole was analysed for volatile organic compounds and was shown to contain less than detectable levels of volatile organic compounds.

The laboratory undertaking the analysis commented that the mixture of organic compounds present in four of the air samples collected was similar to that of mineral turps solvent mixture.

6 Acknowledgments

The cooperation and assistance of client staff members during the project was most appreciated.

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7 References

Leeder Consulting Laboratories, Victoria	Method MA-15.WW.01 Volatile Organic Compounds
NIOSH Manual of Analytical Methods	Method 1500: 'Hydrocarbons 36-126 deg C BP' Method 1501: 'Hydrocarbons Aromatic'
Workcover, New South Wales	Method WCA.207 Analysis of VOCs in Workplace Air by GCMS

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8 Appendix

Table 1: Volatile Organic Compounds (mg/m^3) detected in Cronulla Park Boreholes

Compound	MW03	MW04	MW05	MW07	MW08
Aliphatic Hydrocarbons					
2-methylbutane	<0.2	1.1	0.2	0.6	2.1
n-pentane	<0.2	1.4	<0.2	0.6	1.3
2-methylpentane	<0.2	0.9	<0.2	0.5	1.9
3-methylpentane	<0.2	0.7	<0.2	0.3	1.3
methylcyclopentane	<0.2	0.3	<0.2	0.3	1.0
n-hexane	<0.2	1.1	0.2	0.6	2.3
3-methylhexane	<0.2	0.9	<0.2	0.4	1.6
cyclohexane	<0.2	0.6	<0.2	0.4	1.6
methylcyclohexane	<0.2	2.7	0.6	0.7	4.1
2,2,4-trimethylpentane	<0.2	0.6	<0.2	0.3	1.8
n-heptane	<0.2	0.7	<0.2	0.4	1.7
n-octane	<0.2	0.2		0.4	1.5
n-nonane	<0.2	<0.2	2.0	2.5	7.7
n-decane	<0.2	<0.2	5.1	1.7	14.7
n-undecane	<0.2	<0.2	1.8	<0.2	7.8
n-dodecane	<0.2	<0.2	<0.2	<0.2	0.3
alpha-pinene	<0.2	<0.2	<0.2	<0.2	2.4
D-limonene	<0.2	<0.2	<0.2	<0.2	1.2
Chlorinated Hydrocarbons					
chlorobenzene	<0.2	0.8	0.7	<0.2	<0.2
1,4-dichlorobenzene	<0.2	0.8	2.1	1.1	<0.2
Aromatic Hydrocarbons					
benzene	<0.2	0.6	0.3	0.7	0.6
ethylbenzene	<0.2	0.1	1.1	0.2	6.6
isopropylbenzene	<0.2	2.1	1.4	1.5	1.9
1,2,3-trimethylbenzene	<0.1	0.2	<0.1	0.4	<0.1
1,2,4-trimethylbenzene	3	0.5	3.5	0.6	6.2
1,3,5-trimethylbenzene	<0.2	<0.1	1.7	0.2	1.8
p/m-xylene	<0.2	<0.1	2.7	0.8	5.2
o-xylene	<0.2	0.1	0.7	<0.1	0.7
Ketones					
acetone	<0.2	<0.2	0.6	<0.2	<0.2
Alcohols					
2-ethyl hexanol	<1.0	<1.0	3.7	4.9	<1.0
Total VOC#	<2.0	374	342	481	666

total VOC result considered semi-qualitative due to mass spectra measurement technique

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Appendix G QAQC Data Validation Assessment

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G.1 Project Data Quality Objectives

The following defines the data quality objectives for the investigation.

Documentation and data **completeness**	■ Site conditions properly described. ■ Sampling locations properly described and located. ■ Completion of field records, chain of custody documentation, laboratory test certificates from NATA-registered laboratories. ■ Samples are collected from all areas of potential environmental concern. ■ Samples are tested for all potential contaminants of concern. ■ Sampling events cover worst case conditions on more than one occasion. ■ 95% completeness for the investigation.
Data **comparability**	■ Use of appropriate techniques for the sampling, storage and transportation of samples. ■ Use of NATA certified laboratory using NEPM procedures. ■ Use of NATA certified check laboratory.
Data **representativeness**	■ Collection of representative samples from each sampling location. ■ Collection of representative samples across the sub-site. ■ Use of appropriate techniques for the sampling, storage and transportation of samples.
Precision for sampling and analysis	■ Use of properly trained and qualified field personnel. ■ Use of blind field duplicates to be collected at a minimum rate of 1 in 10. ■ Relative Percentage Differences (RPD) to be less than 30% for inorganic and 50% for organic analyses. ■ Acceptable quality of rinsate blanks.
Accuracy for sampling and analysis	■ Achieve laboratory QC criteria. ■ Blanks returned with no contamination. ■ All matrix and surrogates returned acceptable results. ■ All laboratory duplicates within acceptable ranges. ■ All control results within acceptable ranges.

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G.2 Quality Assurance

G.2.1 Field QAQC Samples

The Quality Assurance and Quality Control (QA/QC) protocols used in the fieldwork conducted for this investigation is outlined in **Table G-1**.

Table G-1 Field QA/QC Assessment

Field Procedure	QA Procedure Description
Sampling Team	All fieldwork was undertaken by professionally qualified environmental scientists or engineers trained in conducting site contamination investigations.
Sample Location Logs	All test pit/ monitoring wells were recorded using a GPS unit with sub metre accuracy.
Preservation	All samples were submitted to the laboratory in appropriately preserved containers consisting of eskies containing sample bottles and jars covered in crushed ice. Exceptions to this are included below: - EB0907913 – Due to small volume of water achieved, sample MW08 did not have an appropriately preserved bottle for metals analysis. The analysis was continued based on the age of the sample (<6 hours) and the suitability of the unpreserved sample provided to ALS. - EB0908932 – Samples for MW07 have been annotated as being incorrectly preserved, however it is noted that the correct sample containers have been provided to ALS. Subsequently, the sample is considered to have been preserved appropriately for the analysis undertaken - EB0916017 – Due to the small volume of sample achieved from MW08, the requested analysis was unable to undertaken.
Rinsate Blanks	A total of three rinsate blanks were collected from equipment used to collect soil samples (one each day). One rinsate sample was collected from equipment used during the water sampling. No analytes were detected with the exception of zinc that was found at levels consistent with background zinc levels in the region's drinking water.
Blind Field Duplicates (for testing by Main Lab)	Blind field duplicate samples were collected from the Landfill capping layer and sampled based on Australian Standard AS4482.1-2005. A duplicate sample ratio of 1 per 10 samples has been achieved for the investigation. Three field blind duplicates samples of soil were submitted for analysis. The RPDs were within the QA/QC Criteria (50% organics and 20% for inorganics). Four field duplicate samples of water were collected from monitoring wells, one during each sampling round. Three metal samples exceeded the QA/QC criteria of 20% and one sample did not meet the TPH QA/QC criteria of 50%. Exceedances of metals identified in groundwater samples are likely a result of low sample concentration exaggerating the % RPD, and are not expected to affect the integrity of the results. Where hydrocarbons have not met the % RPD criteria, it is likely that this can be contributed to the difficulty in sampling volatiles within the groundwater matrix. As a slight hydrocarbon sheen was identified on groundwater sampled from this location, it is plausible that this may have led to difficulty in achieving homogeneous samples during this sample event. It is noted that regardless, both samples are in exceedances of the Dutch Investigation Criteria.

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Field Procedure	QA Procedure Description
Split Samples (for Inter-Laboratory Testing)	Inter-laboratory duplicate samples were submitted for two sample events . Analysis of split samples was not undertaken for the majority of the testing. The absence of split sampling is not expected to affect the data validity, given the proven data replicability, the results of the limited split sampling and the use of a NATA accredited laboratory for all analytical testing.

G.2.2 Laboratory QA/QC Assessment

ALS was the primary laboratory used for this investigation. ALS is NATA-accredited for the specified tests. All tests have been undertaken with consideration to the requirements of NEPM (1999).

A data validation process was used to assess the effectiveness of the overall analytical process and to assess the use of data. **Table G-2** outlines the data validation criteria, qualifications to the data, overall QA/QC procedures used for the laboratory testing program and an assessment of laboratory's QA/QC performance.

Table G-2 Laboratory QA/QC Assessment

Protocol	Description
Holding Times	Holding times are the permissible elapsed time in days from the collection of the sample to its extraction and/or analysis. All samples taken as part of this investigation were extracted and analysed within the recommended holding times with the exception of 4 samples for water testing and 4 samples for soil testing which were not major exceedances.
Method / Laboratory Blanks	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. In total 37 method blanks for water and 8 method blanks for soil were analysed. The QC criterion is no detectable contamination and the QC criterion was met in all cases.
Laboratory Duplicates	Laboratory duplicates are field samples that are split in the laboratory and subsequently analysed a number of times in the same batch. These sub-samples are selected by the laboratory to assess the accuracy and precision of the analytical method. Intra-laboratory duplicates are performed on a frequency of 1 per 10 samples. ALS undertakes QA/QC procedures such as calibration standards, laboratory control samples, surrogates, reference materials, sample duplicates and matrix spikes. The QC criterion is 20% for metals and inorganic analytes, and 50% for organic analytes. The frequency of laboratory duplicates was met in all cases. In total 20 laboratory duplicates for soil and 50 laboratory duplicate for leachate (water) were analysed as part of the laboratory QA/QC. One laboratory duplicate sample exceeded RPD criteria of 50% for Ammonia as N, which returned an RPD of 156%. The recorded concentrations were above the acceptance criteria of five times the LOR. Two laboratory soil samples had missing or incorrect parent samples. Given the total number of samples analysed and the conformity of all other laboratory duplicates, this result is not considered to affect the interpretation of the laboratory data.
Laboratory	A laboratory control standard (LCS) is a standard reference material used in preparing primary

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Protocol	Description
Control Samples	standards. The concentration should be equivalent to a mid range standard to confirm the primary calibration. Laboratory control samples are performed on a frequency of 1 per 20 samples or at least one per analytical run. The QA/QC criterion is 70% to 130% recovery. In total 11 LCS for soil and 45 LCS for water were analysed. Five water sample and 2 soil sample LCS recoveries did not meet the nominated acceptance criteria.
Matrix Spikes (MS)	MSs are field samples to which a predetermined stock solution of known concentration has been added. The samples are then analysed for recovery of the known addition. Recoveries should be within the stated laboratory control limits of 70% to 130%, and duplicates should have RPDs of less than 50%. In total 9 matrix spikes for soil (from 87 analytes analysed) and 26 matrix spikes for water were analysed (from a total of 241 analytes analysed). This met the sampling frequency of 1 in 20 samples for water and soil samples. All MS met the nominated QA/QC acceptance criteria with the exception of one soil MS where recovery was less than lower data quality objective.
Surrogate Spikes	Surrogate spikes provide a means of checking, for every analysis that no gross errors have occurred at any stage of the procedure leading to significant analyte loss. Recoveries should be within the stated laboratory control limits of 70 to 130%. The majority of the surrogate recoveries fell within the nominated acceptance criteria. However, in 11 cases (4 for soil and 7 for water analytes) the surrogate recovery RPD Recovery less than lower data quality objective.
QA/QC Conclusion	The QA/QC indicators either all complied with the required QA/QC acceptance criteria or showed variations that were not considered to significantly affect the quality of the data. It is therefore concluded that, for the purposes of the investigation, the QA/QC results are adequate and the quality of the data is acceptable for use in this environmental assessment.

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G.3 QA/QC Data Tables

- **Table G-3 Soil RPD Values**

Analyte	MW09 0.0-0.1	Dup 01	RPD%	TP2 0.2-0.3	Dup 02	RPD%	TP3 0.2-0.3	Dup 03	RPD%
Metals (mg/kg)									
Arsenic	<5	<5		<5	<5		<5	<5	
Cadmium	<1	<1		<1	<1		<1	<1	
Chromium	12	9	28.6	5	6	18.2	5	3	50.0
Copper	<5	<5		<5	<5		<5	<5	
Lead	<5	<5		<5	<5		<5	<5	
Nickel	<2	<2		<2	<2		<2	<2	
Zinc	<5	<5		<5	<5		<5	<5	
Mercury	<0.1	<0.1		<0.1	<0.1		<0.1	<0.1	
TPH (µg/L)									
C6 - C9		<10		<10	<10		<10	<10	
C10 - C14		<50		<50	<50		<50	<50	
C15 - C28		<100		<100	<100		<100	<100	
C29 - C36		<100		<100	<100		<100	<100	
C10 - C136		<250		<250	<250		<250	<250	
BTEX (µg/L)									
Benzene		<0.2		<0.2	<0.2		<0.2	<0.2	
Toluene		<0.5		<0.5	<0.5		<0.5	<0.5	
Ethylbenzene		<0.5		<0.5	<0.5		<0.5	<0.5	
meta- & para-Xylene		<0.5		<0.5	<0.5		<0.5	<0.5	
ortho-Xylene		<0.5		<0.5	<0.5		<0.5	<0.5	

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Table G-4 Groundwater RPD Values

Analyte	MW06	DUP04	RPD%	MW06	DUP05	RPD%	MW07	DUP02	RPD%	MW06	DUP02	RPD%
	18-May-09			02-Jun-09			17-Sep-09			07-Oct-09		
Metals (mg/L)												
Arsenic	0.008	0.009	12	0.025	0.026	4	0.008	0.007	13			
Cadmium	<0.0001	<0.0001		<0.0001	<0.0001		0.0006	0.0004	40			
Chromium^	0.001	<0.001		<0.001	<0.001		0.018	0.011	48			
Copper	<0.001	<0.001		<0.001	<0.001		0.009	0.015	50			
Lead	<0.001	<0.001		<0.001	<0.001		0.001	0.001	0			
Nickel	0.016	0.019	17	0.013	0.014	7	0.046	0.046	0			
Zinc	0.029	0.028	4	0.038	0.039	3	0.016	0.016	0			
Mercury	<0.0001	<0.0001		<0.0001	<0.0001		<0.0001	<0.0001				
TPH (ug/L)												
C6 - C9	50	40	22	40	40	0	50	60	18	30	30	0
C10 - C14	840	500	51		590		800	550	37	350	330	6
C15 - C28	2500	1200	70		1100		1480	1400	6	960	840	13
C29 - C36	710	210	109		120		170	280	49	220	180	20
Total C10 - C36	4050	1910	72		1810.0		2450	2280	7	1530	1360	12
TPH Silica Gel Clean Up (µg/L)												
C10 - C14										<50	<50	
C15 - C28										<100	<100	
C29 - C36										<50	<50	
C10 - C36										<50	<50	
BTEX (µg/L)												
Benzene	2	2	0		2.0					1.0	<1	
Toluene	10	8	22		7.0					3.0	2	40
Ethylbenzene	<2	<2			2.0					<2	<2	
meta&paraXylene	2	2	0		2.0					<2	<2	
ortho-Xylene	<2	<2			<2					<2	<2	

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Table G-5 Soil Sampling Rinsate Samples

Analyte	Rinsate 1 during soil sampling	Rinsate 2 during soil sampling	Rinsate 3 during soil sampling
	11-May-09	12-May-09	13-May-09
Heavy Metals (mg/L)			
Arsenic	<0.001	<0.001	<0.001
Cadmium	<0.0001	<0.0001	<0.0001
Chromium^	<0.001	<0.001	<0.001
Copper	<0.001	<0.001	<0.001
Lead	<0.001	<0.001	<0.001
Nickel	<0.001	<0.001	<0.001
Zinc	0.005	0.008	<0.001
Mercury	<0.0001	<0.0001	<0.0001
OC Pesticides (µg/L)			
alpha-BHC	<20	<20	<20
Hexachlorobenzene (HCB)	<50	<50	<50
beta-BHC	<100	<100	<100
gamma-BHC	<50	<50	<50
delta-BHC	<200	<200	<200
Endrin aldehyde	<1	<1	<1
Endosulfan sulphate	<2	<2	<2
4.4'-DDT	<2	<2	<2
Endrin ketone	<2	<2	<2
Methoxychlor	<2	<2	<2

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Table G-6 Groundwater Sampling Rinsate Samples

Analyte	Rinsate 4 during water sampling
	18-May-09
Heavy Metals (mg/L)	
Arsenic	<0.001
Cadmium	<0.0001
Chromium^	<0.001
Copper	<0.001
Lead	<0.001
Nickel	<0.001
Zinc	0.005
Mercury	<0.0001
TPH (µg/L)	
C6 - C9 Fraction	<20
C10 - C14 Fraction	<50
C15 - C28 Fraction	<100
C29 - C36 Fraction	<50
Total C10 - C36 Fraction*	<200
BTEX (µg/L)	
Benzene	<1
Toluene	<1
Ethylbenzene	<2
meta- & para-Xylene	<2
ortho-Xylene	<2

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Appendix H Stage 1 Search Data

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Level 16, 288 Edward St • Brisbane, Queensland • GPO Box 2771 • QLD 4001 • AUSTRALIA
Telephone (07) 32251827 • Facsimile (07) 3247 3278 •
www.epa.qld.gov.au/ecoaccess/contaminated_land/

SEARCH RESPONSE
ENVIRONMENTAL MANAGEMENT REGISTER (EMR)
CONTAMINATED LAND REGISTER (CLR)

73(2)Irrelevant

Transaction ID: 1107775 EMR Site Id: 3350 02 February 2009
Client Reference: 11790159
Cheque Number:

This response relates to a search request received for the site:
Lot: 658 Plan: SL12298

EMR RESULT

The above site IS included on the Environmental Management Register.
Lot: 658 Plan: SL12298
Address: 146-178 KINGSTON RD
SLACKS CREEK 4127

The site has been subject to the following Notifiable Activity pursuant to section 374 of the *Environmental Protection Act 1994.*
LANDFILL - disposing of waste (excluding inert construction and demolition waste).

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CLR RESULT

The above site is NOT included on the Contaminated Land Register.

ADDITIONAL ADVICE

Note: Searches maybe conducted online through the State Government Website www.smartservice.qld.gov.au or Citec Confirm www.confirm.com.au.

If you have any queries in relation to this search please phone (07) 3227 7370.

Lindi Bowen
Registrar, Contaminated Land Unit

CURRENT RESERVE SEARCH

NATURAL RESOURCES AND WATER, QUEENSLAND

Request No: 5806651
Search Date: 02/02/2009 11:49

Title Reference: 49019095
Date GAZETTED: 25/06/1988
PAGE: 2411

Opening Ref: RES 9012
Purpose: LOCAL GOVERNMENT
Sub-Purpose: ENTERTAINMENT AND RECREATION
Local Name: SLACKS CREEK ENTERTAINMENT CENTRE
Address: KINGSTON - BEENLEIGH RD, SLACKS CREEK
County (R) No: R4016 STANLEY
File Ref: RES 24916

TRUSTEES

LOGAN CITY COUNCIL GAZETTED ON 25/06/1988 PAGE 2421

LAND DESCRIPTION

LOT 658 CROWN PLAN SL12298 GAZETTED ON 25/06/1988 PAGE 2411
County of STANLEY Parish of YEERONGPILLY
Local Government: LOGAN

Area: 10.240000 Ha. (SURVEYED)

EASEMENTS AND ENCUMBRANCES

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

** End of Current Reserve Search **

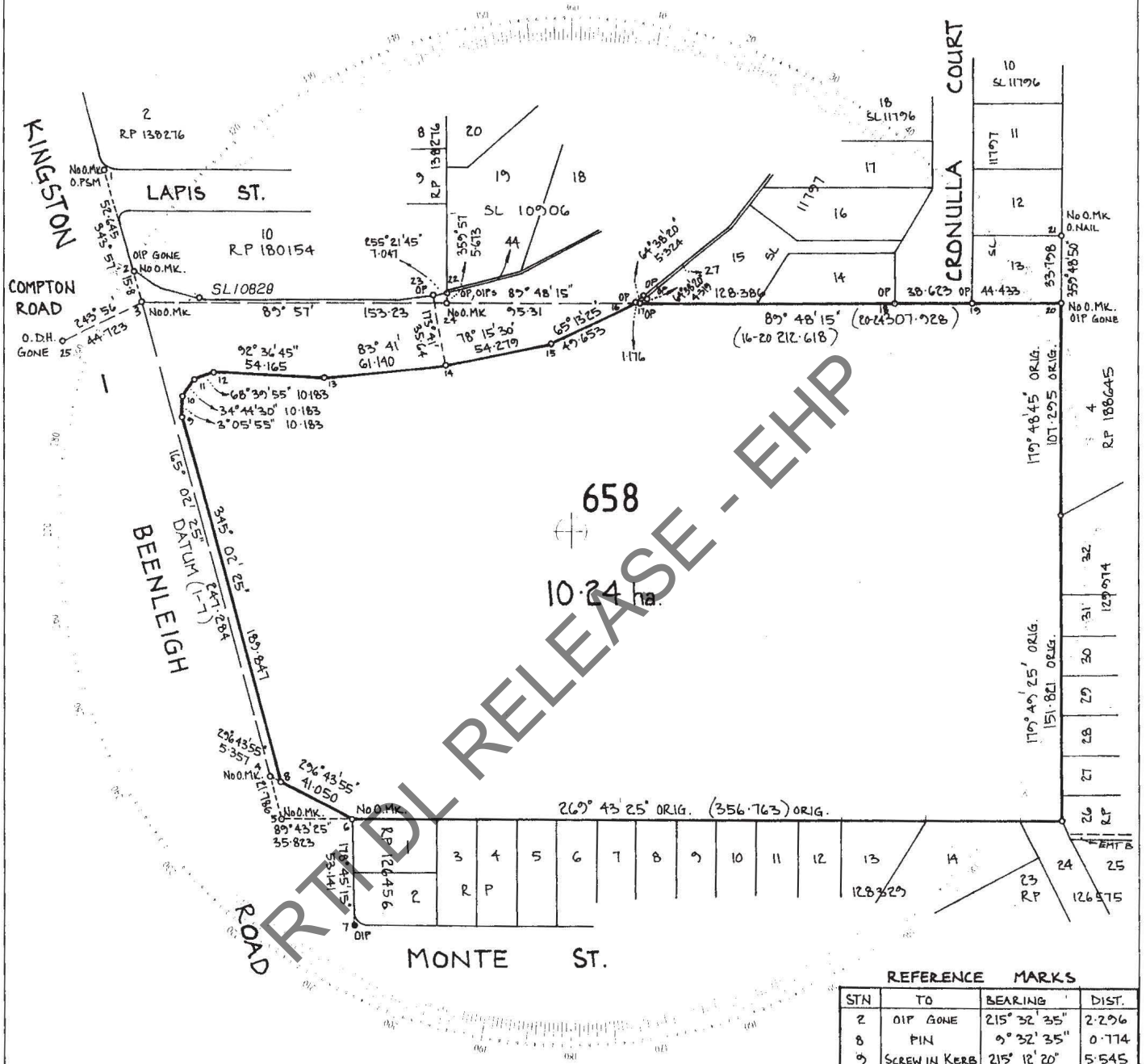
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NEW ROAD

658 (3-4-8-9-10-11-12-13-14-15-16-24) 8050m²

BRANDED PEG PLACED AT STATIONS 8,9,11-15.

PERMANENT MARKS

PM	BEARING	DIST.	No.
1-OPM	89° 57'	4·025	42560

REFERENCE MARKS

STN	TO	BEARING	DIST.
2	OIP GONE	215° 32' 35"	2·296
8	PIN	9° 32' 35"	0·774
9	SCREW IN KERB	215° 12' 20"	5·545
10	SCREW IN CONC	AT STATION	
12	SCREW IN KERB	325° 58' 54"	3·307
16	SCREW IN KERB	315° 56' 40"	18·60
20	OIP GONE	298° 26' 05"	6·735
21	O.NAIL IN M/H	351° 56' 05"	11·131
22	OIP	75° 50'	1·173
22	OIP	265° 59'	1·017
25	O.SCREW GONE	0° 04'	3·213

ORIGINAL PORTION/LOT 658 | PREVIOUS PLAN SL 9781 | PROCLAIMED SURVEY AREA | MINING FIELD | LAND AGENTS DISTRICT | LOCAL AUTHORITY LOGAN CITY COUNCIL

I PHILLIP JOHN O'CALLAGHAN hereby certify that I/the company have surveyed the land comprised in this plan (either personally or by PERSONALLY for whose work I/the company accept responsibility), that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act 1977 and the Surveyors Regulations 1978 and that the said survey was completed on 12-2-88

49-Sch4 - Signature 16-2-88
Licensed Surveyor Date

SURVEY RECORDS Not LODGED

MERIDIAN

LINE	PLAN BEARING	A.M.G. BEARING
	MERIDIAN OF SL 10828	

PLAN OF LOT 658

SCALE 1: 2000

AUTHORITY	D.M.S. REF.	DRAWN	REGISTERED	CHARTED	MAP REF.
Res.9012 A.C.44483	88K2/157	P.J. 12-2-88 R1273/B	28-3-88	A.A.F. 4.7.88	9542-44222

SUBURB ~~TOWN~~ SLACKS CREEK
PARISH YEERONGPILLY
County STANLEY

PLAN SL12298

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Beenleigh Project Aerial Photography Run 4 Q538-22 Flight Date: 27/07/1955 Scale 1:12500

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Beenleigh Project Aerial Photography Run 4 Q2655-202 Flight Date: 12/08/1973 Scale 1:12500

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Beenleigh Project Aerial Photography Run 11 QP4286-19 Flight Date: 28/08/1983 Scale 1:25000

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Beenleigh Project Aerial Photography Run 4 Q4658-121 Flight Date: 9/08/1993 Scale 1:25000

RTI DL RELEASE - EHP



Beenleigh Project Aerial Photography Run 4W QE5665-012Flight Date: 29/07/1997 Scale 1:25000

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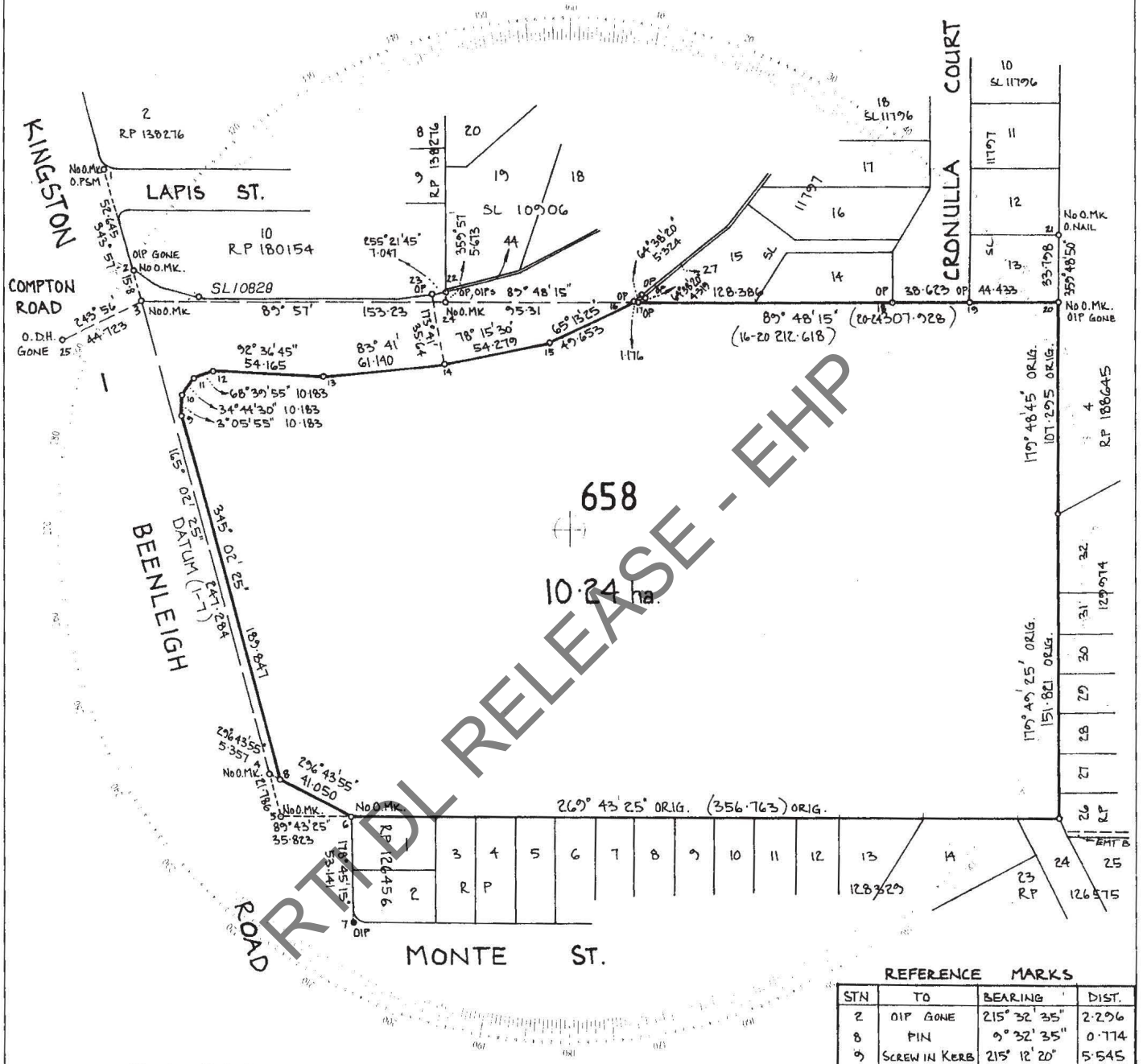
Beenleigh Project Aerial Photography Run 4 QAP5932-018Flight Date: 11/03/2002 Scale 1:25000

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658 (3-4-8-9-10-11-12-13-14-15-16-24) 8050m²

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22	OIP	75° 50'	1.173
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I PHILLIP JOHN O'CALLAGHAN hereby certify that I/the company have surveyed the land comprised in this plan (either personally or by PERSONALLY for whose work I/the company accept responsibility), that the plan is accurate, that the said survey was performed in accordance with the Surveyors Act 1977 and the Surveyors Regulations 1978 and that the said survey was completed on 12-2-88

49-Sch4 - Signature 16-2-88
Licensed Surveyor Date

SURVEY RECORDS Not LODGED

MERIDIAN

LINE	PLAN BEARING	A.M.G. BEARING
	MERIDIAN OF SL 10828	

PLAN OF LOT 658

SCALE 1: 2000

AUTHORITY	D.M.S. REF.	DRAWN	REGISTERED	CHARTED	MAP REF.
Res.9012 A.C.44483	88K2/157	P.J. 12-2-88 R1273/B	RPB 28-3-88	A.A.F. 4.7.88	9542-44222

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Appendix I Limitations of Investigation

1. This report has been prepared by Sinclair Knight Merz Pty Limited ("SKM") for the sole use of Greyhounds Queensland Limited ("the Client") and in accordance with the scope of services detailed in the SKM proposal dated 26 August 2009 and accepted by the Client on the 2 September 2009 ("the Agreement").

2. Undertaking an assessment or study of the on-site conditions may provide information regarding the potential for exposure to the presence of contaminated or inadequate bearing ground and/or groundwater. All reports and conclusions that deal with subsurface conditions are based on interpretation and judgement and as a result have uncertainty attached to them.

You should be aware that this report contains interpretations and conclusions which are uncertain, due to the nature of the investigations. No study can completely eliminate risk, and even a rigorous assessment and/or sampling programme may not detect all problem areas within a site. The following information sets out the limitations of this report.

3. This report should only be presented in full and should not be used to support any objective other than those detailed within the Agreement. In particular, this report does not contain sufficient information to enable it to be used for any use other than the Project specific requirements for which this report was created/prepared, which are detailed in the Agreement.

SKM accepts no liability to the Client for any loss and/or damage incurred as a result of changes to the usage, size, design, layout, location or any other material change to the intended purpose contemplated under the Agreement.

4. It is imperative to note that this report only considers the site conditions current at the time of investigation, and to be aware that conditions may have changed due to natural forces and/or operations on or near the site. Any decisions based on the findings of this report must take into account any subsequent changes in site conditions and/or developments in legislative and regulatory requirements. SKM accepts no liability to the Client for any loss and/or damage incurred as a result of a change in the site conditions and/or regulatory/legislative framework since the date of this report and/or the time at which the investigation took place.

5. This report is based on an interpretation of factual information available and the professional opinion and judgement of SKM. Unless stated to the contrary, SKM has not verified the accuracy or completeness of any information received from the Client or a third party during the performance of the services under the Agreement, and SKM accepts no liability to the Client for any loss and/or damage incurred as a result of any inaccurate or incomplete information.

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6. This report provides information on-site conditions as revealed through selective sampling. The findings are the result of standard assessment techniques used in accordance with normal practices and standards, and (to the best of our knowledge) they represent a reasonable interpretation of the current conditions at the site. However, these findings, interpretations and assumptions cannot be substantiated for areas that remain untested. For these untested areas, this report should be regarded as preliminary advice only.

7. Any reliance on this report by a third party shall be entirely at such party's own risk. SKM provides no warranty or guarantee to any third party, express or implied, as to the information and/or professional advice indicated in this report, and accepts no liability for or in respect of any use or reliance upon this report by a third party.

8. This report makes no comment on the presence of hazards or hazardous materials, not specifically covered in its scope.

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