SGS Environmental Services
Botany Industrial Park
Gate 3, Denison St, Matraville NSW 2036
Telephone Number : (61 2) 9666 1426
Fax Number : (61 2) 9666 1364

SAMPLE RECEIPT CONFIRMATION

COMPANY	:	Geotechnique	FAX NO.	:	02 4722 6161
ATTENTION	:	Paul Gorman	PAGES	:	1
FROM	:	Aileen Hie	DATE	:	11/04/05

This is to confirm that samples for Project **2883/1, Penrith** were received on **07/04/05** the results are expected to be ready on **14/04/05** . Please quote SGS Reference: **36430** when making enquiries regarding this project. Please refer to below which details information about the integrity of the samples and other useful information.

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples, unless otherwise instructed.

Samples received in good order:	YES
Samples received in correct containers:	YES
Samples received without headspace:	YES
Sufficient quantity supplied:	YES
Upon receipt sample temperature:	Cool
Cooling Method:	Ice Pack
Sample containers provided by:	SGS
Samples Clearly Labelled:	YES
Turnaround time requested:	Standard
Completed documentation received:	YES

Comments:

The signed chain of custody will be returned to you with the original report.

3 May 2005

TEST REPORT

Geotechnique
P.O. Box 880
PENRITH
NSW 2751

Your Reference: 2883/1, Penrith
Report Number: 36430A

Attention: Paul Gorman

Dear Paul
The following samples were received from you on the date indicated.

Samples: Qty.	3 Waters
Date of Receipt of Samples:	07/04/05
Date of Receipt of Instructions:	28/04/05
Date Preliminary Report Faxed:	Not Issued

These samples were analysed in accordance with your written instructions.
A copy of the instructions is attached with the analytical report.

The results and associated quality control are contained in the following pages of this report. Unless otherwise stated, solid samples are expressed on a dry weight basis (moisture has been supplied for your information only), air and liquid samples as received.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully
SGS ENVIRONMENTAL SERVICES

Edward Ibrahim
Approved Signatory

SGS Australia Pty Ltd
ABN 44 000 964 278
Environmental Services Botany Industrial Park Gate 3, Denison Street, Matraville 2036 NSW Australia
t +61 (0)2 9666 1426 f +61 (0)2 9666 1364 url www.sgs.com

Hardness by Calculation Our Reference: Your Reference Sample Type	UNITS ---------- ----------	36430A-1 GW1a water	36430A-2 GW2a water	36430A-3 GW3a water
Calcium	mg/L	89	670	810
Magnesium	mg/L	41	330	450
Total Hardness by Calculation	mg/L	390	3,036	3,888

Method ID	Methodology Summary
SEM-001	Metals - Determination of various metals using Air / Acetylene Flame Atomic Absorption Spectroscopy. In accordance with APHA 20th ED, 3111A, C.
SEI-014	Hardness - determined by a calculation based on the Calcuim and Magnesium content of the sample, in accordance with APHA 20th ED, 2340-B.

QUALITY CONTROL Hardness by Calculation	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Calcium	mg/L	0.01	SEM-001	<0.01	36430A-1	89 || 91 || RPD: 2	Blank	106 || 106 || RPD: 0
Magnesium	mg/L	0.03	SEM-001	<0.03	36430A-1	41 || 42 || RPD: 2	Blank	106 || 106 || RPD: 0
Total Hardness by Calculation	mg/L	0	SEI-014	0.00	36430A-1	390 || 400 || RPD: 3	Blank	[NT]

Result Codes

[INS]	:	Insufficient Sample for this test	[HBG]	:	Results not Reported due to High Background Interference
[NR]	:	Not Requested	*	:	Not part of NATA Accreditation
[NT]	:	Not tested	[N/A]	:	Not Applicable

Result Comments

Date Organics extraction commenced: N/A
NATA Corporate Accreditation No. 2562, Site No 4354
Note: Test results are not corrected for recovery (excluding Dioxins/Furans and PAH in XAD and PUF).

Quality Control Protocol

Reagent Blank: Sample free reagents carried through the preparation/extraction/digestion procedure and analysed at the beginning of every sample batch analysis. For larger projects, a reagent blank is prepared and analysed with every 20 samples.
Duplicate: A separate portion of a sample being analysed which is treated the same as the other samples in the batch. A duplicate is prepared at least every 20 samples.
Matrix Spike Duplicates: Sample replicates spiked with identical concentrations of target analyte(s). The spiking occurs during the sample preparation and prior to the extraction/digestion procedure. They are used to document the precision and bias of a method in a given sample matrix. Where there is not enough sample available to prepare a spiked sample, another known soil/sand or water (or Milli-Q water) may be used. A duplicate spiked sample is prepared at least every 20 samples.
Surrogate Spike: Added to all samples requiring analysis for organics (where relevant) prior to extraction. Used to determine the extraction efficiency. They are organic compounds which are similar to the target analyte(s) in chemical composition and behaviour in the analytical process, but which are not normally found in environmental samples.
Internal Standard: Added to all samples requiring analysis for organics (where relevant) after the extraction process; the compounds serve to give a standard of retention time and response, which is invariant from run-to-run with the instruments.
Control Standards: Prepared from a source independent of the calibration standards. At least one control standard is included in each run to confirm calibration validity.
Additional QC Samples: A calibration standard and blank are run after every 20 samples of an instrumental analysis run to assess analytical drift.

Hie, Aileen (Matraville)

From: Paul Gorman [paul.gorman@geotech.com.au]
Sent: Thursday, 28 April 2005 2:47 PM
To: Hie, Aileen (Matraville)
Cc: Frances Kuipers
Subject: SGS Reference 36430 (Penrith)

-114

Aileen,

Could you please analyse the three water samples (GW1a, GW2a, GW3a) for hardness ($CaCO_3$). We would like the results with 48 hours if possible.

Thanks

Paul

GEOTECHNIQUE PTY LTD
(Environmental and Geotechnical Consultants)
PO Box 880
Penrith NSW Australia 2750
ph: 02 4722 2700
fax: 02 4722 2777
email : paul.gorman@geotech.com.au
web: www.geotech.com.au

SGS Ref: 36430A

Due: Mon 2/5/05

48 hr T/A.

APPENDIX G

LABORATORY TEST RESULTS CERTIFICATES

CHAIN OF CUSTODY RECORDS

AMDEL

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www.amdel.com
A subsidiary of The Gribbles Group

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

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

CERTIFICATE OF ANALYSIS

Contents :

Report No. : 5E0035

Attention : Mr John Xu

Client : Geotechnique Pty Ltd
: PO Box 880
: PENRITH NSW 2751

Samples : 2

Reference/Order : 2883/1

Project : PENRITH

Received Samples : 07/01/05 **Instructions** : 07/01/05

Date Reported : 14/01/05

PLEASE SEE FOLLOWING PAGES FOR METHOD LISTING AND RESULTS

RESULTS

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

James McMahon B.Sc.,Ph.D. (Chem.)
Manager - Environmental

amdel

Report No. : 5E0035

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

Method	Description	Extracted	Analysed	Authorised
E7500	Moisture (%w/w)	10/01/05	10/01/05	MNG 096
E5910	Metals by ICP-AES	11/01/05	11/01/05	MCM 093
E5950	Mercury in Soil	11/01/05	11/01/05	MCM 093
E1081	Organochlorine Pesticides and total PCBs	10/01/05	13/01/05	LHA 095
E1230	TPH C6-C9 by Purge & Trap	10/01/05	10/01/05	MNG 094
E1221	TPH (C10-C36)	10/01/05	11/01/05	MNG 094
E1010	Benzene,Toluene,Ethylbenzene & Xylene	10/01/05	10/01/05	MNG 094
E1110	Polycyclic Aromatic Hydrocarbons	10/01/05	11/01/05	LHA 095
E3450	Total Cyanide in Soil	11/01/05	11/01/05	DBL 101
E1290	Volatile Organic Compounds	10/01/05	10/01/05	MNG 094

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NATA Signatory

Initials	Name	Sections/Methods
MCM	James McMahon	093, 094, 095, 101
MNG	Minh Nguyen	094, 095
MFA	Mark Fahmy	094, 095
LHA	Ly Kim Ha	094, 095
DJA	Dilanthi Jayamanne	094
GTO	Greg Towers	094
GPE	Geoff Peterson	095
DLU	Darrel Luck	093
MAV	Merrin Avery	101
DBL	Dianne Blane	101
NCO	Nathan Cooper	101
AGR	Alison Graham	101
PKE	Peter Keyte	101

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Job Number : 5E0035
Client : Geotechnique Pty Ltd
Reference : 2883/1
Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
E7500 Moisture (%w/w) in Soil						
Moistures test performed at 105oC						
Moisture Content	**1**	17%	9%			
E1230 TPH in Soil by Purge & Trap/GC-MS						
C6-C9 Fraction	**5**	nd	nd			
E1221 TPH in Soil						
C10-C14 Fraction	**10**	nd	20			
C15-C28 Fraction	**50**	nd	90			
C29-C36 Fraction	**50**	nd	80			
E1010 BTEX (P&T) in Soil						
Benzene	**0.2**	nd	nd			
Toluene	**1**	nd	nd			
Ethylbenzene	**1**	nd	nd			
m&p-Xylene	**2**	nd	nd			
o-Xylene	**1**	nd	nd			
4-Bromofluorobenzene-SURROGATE	**1**	106%	106%			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E0035

Client : Geotechnique Pty Ltd

Reference : 2883/1

Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
E5910 Metals in Soil						
Arsenic	**5**	nd	nd			
Boron	**10**	nd	nd			
Cadmium	**0.5**	nd	nd			
Chromium	**5**	12	67			
Copper	**5**	6	49			
Nickel	**2**	7	92			
Lead	**5**	8	9			
Selenium	**5**	nd	8			
Tin	**5**	nd	nd			
Zinc	**5**	40	75			
E5950 Mercury in Soil						
Mercury	**0.05**	nd	nd			
E3450 Total Cyanide in Soil						
Total Cyanide	**0.5**	2.0	0.6			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E0035

Client : Geotechnique Pty Ltd

Reference : 2883/1

Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
E1110 Priority PAH's in Soil						
Naphthalene	**0.5**	nd	nd			
Acenaphthylene	**0.5**	nd	nd			
Acenaphthene	**0.5**	nd	nd			
Fluorene	**0.5**	nd	nd			
Phenanthrene	**0.5**	nd	nd			
Anthracene	**0.5**	nd	nd			
Fluoranthene	**0.5**	nd	nd			
Pyrene	**0.5**	nd	nd			
Benz(a)anthracene	**0.5**	nd	nd			
Chrysene	**0.5**	nd	nd			
Benzo(b) & (k)fluoranthene	**1**	nd	nd			
Benzo(a)pyrene	**0.5**	nd	nd			
Indeno(1.2.3-cd)pyrene	**0.5**	nd	nd			
Dibenz(a.h)anthracene	**0.5**	nd	nd			
Benzo(g.h.i)perylene	**0.5**	nd	nd			
Total USEPA Priority PAHs	**0.5**	nd	nd			
2-Fluorobiphenyl-SURROGATE	**1**	81%	99%			
Anthracene-d10-SURROGATE	**1**	84%	101%			
p-Terphenyl-D14-SURROGATE	**1**	85%	103%			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

amdel

Job Number : 5E0035

Client : Geotechnique Pty Ltd

Reference : 2883/1

Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
E1081 OC's & Total PCB's in Soil						
HCB	**0.1**	nd	nd			
a-BHC	**0.1**	nd	nd			
-BHC	**0.1**	nd	nd			
Heptachlor	**0.1**	nd	nd			
Aldrin	**0.1**	nd	nd			
b-BHC	**0.1**	nd	nd			
d-BHC	**0.1**	nd	nd			
Oxychlordane	**0.1**	nd	nd			
Heptachlor epoxide	**0.1**	nd	nd			
Endosulfan 1	**0.1**	nd	nd			
Chlordane-Trans	**0.1**	nd	nd			
Chlordane-Cis	**0.1**	nd	nd			
trans-Nonachlor	**0.1**	nd	nd			
DDE	**0.1**	nd	nd			
Dieldrin	**0.1**	nd	nd			
ndrin	**0.1**	nd	nd			
DDD	**0.1**	nd	nd			
Endosulfan 2	**0.1**	nd	nd			
DDT	**0.1**	nd	nd			
Endosulfan sulfate	**0.1**	nd	nd			
Methoxychlor	**0.1**	nd	nd			
Total Polychlorinated biphenyl	**1**	nd	nd			
2.4.5.6-TCMX-SURROGATE	**1**	97%	101%			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E0035

Client : Geotechnique Pty Ltd

Reference : 2883/1

Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
E1290 Volatile Organic Compounds in Soil						
Benzene	**0.5**	nd	nd			
Bromobenzene	**1**	nd	nd			
Bromochloromethane	**1**	nd	nd			
Bromodichloromethane	**1**	nd	nd			
Bromoform	**1**	nd	nd			
Bromomethane	**1**	nd	nd			
n-Butylbenzene	**1**	nd	nd			
sec-Butylbenzene	**1**	nd	nd			
tert-Butylbenzene	**1**	nd	nd			
Carbon tetrachloride	**1**	nd	nd			
Chlorobenzene	**1**	nd	nd			
Chloroethane	**1**	nd	nd			
Chloroform	**1**	nd	nd			
Chloromethane	**1**	nd	nd			
2-Chlorotoluene	**1**	nd	nd			
4-Chlorotoluene	**1**	nd	nd			
Dibromochloromethane	**1**	nd	nd			
1.2-Dibromo-3-chloropropane	**1**	nd	nd			
1.2-Dibromoethane (EDB)	**1**	nd	nd			
Dibromomethane	**1**	nd	nd			
1.2-Dichlorobenzene	**1**	nd	nd			
1.3-Dichlorobenzene	**1**	nd	nd			
1.4-Dichlorobenzene	**1**	nd	nd			
Dichlorodifluoromethane	**1**	nd	nd			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E0035
Client : Geotechnique Pty Ltd
Reference : 2883/1
Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
1.1-Dichloroethene	1	nd	nd			
1.2-Dichloroethane	1	nd	nd			
1.1-Dichloroethane	1	nd	nd			
cis-1.2-Dichloroethene	1	nd	nd			
trans-1.2-Dichloroethene	1	nd	nd			
1.2-Dichloropropane	1	nd	nd			
1.3-Dichloropropane	1	nd	nd			
2.2-Dichloropropane	1	nd	nd			
1.1-Dichloropropylene	1	nd	nd			
cis-1.3-Dichloropropylene	1	nd	nd			
trans-1.3-Dichloropropylene	1	nd	nd			
Ethylbenzene	1	nd	nd			
Hexachlorobutadiene	1	nd	nd			
Isopropylbenzene	1	nd	nd			
p-Isopropyltoluene	1	nd	nd			
Methylene chloride	1	nd	nd			
Naphthalene	1	nd	nd			
n-Propylbenzene	1	nd	nd			
Styrene	1	nd	nd			
1.1.1.2-Tetrachloroethane	1	nd	nd			
1.1.2.2-Tetrachloroethane	1	nd	nd			
Tetrachloroethene	1	nd	nd			
Toluene	1	nd	nd			
1.2.3-Trichlorobenzene	1	nd	nd			
1.2.4-Trichlorobenzene	1	nd	nd			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E0035
Client : Geotechnique Pty Ltd
Reference : 2883/1
Project : PENRITH

Analyte	Lab No	E170808	E170809			
		SS1	SS2			
	Sample Id	5/6.1.5	5/6.1.5			
	PQL					
1.1.1-Trichloroethane	**1**	nd	nd			
1.1.2-Trichloroethane	**1**	nd	nd			
Trichloroethene	**1**	nd	nd			
Trichlorofluoromethane	**1**	nd	nd			
1.2.3-Trichloropropane	**1**	nd	nd			
1.2.4-Trimethylbenzene	**1**	nd	nd			
1.3.5-Trimethylbenzene	**1**	nd	nd			
Vinyl chloride	**1**	nd	nd			
ortho-Xylene	**1**	nd	nd			
meta- & para-Xylene	**2**	nd	nd			
Pentafluorobenzene-SURROGATE	**1**	114%	113%			
Toluene-D8-SURROGATE	**1**	101%	99%			
4-Bromofluorobenzene-SURROGATE	**1**	124%	82%			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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AMDEL INTERNAL QUALITY ASSURANCE REVIEW.

Job No. 5E0035

General

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

Maximum Holding Times for Soils, Sediments and Waters

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

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

Chain of Custody and Sample Integrity	Yes/NO/NA
Chain of Custody / instructions received with samples	Yes
Custody seals were received intact, if used	NA
Samples were received chilled and in good condition	Yes
Samples received appropriately preserved for all tests	Yes
VOC/SVOC samples were received in teflon lined containers	Yes
Samples received with Zero Headspace	Yes
Chain of Custody completed and attached (if applicable)	Yes

Chromatography Calibration/Acceptence Criteria (if applicable)	
Retention time window meets acceptance criteria (+ /-2%)	Yes
Reference standard meets acceptance criteria (+ /-10%)	Yes
Recalibration standard meets acceptance criteria (+ /-15%)	Yes
Internal standard recovery acceptable.	Yes

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AMDEL INTERNAL QUALITY ASSURANCE REVIEW Cont..

Amdel QA/QC Compliance Assessment

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

N/A= Not Applicable.

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

QA/QC Appendix

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

Additional Comments

James McMahon B.Sc.,Ph.D. (Chem.)
Manager - Environmental

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AMDEL STANDARD LABORATORY QUALIFIER CODES.

Job NO. 5E0035

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

amdel

Job Number : 5E0035

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1230 TPH in Soil by Purge & Trap/GC-MS							
C6-C9 Fraction	100	95			95%		
E1221 TPH in Soil							
C15-C28 Fraction	550	600			109%		
E1010 BTEX (P&T) in Soil							
Benzene	10	9.2			93%		
Toluene	10	9			95%		
Ethylbenzene	10	9			91%		
m&p-Xylene	20	19			93%		
o-Xylene	10	9			92%		

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1230 TPH in Soil by Purge & Trap/GC-MS						
C6-C9 Fraction	**5**	nd				
E1221 TPH in Soil						
C15-C28 Fraction	**50**	nd				
E1010 BTEX (P&T) in Soil						
Benzene	**0.2**	nd				
Toluene	**1**	nd				
Ethylbenzene	**1**	nd				
m&p-Xylene	**2**	nd				
o-Xylene	**1**	nd				

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

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

amdel

Job Number : 5E0035

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E5910 Metals in Soil							
Arsenic	50	47			93%		
Boron	50	50			99%		
Cadmium	50	46			92%		
Chromium	50	51			103%		
Copper	50	51			103%		
Nickel	50	49			99%		
Lead	50	47			95%		
Selenium	50	46			92%		
Tin	50	48			97%		
Zinc	50	48			95%		
E5950 Mercury in Soil							
Mercury	0.50	0.56			111%		
E3450 Total Cyanide in Soil							
Total Cyanide	5	4.8			94%		

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

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

amdel

Job Number : 5E0035

QAQC : Laboratory Duplicate(s)

Analyte	Dupl A	Dupl B	Average	RPD (%)	Dupl A	Dupl B	Average	RPD (%)
E3450 Total Cyanide in Soil (E170808)								
Total Cyanide	1.6	2.0	1.8	22%				

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

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E5910 Metals in Soil						
Arsenic	**5**	nd				
Boron	**10**	nd				
Cadmium	**0.5**	nd				
Chromium	**5**	nd				
Copper	**5**	nd				
Nickel	**2**	nd				
Lead	**5**	nd				
Selenium	**5**	nd				
Tin	**5**	nd				
Zinc	**5**	nd				
E5950 Mercury in Soil						
Mercury	**0.05**	nd				
E3450 Total Cyanide in Soil						
Total Cyanide	**0.5**	nd				

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

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

amdel

Job Number : 5E0035

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1110 Priority PAH's in Soil							
Naphthalene	5	5.0			102%		
Acenaphthylene	5	5.2			106%		
Acenaphthene	5	5.2			105%		
Fluorene	5	5.4			106%		
Phenanthrene	5	5.2			105%		
Anthracene	5	5.4			107%		
Fluoranthene	5	5.4			110%		
Pyrene	5	5.4			107%		
Benz(a)anthracene	5	5.2			104%		
Chrysene	5	5.4			106%		
Benzo(b) & (k)fluoranthene	10	10			104%		
Benzo(a)pyrene	5	5.4			110%		
Indeno(1.2.3-cd)pyrene	5	5.6			113%		
Dibenz(a.h)anthracene	5	5.4			107%		
Benzo(g.h.i)perylene	5	5.4			109%		

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1110 Priority PAH's in Soil						
Naphthalene	**0.5**	nd				
Acenaphthylene	**0.5**	nd				
Acenaphthene	**0.5**	nd				
Fluorene	**0.5**	nd				
Phenanthrene	**0.5**	nd				
Anthracene	**0.5**	nd				
Fluoranthene	**0.5**	nd				
Pyrene	**0.5**	nd				
Benz(a)anthracene	**0.5**	nd				
Chrysene	**0.5**	nd				
Benzo(b) & (k)fluoranthene	**1**	nd				
Benzo(a)pyrene	**0.5**	nd				
Indeno(1.2.3-cd)pyrene	**0.5**	nd				
Dibenz(a.h)anthracene	**0.5**	nd				
Benzo(g.h.i)perylene	**0.5**	nd				

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

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

amdel

Job Number : 5E0035

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1081 OC's & Total PCB's in Soil							
HCB	0.5	0.5			100%		
a-BHC	0.5	0.5			102%		
-BHC	0.5	0.5			102%		
Heptachlor	0.5	0.5			100%		
Aldrin	0.5	0.5			102%		
b-BHC	0.5	0.5			100%		
d-BHC	0.5	0.5			102%		
Oxychlordane	0.5	0.5			104%		
Heptachlor epoxide	0.5	0.5			102%		
Endosulfan 1	0.5	0.5			102%		
Chlordane-Trans	0.5	0.5			102%		
Chlordane-Cis	0.5	0.5			102%		
trans-Nonachlor	0.5	0.5			102%		
DDE	1.0	1.0			102%		
Dieldrin	0.5	0.5			102%		
ndrin	0.5	0.5			104%		
DDD	1	1.0			102%		
Endosulfan 2	0.5	0.5			104%		
DDT	1.0	1.0			98%		
Endosulfan sulfate	0.5	0.5			106%		
Methoxychlor	0.5	0.5			102%		
Total Polychlorinated biphenyl	-	--					

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1081 OC's & Total PCB's in Soil						
HCB	**0.1**	nd				
a-BHC	**0.1**	nd				
g-BHC	**0.1**	nd				
Heptachlor	**0.1**	nd				
Aldrin	**0.1**	nd				
b-BHC	**0.1**	nd				
d-BHC	**0.1**	nd				
Oxychlordane	**0.1**	nd				
Heptachlor epoxide	**0.1**	nd				
Endosulfan 1	**0.1**	nd				
Chlordane-Trans	**0.1**	nd				
Chlordane-Cis	**0.1**	nd				
trans-Nonachlor	**0.1**	nd				
DDE	**0.1**	nd				
Dieldrin	**0.1**	nd				
Endrin	**0.1**	nd				
DDD	**0.1**	nd				
Endosulfan 2	**0.1**	nd				
DDT	**0.1**	nd				
Endosulfan sulfate	**0.1**	nd				
Methoxychlor	**0.1**	nd				
Total Polychlorinated biphenyl	**1**	nd				

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

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

amdel

Job Number : 5E0035

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1290 Volatile Organic Compounds in Soil							
Benzene	10	9.0			91%		
Bromobenzene							
Bromochloromethane							
Bromodichloromethane							
Bromoform							
Bromomethane							
n-Butylbenzene							
sec-Butylbenzene							
tert-Butylbenzene							
Carbon tetrachloride							
Chlorobenzene	10	9			89%		
Chloroethane							
Chloroform							
Chloromethane							
2-Chlorotoluene							
4-Chlorotoluene							
Dibromochloromethane							
1.2-Dibromo-3-chloropropane							
1.2-Dibromoethane (EDB)							
Dibromomethane							
1.2-Dichlorobenzene							
1.3-Dichlorobenzene							
1.4-Dichlorobenzene							
Dichlorodifluoromethane							

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

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

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
1.1-Dichloroethene	10	9			85%		
1.2-Dichloroethane							
1.1-Dichloroethane							
cis-1.2-Dichloroethene							
trans-1.2-Dichloroethene							
1.2-Dichloropropane							
1.3-Dichloropropane							
2.2-Dichloropropane							
1.1-Dichloropropylene							
cis-1.3-Dichloropropylene							
trans-1.3-Dichloropropylene							
Ethylbenzene							
Hexachlorobutadiene							
Isopropylbenzene							
p-Isopropyltoluene							
Methylene chloride							
Naphthalene							
n-Propylbenzene							
Styrene							
1.1.1.2-Tetrachloroethane							
1.1.2.2-Tetrachloroethane							
Tetrachloroethene							
Toluene	10	9			89%		
1.2.3-Trichlorobenzene							
1.2.4-Trichlorobenzene							

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

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

amdel

Job Number : 5E0035

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
1.1.1-Trichloroethane							
1.1.2-Trichloroethane							
Trichloroethene	10	9			89%		
Trichlorofluoromethane							
1.2.3-Trichloropropane							
1.2.4-Trimethylbenzene							
1.3.5-Trimethylbenzene							
Vinyl chloride							
ortho-Xylene							
meta- & para-Xylene							

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1290 Volatile Organic Compounds in Soil						
Benzene	**0.5**	nd				
Bromobenzene	**1**	nd				
Bromochloromethane	**1**	nd				
Bromodichloromethane	**1**	nd				
Bromoform	**1**	nd				
Bromomethane	**1**	nd				
n-Butylbenzene	**1**	nd				
sec-Butylbenzene	**1**	nd				
tert-Butylbenzene	**1**	nd				
Carbon tetrachloride	**1**	nd				
Chlorobenzene	**1**	nd				
Chloroethane	**1**	nd				
Chloroform	**1**	nd				
Chloromethane	**1**	nd				
2-Chlorotoluene	**1**	nd				
4-Chlorotoluene	**1**	nd				
Dibromochloromethane	**1**	nd				
1.2-Dibromo-3-chloropropane	**1**	nd				
1.2-Dibromoethane (EDB)	**1**	nd				
Dibromomethane	**1**	nd				
1.2-Dichlorobenzene	**1**	nd				
1.3-Dichlorobenzene	**1**	nd				
1.4-Dichlorobenzene	**1**	nd				
Dichlorodifluoromethane	**1**	nd				

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
1.1-Dichloroethene	**1**	nd				
1.2-Dichloroethane	**1**	nd				
1.1-Dichloroethane	**1**	nd				
cis-1.2-Dichloroethene	**1**	nd				
trans-1.2-Dichloroethene	**1**	nd				
1.2-Dichloropropane	**1**	nd				
1.3-Dichloropropane	**1**	nd				
2.2-Dichloropropane	**1**	nd				
1.1-Dichloropropylene	**1**	nd				
cis-1.3-Dichloropropylene	**1**	nd				
trans-1.3-Dichloropropylene	**1**	nd				
Ethylbenzene	**1**	nd				
Hexachlorobutadiene	**1**	nd				
Isopropylbenzene	**1**	nd				
p-Isopropyltoluene	**1**	nd				
Methylene chloride	**1**	nd				
Naphthalene	**1**	nd				
n-Propylbenzene	**1**	nd				
Styrene	**1**	nd				
1.1.1.2-Tetrachloroethane	**1**	nd				
1.1.2.2-Tetrachloroethane	**1**	nd				
Tetrachloroethene	**1**	nd				
Toluene	**1**	nd				
1.2.3-Trichlorobenzene	**1**	nd				
1.2.4-Trichlorobenzene	**1**	nd				

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
1.1.1-Trichloroethane	**1**	nd				
1.1.2-Trichloroethane	**1**	nd				
Trichloroethene	**1**	nd				
Trichlorofluoromethane	**1**	nd				
1.2.3-Trichloropropane	**1**	nd				
1.2.4-Trimethylbenzene	**1**	nd				
1.3.5-Trimethylbenzene	**1**	nd				
Vinyl chloride	**1**	nd				
ortho-Xylene	**1**	nd				
meta- & para-Xylene	**2**	nd				

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

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

GEOTECHNIQUE PTY LTD

Lemko Place P O Box 880 Tel: (02) 4722 2700
PENRITH NSW 2750 PENRITH NSW 2751 Fax: (02) 4722 6161
email: info@geotech.com.au

Laboratory Test Request / Chain of Custody Record

Email (in PDF & Excel formats) and hard copy of the results are required.
Report should be sent with attention to Anwar Barbhuyia.

TO: AMDEL LTD
NORTH RYDE LINK BUSINESS PARK
UNIT 7B, 277 LANE COVE ROAD
NORTH RYDE NSW 2113
PH: 02 8874 0500 FAX: 02 8874 0515
ATTN:

Sampling Date: 5+6 January 2005 Job No: 2883/1
Sampled By: DP Project:
Project Manager: PG Location: Penrith

Results required by: FRIDAY, 14 - 01 - 2005

Sampling details: Location	Depth (m)	Sample type: Soil	Water	Heavy Metals As, B, Cd, Cr, Cu Pb, Hg, Ni, Se, Sn, Zn	OCP	PCB	TPH* & BTEX	PAH	Cyanide	VOC			Keep Sample
SPLIT SAMPLE SS1 E170808		USG		✓	✓	✓	✓	✓	✓	✓			
SPLIT SAMPLE SS2 ↓ 09		USG		✓	✓	✓	✓	✓	✓	✓			YES
													YES

7 JAN 2005

Relinquished by: Name	Signature	Date	Received by: Name	Signature	Date
PAUL GORMAN	P Gorman	7/01/2005			7/1/05

Legend:
WG Water sample, glass bottle USG Undisturbed sample (glass jar) DSP Disturbed soil sample (small plastic bag) * Purge & Trap
WP Water sample, plastic bottle DSG Disturbed soil sample (glass) ✓ Test required # Geotechnique Screen

AMDEL LTD

INDUSTRIAL AND ENVIRONMENTAL SERVICES DIVISION

Amdel Limited
Correspondence to:
PO BOX 331
HUNTER REGIONAL MAIL
CENTRE NSW 2310

ABN 38 0081 27 802
99 Mitchell Rd
CARDIFF NSW 2285
Telephone: (02) 4902 4800
Facsimile: (02) 4902 4899

SAMPLE RECEIPT ACKNOWLEDGMENT

TO: Geotechnique Pty Ltd

ATTN: Mr John Xu FAX NO: (02) 4722 6161

FROM: Client Services Cardiff

DATE: 07/01/05 PAGES: 1 of 1

If you have any queries or wish to make any adjustments to analyses performed, please contact this laboratory immediately.

Reference/Order:	288/1
Project:	PENRITH
Our Reference Number :	5E0035
Date Received by Amdel :	07/01/05

ANALYSIS REQUESTED	AMDEL METHOD CODE	NUMBER OF SAMPLES	ESTIMATED REPORT DATE (COB)
Moisture (%w/w)	E7500	2	
Metals by ICP-AES	E5910	2	Amdel's turnaround times
Mercury in Soil	E5950	2	are typically 3-5 working
Organochlorine Pesticides and total PCB E1081		2	days.
TPH C6-C9 by Purge & Trap	E1230	2	
TPH (C10-C36)	E1221	2	You report will be avaiable
Benzene,Toluene,Ethylbenzene & Xylene	E1010	2	on the: //
Polycyclic Aromatic Hydrocarbons	E1110	2	14/01/05
Total Cyanide in Soil	E3450	2	
Volatile Organic Compounds	E1290	2	
Batch Charge	E7619	1	
Domestic Freight	E7622	1	
Australian GST	GST		

QCNOTE10

Sample integrity upon receipt

*	Samples were received chilled/chilling (refer to COC for temperature records(if space provided)).	YES
*	Samples received in good condition and appropriately preserved for all tests.	YES
*	VOC/SVOC samples were received in teflon lined lids.	YES
*	VOC samples were received with Zero Headspace.	YES
*	Samples were recieved in sufficient time to allow us to meet holding time requirements.	YES

** We have received the samples referenced above and they are now being processed in our laboratory. Samples received after 4pm are considered as recieved the next working day for turnaround purposes. Surcharges for urgent turn-around requests may apply.

UNLESS ADVISED OTHERWISE - Sample analysis will be commenced regardless of integrity issues. Any non-comformance will be recorded on the final report.

amdel
www.amdel.com
A subsidiary of The Gribbles Group

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

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

CERTIFICATE OF ANALYSIS

Contents :

Report No.	:	5E0055
Attention	:	Mr John Xu
Client	:	Geotechnique Pty Ltd : PO Box 880 : PENRITH NSW 2751
Samples	:	8
Reference/Order	:	2883/1
Project	:	PENRITH
Received Samples	:	11/01/05
Instructions	:	11/01/05
Date Reported	:	18/01/05

PLEASE SEE FOLLOWING PAGES FOR METHOD LISTING AND RESULTS

RESULTS

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

James McMahon B.Sc., Ph.D. (Chem.)
Manager - Environmental

amdel

Report No. : 5E0055

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

Method	Description	Extracted	Analysed	Authorised
E7500	Moisture (%w/w)	12/01/05	13/01/05	MCM 096
E5910	Metals by ICP-AES	17/01/05	18/01/05	MCM 093
E5950	Mercury in Soil	13/01/05	14/01/05	MCM 093
E1080	Organochlorine Pesticides	12/01/05	13/01/05	LHA 095

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NATA Signatory

Initials	Name	Sections/Methods
MCM	James McMahon	093, 094, 095, 101
MNG	Minh Nguyen	094, 095
MFA	Mark Fahmy	094, 095
LHA	Ly Kim Ha	094, 095
DJA	Dilanthi Jayamanne	094
GTO	Greg Towers	094
GPE	Geoff Peterson	095
DLU	Darrel Luck	093
MAV	Merrin Avery	101
DBL	Dianne Blane	101
NCO	Nathan Cooper	101
AGR	Alison Graham	101
PKE	Peter Keyte	101

amdel

Job Number : 5E0055
Client : Geotechnique Pty Ltd
Reference : 2883/1
Project : PENRITH

Analyte	Lab No	E171062	E171063			
	Sample Id	SS3g	SS3p			
	PQL					
E7500 Moisture (%w/w) in Soil						
Moistures test performed at 105oC						
Moisture Content	**1**	13%	12%			
E5910 Metals in Soil						
Arsenic	**5**	--	5			
Boron	**10**	--	nd			
Cadmium	**0.5**	--	nd			
Chromium	**5**	--	13			
Copper	**5**	--	17			
Nickel	**2**	--	11			
Lead	**5**	--	26			
Selenium	**5**	--	nd			
Tin	**5**	--	nd			
Zinc	**5**	--	33			
E5950 Mercury in Soil						
Mercury	**0.05**	--	nd			

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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Job Number : 5E0055

Page 2 of 2

Client : Geotechnique Pty Ltd

plus Cover Page

Reference : 2883/1

Project : PENRITH

Analyte	Lab No	E171062				
	Sample Id	SS3g				
	PQL					
E1080 Organochlorine Pesticides in Soil						
HCB	**0.1**	nd				
a-BHC	**0.1**	nd				
g-BHC	**0.1**	nd				
Heptachlor	**0.1**	nd				
Aldrin	**0.1**	nd				
b-BHC	**0.1**	nd				
d-BHC	**0.1**	nd				
Oxychlordane	**0.1**	nd				
Heptachlor epoxide	**0.1**	nd				
Endosulfan 1	**0.1**	nd				
Chlordane-Trans	**0.1**	nd				
Chlordane-Cis	**0.1**	nd				
trans-Nonachlor	**0.1**	nd				
DDE	**0.1**	nd				
Dieldrin	**0.1**	nd				
Endrin	**0.1**	nd				
DDD	**0.1**	nd				
Endosulfan 2	**0.1**	nd				
DDT	**0.1**	nd				
Endosulfan sulfate	**0.1**	nd				
Methoxychlor	**0.1**	nd				
2.4.5.6-TCMX-SURROGATE	**1**	128%				

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

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

Refer to Amdel standard laboratory qualifier codes for comments.

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AMDEL INTERNAL QUALITY ASSURANCE REVIEW.

Job No. 5E0055

General

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

Maximum Holding Times for Soils, Sediments and Waters

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

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

Chain of Custody and Sample Integrity	Yes/NO/NA
Chain of Custody / instructions received with samples	Yes
Custody seals were received intact, if used	NA
Samples were received chilled and in good condition	Yes
Samples received appropriately preserved for all tests	Yes
VOC/SVOC samples were received in teflon lined containers	NA
Samples received with Zero Headspace	NA
Chain of Custody completed and attached (if applicable)	Yes

Chromatography Calibration/Acceptence Criteria (if applicable)

Retention time window meets acceptance criteria (+ /-2%)	NA
Reference standard meets acceptance criteria (+ /-10%)	NA
Recalibration standard meets acceptance criteria (+ /-15%)	NA
Internal standard recovery acceptable.	NA

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AMDEL INTERNAL QUALITY ASSURANCE REVIEW Cont..

Amdel QA/QC Compliance Assessment

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

N/A= Not Applicable.

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

QA/QC Appendix

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

Additional Comments

James McMahon B.Sc.,Ph.D. (Chem.)
Manager - Environmental

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AMDEL STANDARD LABORATORY QUALIFIER CODES.

Job NO. 5E0055

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

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Job Number : 5E0055

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E5910 Metals in Soil							
Arsenic	50	47			95%		
Boron	50	50			92%		
Cadmium	50	47			94%		
Chromium	50	51			102%		
Copper	50	52			103%		
Nickel	50	49			98%		
Lead	50	47			94%		
Selenium	50	45			90%		
Tin	50	50			100%		
Zinc	50	46			92%		
E5950 Mercury in Soil							
Mercury	0.50	0.47			94%		

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E5910 Metals in Soil						
Arsenic	**5**	nd				
Boron	**10**	nd				
Cadmium	**0.5**	nd				
Chromium	**5**	nd				
Copper	**5**	nd				
Nickel	**2**	nd				
Lead	**5**	nd				
Selenium	**5**	nd				
Tin	**5**	nd				
Zinc	**5**	nd				
E5950 Mercury in Soil						
Mercury	**0.05**	nd				

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

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

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Job Number : 5E0055

QAQC : Laboratory Control Sample(s)

Analyte	Level	Level Detected			Recovery Details		
		Result1	Result2	Result3	Rec 1 (%)	Rec 2 (%)	Rec 3 (%)
E1080 Organochlorine Pesticides in Soil							
HCB	0.5	0.5			108%		
a-BHC	0.5	0.5			109%		
-BHC	0.5	0.5			108%		
Heptachlor	0.5	0.5			109%		
Aldrin	0.5	0.5			110%		
b-BHC	0.5	0.5			107%		
d-BHC	0.5	0.5			101%		
Oxychlordane	0.5	0.5			108%		
Heptachlor epoxide	0.5	0.5			108%		
Endosulfan 1	0.5	0.5			106%		
Chlordane-Trans	0.5	0.5			108%		
Chlordane-Cis	0.5	0.5			108%		
trans-Nonachlor	0.5	0.5			107%		
DDE	1	1.2			113%		
Dieldrin	0.5	0.5			108%		
Endrin	0.5	0.5			108%		
DDD	1	1.0			108%		
Endosulfan 2	0.5	0.6			112%		
DDT	1	1.0			105%		
Endosulfan sulfate	0.5	0.6			111%		
Methoxychlor	0.5	0.5			109%		

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

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

QAQC : Method Blank(s)

ANALYTE	Sample ID PQL	Blank1	Blank2	Blank3	Blank4	Blank5
E1080 Organochlorine Pesticides in Soil						
HCB	**0.1**	nd				
a-BHC	**0.1**	nd				
g-BHC	**0.1**	nd				
Heptachlor	**0.1**	nd				
Aldrin	**0.1**	nd				
b-BHC	**0.1**	nd				
d-BHC	**0.1**	nd				
Oxychlordane	**0.1**	nd				
Heptachlor epoxide	**0.1**	nd				
Endosulfan 1	**0.1**	nd				
Chlordane-Trans	**0.1**	nd				
Chlordane-Cis	**0.1**	nd				
trans-Nonachlor	**0.1**	nd				
DDE	**0.1**	nd				
Dieldrin	**0.1**	nd				
Endrin	**0.1**	nd				
DDD	**0.1**	nd				
Endosulfan 2	**0.1**	nd				
DDT	**0.1**	nd				
Endosulfan sulfate	**0.1**	nd				
Methoxychlor	**0.1**	nd				

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

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

GEOTECHNIQUE PTY LTD

Laboratory Test Request / Chain of Custody Record

Lemko Place | P O Box 880 | Tel: (02) 4722 2700 | Fax: (02) 4722 6161
PENRITH NSW 2750 | PENRITH NSW 2751 | email: info@geotech.com.au

Email (in PDF & Excel formats) and hard copy of the results are required.
Report should be sent with attention to Anwar Barbhuyia.

TO: AMDEL LTD
NORTH RYDE LINK BUSINESS PARK
UNIT 7B, 277 LANE COVE ROAD
NORTH RYDE NSW 2113
PH: 02 8874 0500 FAX: 02 8874 0515
ATTN:

Sampling Date: 7+10 January 2005 **Job No:** 2883/1
Sampled By: DP **Project:**
Project Manager: PG **Location:** Penrith

Results required by: TUESDAY, 19 - 01 - 2005

Sampling details: Location	Depth (m)	Sample type: Soil	Water	Heavy Metals As, B, Cd, Cr, Cu Pb, Hg, Ni, Se, Sn, Zn	OCP	PCB	TPH* & BTEX	PAH	Cyanide	VOC			Keep Sample
SPLIT SAMPLE S1g	E17065	DSG											YES
SPLIT SAMPLE S2g	7	DSG											YES
SPLIT SAMPLE S3g	8	DSG											
Composite SS3	E17065			✓	✓								
(please composite above samples)	composite SS3p			✓ E17065									
S1p		DSP											
S2p		DSP											
S3p		DSP											

11 JAN 2005
560055

Relinquished by: Name	Signature	Date	Received by: Name	Signature	Date
PAUL GORMAN	P Gorman	11/01/2005			11/1/05 2.30

Legend:
WG Water sample, glass bottle | USG Undisturbed sample (glass jar | DSP Disturbed soil sample (small plastic bag) | * Purge & Trap
WP Water sample, plastic bottle | DSG Disturbed soil sample (glass j | ✓ Test required | # Geotechnique Screen

AMDEL LTD

INDUSTRIAL AND ENVIRONMENTAL SERVICES DIVISION

Amdel Limited
Correspondence to:
PO BOX 331
HUNTER REGIONAL MAIL
CENTRE NSW 2310

ABN 38 0081 27 802
99 Mitchell Rd
CARDIFF NSW 2285
Telephone: (02) 4902 4800
Facsimile: (02) 4902 4899

SAMPLE RECEIPT ACKNOWLEDGMENT

TO: Geotechnique Pty Ltd

ATTN: Mr John Xu FAX NO: (02) 4722 6161

FROM: Client Services Cardiff

DATE: 11/01/05 PAGES: 1 of 2

If you have any queries or wish to make any adjustments to analyses performed, please contact this laboratory immediately.

Reference/Order:	2883/1
Project:	PENRITH
Our Reference Number :	5E0055
Date Received by Amdel :	11/01/05

ANALYSIS REQUESTED	AMDEL METHOD CODE	NUMBER OF SAMPLES	ESTIMATED REPORT DATE (COB)
Moisture (%w/w)	E7500	2	
Metals by ICP-AES	E5910	1	Amdel's turnaround times
Mercury in Soil	E5950	1	are typically 3-5 working
Organochlorine Pesticides	E1080	1	days.
Compositing of Samples	E7050	6	
Batch Charge	E7619	1	You report will be avaiable
Domestic Freight	E7622	1	on the: // 19/1/5
Australian GST	GST		

QCNOTE10

Sample integrity upon receipt

*	Samples were received chilled/chilling (refer to COC for temperature records(if space provided)).	YES
*	Samples received in good condition and appropriately preserved for all tests.	YES
*	VOC/SVOC samples were received in teflon lined lids.	NA
*	VOC samples were received with Zero Headspace.	NA
*	Samples were recieved in sufficient time to allow us to meet holding time requirements.	YES

** We have received the samples referenced above and they are now being processed in our laboratory. Samples received after 4pm are considered as recieved the next working day for turnaround purposes. Surcharges for urgent turn-around requests may apply.

UNLESS ADVISED OTHERWISE - Sample analysis will be commenced regardless of integrity issues. Any non-comformance will be recorded on the final report.

APPENDIX H

ENVIRONMENTAL NOTES

IMPORTANT INFORMATION REGARDING YOUR ENVIRONMENTAL SITE ASSESSMENT

These notes have been prepared by Geotechnique Pty Ltd, using guidelines prepared by the ASFE (Associated Soil and Foundation Engineers). The notes are offered to assist in the interpretation of your environmental site assessment report.

REASONS FOR AN ENVIRONMENTAL ASSESSMENT

Environmental site assessments are typically, though not exclusively, performed in the following circumstances:

- As a pre-acquisition assessment on behalf of a purchaser or a vendor, when a property is to be sold
- As a pre-development assessment, when a property or area of land is to be redeveloped, or the land use has changed, e.g. from a factory to a residential subdivision
- As a pre-development assessment of greenfield sites, to establish baseline conditions and assess environmental, geological and hydrological constraints to the development of e.g. a landfill
- As an audit of the environmental effects of previous and present site usage

Each circumstance requires a specific approach to assessment of soil and groundwater contamination. In all cases the objective is to identify and if possible quantify the risks that unrecognised contamination poses to the ongoing proposed activity. Such risks may be financial (clean-up costs or limitations in site use) and physical (health risks to site users or the public).

ENVIRONMENTAL SITE ASSESSMENT LIMITATIONS

Although information provided by an environmental site assessment can reduce exposure to the risk of the presence of contamination, no environmental site assessment can eliminate the risk. Even a rigorous professional assessment might not detect all contamination within a site. Contaminants could be present in areas that were not surveyed or sampled, or migrate to areas that did not show signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant that may occur; only the most likely contaminants are screened.

AN ENVIRONMENTAL SITE ASSESSMENT REPORT IS BASED ON A UNIQUE SET OF PROJECT SPECIFIC FACTORS

In the following events and in order to avoid cost problems, you should ask your consultant to assess any changes in the conclusion and recommendations made in the assessment:

- When the nature of the proposed development is changed e.g. if a residential development is proposed, rather than a commercial development
- When the size or configuration of the proposed development is altered e.g. if a basement is added
- When the location or orientation of the proposed structure is modified
- When there is a change of land ownership, or
- For application to an adjacent site

ENVIRONMENTAL SITE ASSESSMENT FINDINGS ARE PROFESSIONAL ESTIMATES

Site assessment identifies actual sub-surface conditions only at those points where samples are taken, when they are taken. Data obtained from the sampling and subsequent laboratory analyses are interpreted by geologists, engineers or scientists and opinions are drawn about the overall sub-surface conditions, the nature and extent of contamination, the likely impact on any proposed development and appropriate remediation measures. Actual conditions may differ from those inferred, because no professional, no matter how qualified and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, however, steps can be taken to help minimise the impact. For this reason site owners should retain the services of their consultants throughout the development stages of the project in order to identify variances, conduct additional tests that may be necessary and to recommend solutions to problems encountered on site.

Soil and groundwater contamination is a field in which legislation and interpretation of legislation by government departments is changing rapidly. Whilst every attempt is made by Geotechnique Pty Ltd to be familiar with current policy, our interpretation of the investigation findings should not be taken to be that of the relevant authority. When approval from a statutory authority is required for a project, approval should be directly sought.

STABILITY OF SUB-SURFACE CONDITIONS
Sub-surface conditions can change by natural processes and site activities. As an environmental site assessment is based on conditions existing at the time of the investigation, project decisions should not be based on environmental site assessment data that may have been affected by time. The consultant should be requested to advise if additional tests are required.

ENVIRONMENTAL SITE ASSESSMENTS ARE PERFORMED FOR SPECIFIC PURPOSES AND CLIENTS
Environmental site assessments are prepared in response to a specific scope of work required to meet the specific needs of specific individuals e.g. an assessment prepared for a consulting civil engineer may not be adequate to a construction contractor or another consulting civil engineer.

An assessment should not be used by other persons for any purpose or by the client for a different purpose. No individual, other than the client, should apply an assessment, even for its intended purpose, without first conferring with the consultant. No person should apply an assessment for any purpose other than that originally contemplated, without first conferring with the consultant.

MISINTERPRETATION OF ENVIRONMENTAL SITE ASSESSMENTS
Costly problems can occur when design professionals develop plans based on misinterpretation of an environmental site assessment. In order to minimise problems, the environmental consultant should be retained to work with appropriate design professionals, to explain relevant findings and to review the adequacy of plans and specifications relative to contamination issues.

LOGS SHOULD NOT BE SEPARATED FROM THE REPORT
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists, based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these would not be redrawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however, contractors can still misinterpret the logs during bid preparation if separated from the text of the assessment. Should this occur, delays and disputes, or unanticipated costs may result.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete assessment should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of sub-surface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations, such as contractors.

READ RESPONSIBILITY CLAUSES CLOSELY
An environmental site assessment is based extensively on judgement and opinion; therefore, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. In order to aid in prevention of this problem, model clauses have been developed for use in written transmittals. These are definitive clauses, designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site assessment and you are encouraged to read them closely. Your consultant will be happy to give full and frank answers to any questions you may have.