

POINT LOAD STRENGTH INDEX

Australian Standard AS4133.4.1-1993 Method 4.1: Rock Strength Tests - Determination of Point Load Strength Index

Job No.	GEOTLCOV24207AB	
Sheet	10 of	11

[illegible]

NOTES

(1): N = Natural, D = Dry, S = Saturated

(2): $L > 0.5D$, $0.3 < D/W < 1.0$

$I_{s(50)}$ MPa and Strength Classification

< 0.1	Very Low	1 - 3	High
0.1 - 0.3	Low	3 - 10	Very High
0.3 - 1	Medium	> 10	Extremely High

POINT LOAD STRENGTH INDEX

Australian Standard AS4133.4.1-1993 Method 4.1: Rock Strength Tests - Determination of Point Load Strength Index

Job No.	GEOTLCOV24207AB
Sheet	11 of 11

CLIENT: Health Infrastructure NSW				Test Machine: GSA bench-mounted							Date of Calibration:								
PROJECT: GEOTLCOV24207AB				Testing Locality: Lane Cove West indoor storage area							Calibrated By:								
				Tested By: BM							Sampled Date: 22/2/2001								
											Test Date: 23/2/2011							Storage Location: Lane Cove West indoor storage area	
LOCATION: Blacktown Hospital				Checked:															
Borehole No. / Test Depth (m)		Rock Description	Moisture Condition ⁽¹⁾ (N, D or S)	Diametral test							Axial or Irregular lump							Comments / Strength Classification	
				Length L ⁽²⁾ (mm)	Diameter D (mm)	Load P (Gauge) (N)	I _s =(P/D ²) x 1000 (MPa)	Size Correction F=(D/50) ^{0.45}	I _{s(50)} (MPa)	Strength Class (Diametral)	Width W (core diameter) (mm)	Platen Separation D ⁽²⁾ (mm)	D _e ²	Load (Gauge) (kN)	I _s =(P/D _e ²) x 1000 (MPa)	Size Correction F=(D _e /50) ^{0.45}	I _{s(50)} (MPa)		Strength Class (Axial)
BH11	5.48	Shale	N	30.0	50.0	0.27	0.11	1.00	0.11	Low									BB(diametral)
BH11	5.64	Shale	N	32.0	50.0	0.56	0.22	1.00	0.22	Low	50.0	32.0	2037	0.94	0.46	0.95	0.44	Medium	
BH11	6.10	Sandstone	N	27.0	50.0	0.74	0.30	1.00	0.30	Low	50.0	27.0	1719	1.88	1.09	0.92	1.01	High	
BH11	7.49	Shale	N	29.0	50.0	0.89	0.36	1.00	0.36	Medium	50.0	29.0	1846	0.75	0.41	0.93	0.38	Medium	
BH11	7.56	Shale	N	30.0	50.0	0.67	0.27	1.00	0.3	Low	50.0	30.0	1910	1.32	0.69	0.94	0.7	Medium	
BH11	7.80	Shale	N	34.0	50.0	0.74	0.30	1.00	0.3	Low	50.0	34.0	2165	1.13	0.52	0.97	0.5	Medium	
BH11	8.14	Shale	N	29.0	50.0	1.1	0.44	1.00	0.4	Medium	50.0	29.0	1846	1.57	0.85	0.93	0.8	Medium	
BH11	8.46	Shale	N	35.0	50.0	0.89	0.36	1.00	0.4	Medium	50.0	35.0	2228	1.71	0.77	0.97	0.7	Medium	
BH11	8.89	Shale	N	30.0	50.0	0.49	0.20	1.00	0.2	Low	50.0	30.0	1910	0.53	0.28	0.94	0.3	Low	BB
BH11	9.15	Shale	N	30.0	50.0	0.50	0.20	1.00	0.2	Low	50.0	30.0	1910	0.61	0.32	0.94	0.3	Medium	
BH11	9.55	Shale	N	30.0	50.0	1.02	0.41	1.00	0.4	Medium	50.0	30.0	1910	1.07	0.56	0.94	0.5	Medium	
BH11	9.73	Shale	N	27.0	50.0	1.00	0.40	1.00	0.4	Medium	50.0	27.0	1719	0.66	0.38	0.92	0.4	Medium	

NOTES

(1): N = Natural, D = Dry, S = Saturated
 (2): $L > 0.5D$, $0.3 < DW < 1.0$

 $I_{s(50)}$ MPa and Strength Classification

< 0.1	Very Low	1 - 3	High
0.1 - 0.3	Low	3 - 10	Very High
0.3 - 1	Medium	> 10	Extremely High

Material Test Report

Report No: LCOV11S-00168-1

Issue No: 1

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal:

Project No.: INFOLCOV00822AA

Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL

Lot No.: **TRN:**



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Approved Signatory: Garry Collins
(Specialised Testing Manager)

NATA Accredited Laboratory Number: 431
Date of Issue: 1/03/2011

Sample Details

Sample ID: LCOV11S-00168
Field Sample: BH1
Date Sampled: 16/02/2011
Source: Ex Job Site
Material: Subgrade
Specification: No Specification
Sampling Method: Submitted by client
Project Location: Blacktown Hospital
Sample Location: BH1 (2.55 to 2.90 m)

Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	20.1	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	11.5	
Mould Length (mm)		250.5	
Crumbling		No	
Curling		Yes	
Liquid Limit (%)	AS 1289.3.1.2	51	
Method		One Point	
Plastic Limit (%)	AS 1289.3.2.1	18	
Plasticity Index (%)	AS 1289.3.3.1	33	
Date Tested		25/02/2011	

Comments

N/A

Material Test Report

Report No: LCOV11S-00169-1

Issue No: 1

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal:

Project No.: INFOLCOV00822AA

Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL

Lot No.: TRN:



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Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 1/03/2011

Sample Details

Sample ID: LCOV11S-00169

Field Sample: BH2

Date Sampled: 16/02/2011

Source: Ex Job Site

Material: Subgrade

Specification: No Specification

Sampling Method: Submitted by client

Project Location: Blacktown Hospital

Sample Location: BH2 (2.00 to 2.50 m)

Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	16.9	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	12.5	
Mould Length (mm)		254.3	
Crumbling		No	
Curling		Yes	
Liquid Limit (%)	AS 1289.3.1.2	50	
Method		One Point	
Plastic Limit (%)	AS 1289.3.2.1	20	
Plasticity Index (%)	AS 1289.3.3.1	30	
Date Tested		25/02/2011	

Comments

N/A

Material Test Report

Report No: LCOV11S-00317-1

Issue No: 2

This report replaces all previous issues of report no 'LCOV11S-00317-1'.

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal: Health Infrastructure, NSW

Project No.: INFOLCOV00822AA

Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL

Lot No.: TRN:



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Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 23/03/2011

Sample Details

Sample ID: LCOV11S-00317

Field Sample: BH4: 2.0 - 2.45m

Date Sampled: 20/02/2011

Source: Ex Job Site

Material: Subgrade

Specification: No Specification

Sampling Method: Submitted by client

Project Location: BLACKTOWN HOSPITAL

Sample Location: BH4 (2.00 to 2.45 m)

Test Results

Description	Method	Result	Limits
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	10.5	
Mould Length (mm)		125	
Crumbling		No	
Curling		No	
Liquid Limit (%)	AS 1289.3.1.2	46	
Method		One Point	
Plastic Limit (%)	AS 1289.3.2.1	16	
Plasticity Index (%)	AS 1289.3.3.1	30	
Date Tested		21/03/2011	
Moisture Content (%)	AS 1289.2.1.1	13.0	

Comments

N/A

Material Test Report

Report No: LCOV11S-00318-1

Issue No: 2

This report replaces all previous issues of report no 'LCOV11S-00318-1'.

Client: Coffey Geotechnics Pty Ltd
 P.O. Box 125
 North Ryde NSW 1670

Principal: Health Infrastructure, NSW

Project No.: INFOLCOV00822AA

Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL

Lot No.: TRN:



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Approved Signatory: Garry Collins
 (Specialised Testing Manager)
 NATA Accredited Laboratory Number: 431
 Date of Issue: 23/03/2011

Sample Details

Sample ID: LCOV11S-00318

Field Sample: BH9: 2.0 - 2.35m

Date Sampled: 20/02/2011

Source: Ex Job Site

Material: Subgrade

Specification: No Specification

Sampling Method: Submitted by client

Project Location: BLACKTOWN HOSPITAL

Sample Location: BH9 (2.00 to 2.40 m)

Test Results

Description	Method	Result	Limits
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	N/A	
Mould Length (mm)		0	
Crumbling		No	
Curling		No	
Liquid Limit (%)	AS 1289.3.1.1	47	
Method		Four Point	
Plastic Limit (%)	AS 1289.3.2.1	16	
Plasticity Index (%)	AS 1289.3.3.1	31	
Date Tested		17/03/2011	
Moisture Content (%)	AS 1289.2.1.1	19.5	

Comments

N/A

Material Test Report

Report No: LCOV11S-00319-1

Issue No: 2

This report replaces all previous issues of report no 'LCOV11S-00319-1'.

Client: Coffey Geotechnics Pty Ltd
 P.O. Box 125
 North Ryde NSW 1670

Principal: Health Infrastructure, NSW

Project No.: INFOLCOV00822AA

Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL

Lot No.: TRN:



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Approved Signatory: Garry Collins

(Specialised Testing Manager)

NATA Accredited Laboratory Number: 431

Date of Issue: 23/03/2011

Sample Details

Sample ID: LCOV11S-00319

Field Sample: BH9: 3.5 - 3.95m

Date Sampled: 20/02/2011

Source: Ex Job Site

Material: Subgrade

Specification: No Specification

Sampling Method: Submitted by client

Project Location: BLACKTOWN HOSPITAL

Sample Location: BH9 (2.50 to 3.95 m)

Test Results

Description	Method	Result	Limits
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	8.5	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Liquid Limit (%)	AS 1289.3.1.2	45	
Method		One Point	
Plastic Limit (%)	AS 1289.3.2.1	19	
Plasticity Index (%)	AS 1289.3.3.1	26	
Date Tested		18/03/2011	
Moisture Content (%)	AS 1289.2.1.1	13.6	

Comments

N/A

Material Test Report

Report No: LCOV11S-00320-1

Issue No: 2

This report replaces all previous issues of report no 'LCOV11S-00320-1'.

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal: Health Infrastructure, NSW

Project No.: INFOLCOV00822AA

Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL

Lot No.: TRN:



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Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 23/03/2011

Sample Details

Sample ID: LCOV11S-00320

Field Sample: BH10: 3.0 - 3.95m

Date Sampled: 20/02/2011

Source: Ex Job Site

Material: Subgrade

Specification: No Specification

Sampling Method: Submitted by client

Project Location: BLACKTOWN HOSPITAL

Sample Location: BH10 (3.00 to 3.95 m)

Test Results

Description	Method	Result	Limits
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	N/A	
Mould Length (mm)		0	
Crumbling		No	
Curling		No	
Liquid Limit (%)	AS 1289.3.1.2	59	
Method		One Point	
Plastic Limit (%)	AS 1289.3.2.1	18	
Plasticity Index (%)	AS 1289.3.3.1	41	
Date Tested		18/03/2011	
Moisture Content (%)	AS 1289.2.1.1	18.4	

Comments

N/A

Aggregate/Soil Test Report

Report No.: IOLT 4460

Issue No.: 1

This report replaces all previous issues of report no. 'MAT:(type number here)'.

Client: COFFEY GEOTECHNICS PTY LTD.
(GEOTLCOV24207AB)

Principal: HEALTH INFRASTRUCTURE NSW

Job No.: INFOLCOV00822AA

Project: GEOTECHNICAL AND CONTAMINATION ASSESSMENT

Location: BLACKTOWN HOSPITAL, NSW



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Approved Signatory:
Associate/Specialised Soils Leader
NATA Accredited Laboratory Number: 431
Date of Issue: 1/03/2011

Sample Details

Sample ID: LCOV11S-00168

Field Sample: BH1 (2.55 to 2.90 m)

Date Sampled: 16/02/2011

Source: Ex Job Site

Material: (CH) SILTY CLAY - high plasticity, light grey, trace of fine to coarse sand.

Other Sample Details:

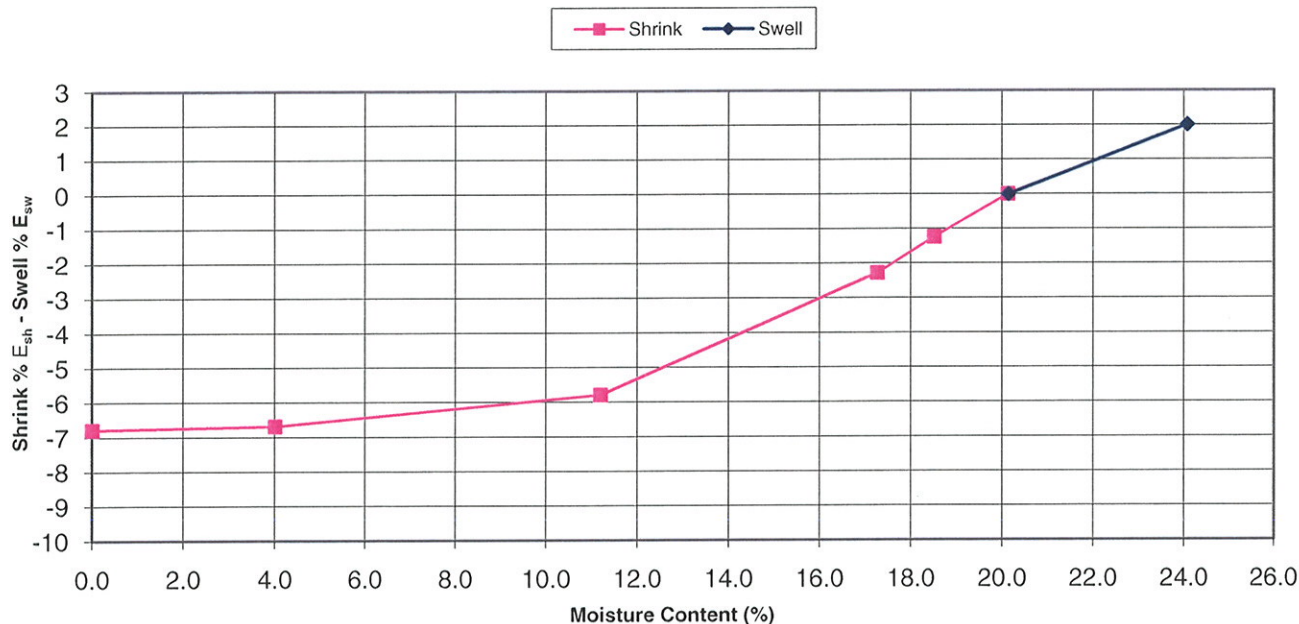
Specification: Not Supplied

Sampling Method: Supplied by Client

Location: BLACKTOWN HOSPITAL, NSW

Test Results

Swell Test						Shrink Test			
Swell on Saturation %	Moisture Content %		Estimated unconfined Compressive strength			Shrink on drying %	Est. inert material present %	Extent of crumbling during shrinkage	Extent of cracking during shrinkage
	before test	after test	before test	kPa	after test				
2.0	20.1	24.1	-		300	6.8	< 5	Very Slight	Very Slight



Test Method and remarks:

Shrink/Swell AS1289.7.1.1
Estimated unconfined compressive strength obtained using pocket penetrometer.

Shrink Swell Index:

$$I_{ss} = 4.3$$

Report No: MDD:LCOV11S-00238

Issue No: 1

Maximum Dry Density Report

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal:
Project No.: INFOLCOV00822AA
Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL
Lot No.: TRN:



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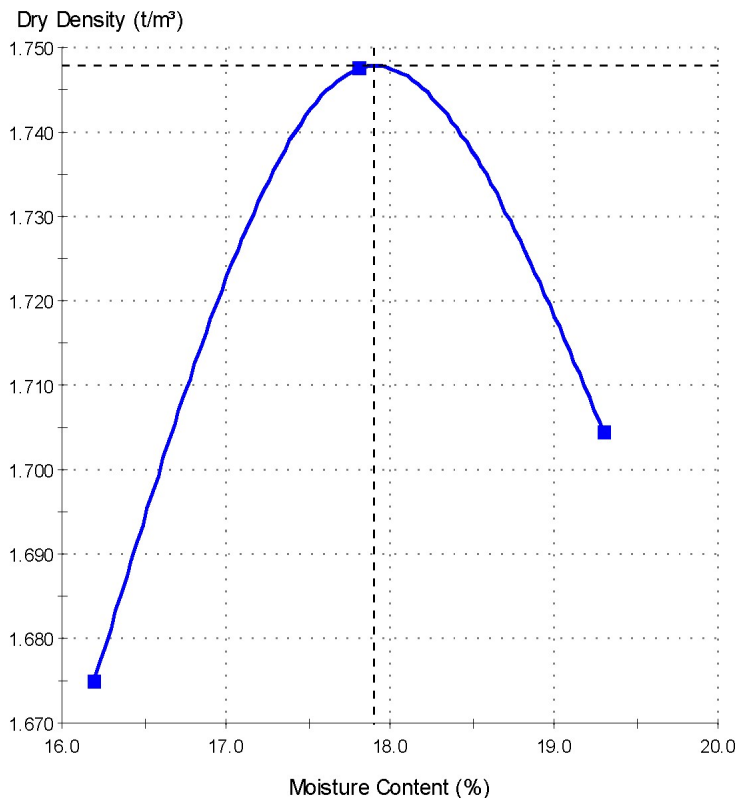
Garry Collins

Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 8/03/2011

Sample Details

Sample ID: LCOV11S-00238	Sampling Method: Submitted by client
Date Sampled: 18/02/2011	Material: Subgrade
Date Submitted: 23/02/2011	Source: Ex Job Site
Date Tested: 3/03/2011	Specification: No Specification
Project Location: Blacktown Road, Blacktown NSW	
Sample Location: TPB1 (0.50 to 0.70 m)	

Dry Density - Moisture Content Relationship



Test Results

AS 1289.5.1.1

Standard MDD (t/m³): 1.75

Standard OMC (%): 18.0

Retained Sieve 19mm (%): 4

Comments

Report No: CBR:LCOV11S-00238

Issue No: 1

California Bearing Ratio Test Report

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal:
Project No.: INFOLCOV00822AA
Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL
Lot No.: TRN:



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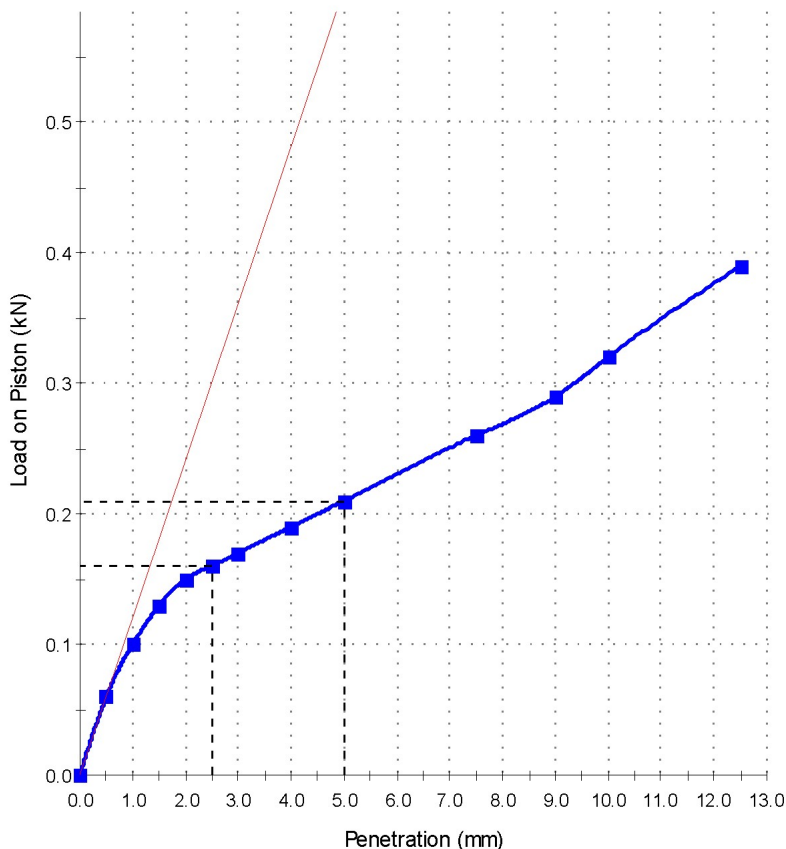


Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 8/03/2011

Sample Details

Sample ID:	LCOV11S-00238	Sampling Method:	Submitted by client
Date Sampled:	18/02/2011	Material:	Subgrade
Date Submitted:	23/02/2011	Source:	Ex Job Site
Date Tested:	3/03/2011	Specification:	No Specification
Project Location:	Blacktown Road, Blacktown NSW		
Sample Location:	TPB1 (0.50 to 0.70 m)		

Load vs Penetration



Test Results

AS 1289.6.1.1

CBR At 2.5mm (%):	1.0
Maximum Dry Density (t/m³):	1.75
Optimum Moisture Content (%):	17.9
Dry Density before Soaking (t/m³):	1.74
Density Ratio before Soaking (%):	100
Moisture Content before Soaking (%):	18.2
Moisture Ratio before Soaking (%):	102
Dry Density after Soaking (t/m³):	1.68
Density Ratio after Soaking (%):	96
Swell (%):	4.0
Moisture Content of Top 30mm (%):	30.9
Moisture Content of Remaining Depth (%):	20.6
Compactive Effort:	Standard
Surcharge Mass (kg):	4.50
Period of Soaking (Days):	4
Oversize Material:	Excluded
Oversize Material (%):	4.4

Comments

Report No: MDD:LCOV11S-00240

Issue No: 1

Maximum Dry Density Report

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal:
Project No.: INFOLCOV00822AA
Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL
Lot No.: TRN:



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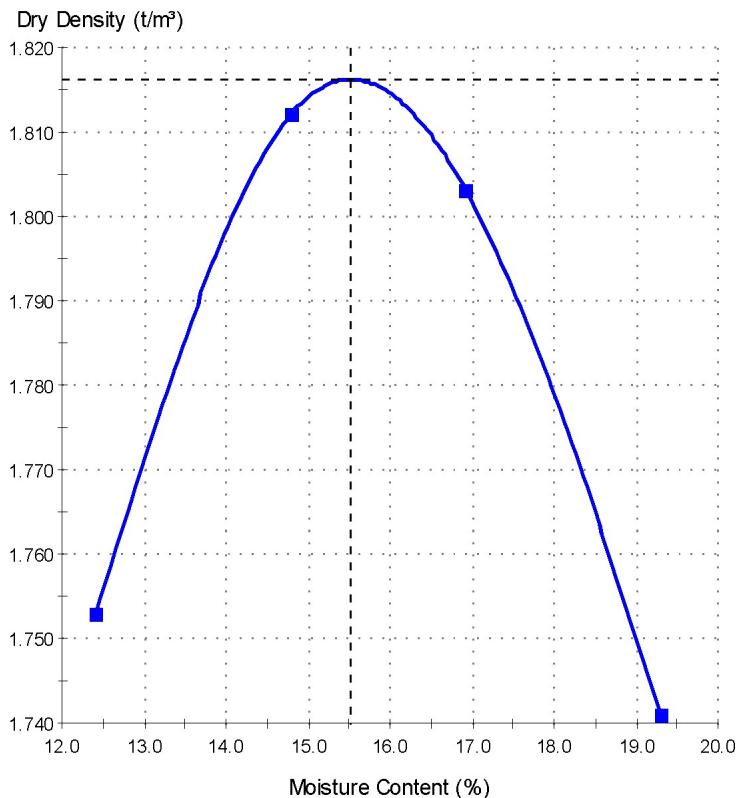
Garry Collins

Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 8/03/2011

Sample Details

Sample ID:	LCOV11S-00240	Sampling Method:	Submitted by client
Date Sampled:	18/02/2011	Material:	Subgrade
Date Submitted:	23/02/2011	Source:	Ex Job Site
Date Tested:	8/03/2011	Specification:	No Specification
Project Location:	Blacktown Road, Blacktown NSW		
Sample Location:	TPB2 (1.50 to 1.70 m)		

Dry Density - Moisture Content Relationship



Test Results

AS 1289.5.1.1
Standard MDD (t/m³): 1.82
Standard OMC (%): 15.5
Retained Sieve 19mm (%): 2

Comments

Report No: CBR:LCOV11S-00240

Issue No: 1

California Bearing Ratio Test Report

Client: Coffey Geotechnics Pty Ltd
P.O. Box 125
North Ryde NSW 1670

Principal:
Project No.: INFOLCOV00822AA
Project Name: GEOTLCOV24207AB - BLACKTOWN HOSPITAL
Lot No.: TRN:



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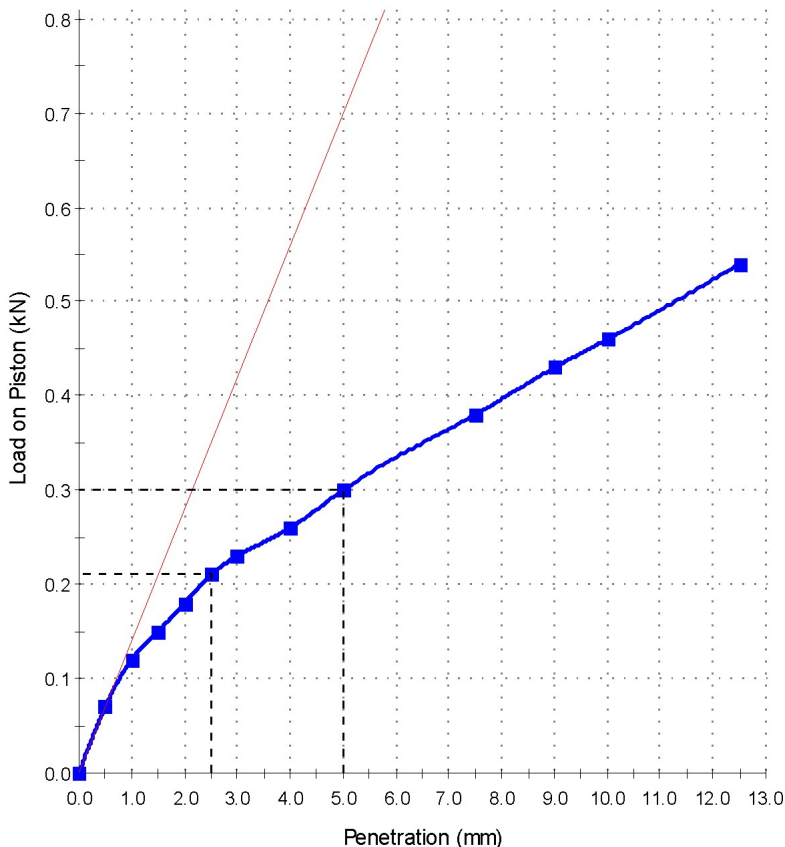
Garry Collins

Approved Signatory: Garry Collins
(Specialised Testing Manager)
NATA Accredited Laboratory Number: 431
Date of Issue: 8/03/2011

Sample Details

Sample ID:	LCOV11S-00240	Sampling Method:	Submitted by client
Date Sampled:	18/02/2011	Material:	Subgrade
Date Submitted:	23/02/2011	Source:	Ex Job Site
Date Tested:	3/03/2011	Specification:	No Specification
Project Location:	Blacktown Road, Blacktown NSW		
Sample Location:	TPB2 (1.50 to 1.70 m)		

Load vs Penetration



Test Results

AS 1289.6.1.1

CBR At 2.5mm (%):	1.5
Maximum Dry Density (t/m ³):	1.82
Optimum Moisture Content (%):	15.5
Dry Density before Soaking (t/m ³):	1.83
Density Ratio before Soaking (%):	100
Moisture Content before Soaking (%):	15.6
Moisture Ratio before Soaking (%):	101
Dry Density after Soaking (t/m ³):	1.74
Density Ratio after Soaking (%):	96
Swell (%):	5.0
Moisture Content of Top 30mm (%):	25.5
Moisture Content of Remaining Depth (%):	19.4
Compactive Effort:	Standard
Surcharge Mass (kg):	4.50
Period of Soaking (Days):	4
Oversize Material:	Excluded
Oversize Material (%):	2.5

Comments



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES1103729	Page	: 1 of 3
Client	: COFFEY GEOTECHNICS	Laboratory	: Environmental Division Sydney
Contact	: SARA SOMASUNDARAM	Contact	: Charlie Pierce
Address	: 8/12 MARS ROAD LANE COVE WEST NSW, AUSTRALIA 2066	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: sara_somasundaram@coffey.com	E-mail	: sydney.enviro.services@alsglobal.com
Telephone	: +61 02 9911 1000	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9911 1001	Facsimile	: +61-2-8784 8500
Project	: GEOTLCOV 24207 AB	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: 24207AB	Date Samples Received	: 22-FEB-2011
C-O-C number	: 22092	Issue Date	: 01-MAR-2011
Sampler	: LG		
Site	: ----		
Quote number	: EN/007/10	No. of samples received	: 3
		No. of samples analysed	: 3

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



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ankit Joshi	Inorganic Chemist	Inorganics
Hoa Nguyen	Inorganic Chemist	Inorganics
Luke Witham	Senior Inorganic Chemist	Inorganics
Sarah Millington	Senior Inorganic Chemist	Inorganics

Environmental Division Sydney
Part of the **ALS Laboratory Group**

277-289 Woodpark Road Smithfield NSW Australia 2164
Tel. +61-2-8784 8555 Fax. +61-2-8784 8500 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 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 insufficient sample for analysis.

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

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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



Analytical Results

Sub-Matrix: SOIL

Client sample ID

Client sampling date / time

				BH1(2.00 to 2.45m)	BH3(5.00 to 5.45m)	BH5(2.00 to 2.45m)		
				[22-FEB-2011]	[22-FEB-2011]	[22-FEB-2011]		
Compound	CAS Number	LOR	Unit	ES1103729-001	ES1103729-002	ES1103729-003		
EA002 : pH (Soils)								
pH Value	----	0.1	pH Unit	10.1	9.7	11.0	----	----
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1.0	%	19.0	15.7	9.1	----	----
ED040S : Soluble Sulfate by ICPAES								
Sulfate as SO4 2-	14808-79-8	10	mg/kg	90	380	250	----	----
ED045G: Chloride Discrete analyser								
Chloride	16887-00-6	10	mg/kg	430	940	30	----	----



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES1105035	Page	: 1 of 4
Client	: COFFEY GEOTECHNICS	Laboratory	: Environmental Division Sydney
Contact	: SARA SOMASUNDARAM	Contact	: Charlie Pierce
Address	: 8/12 MARS ROAD LANE COVE WEST NSW, AUSTRALIA 2066	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: sara_somasundaram@coffey.com	E-mail	: sydney.enviro.services@alsglobal.com
Telephone	: +61 02 9911 1000	Telephone	: +61-2-8784 8555
Facsimile	: +61 02 9911 1001	Facsimile	: +61-2-8784 8500
Project	: 24207AA GEOTLCOV	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----	Date Samples Received	: 09-MAR-2011
C-O-C number	: 22094,22093	Issue Date	: 15-MAR-2011
Sampler	: LG	No. of samples received	: 7
Site	: ----	No. of samples analysed	: 7
Quote number	: EN/007/10		

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



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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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics
Luke Witham	Senior Inorganic Chemist	Sydney Inorganics
		Sydney Inorganics

Environmental Division Sydney
Part of the **ALS Laboratory Group**

277-289 Woodpark Road Smithfield NSW Australia 2164
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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 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 insufficient sample for analysis.

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

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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



Analytical Results

Sub-Matrix: SOIL

Client sample ID

Client sampling date / time

				BH6(2.00 TO 2.35M)	BH7	BH9(3.5 TO 3.95M)	BH10(2.0 TO 2.5M)	BH11(0.5 TO 1.0M)
				20-FEB-2011 15:00	20-FEB-2011 15:00	20-FEB-2011 15:00	20-FEB-2011 15:00	20-FEB-2011 15:00
Compound	CAS Number	LOR	Unit	ES1105035-001	ES1105035-002	ES1105035-003	ES1105035-004	ES1105035-005
EA002 : pH (Soils)								
pH Value	----	0.1	pH Unit	9.0	6.6	6.4	7.0	6.9
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1.0	%	8.3	9.5	10.8	9.4	13.7
ED040S : Soluble Sulfate by ICPAES								
Sulfate as SO4 2-	14808-79-8	10	mg/kg	270	470	250	190	580
ED045G: Chloride Discrete analyser								
Chloride	16887-00-6	10	mg/kg	30	400	260	180	40

Appendix C

Environmental Laboratory Testing Results

ANALYTICAL REPORT

1 March 2011

Coffey Geotechnics Pty Ltd

8/12 Mars Road
LANE COVE WEST
NSW 2066

Attention: Edward Wu

Your Reference: GL24207AB

Our Reference: SE85671

Samples: 38 Soils, 5 Waters

Received: 22/2/11

Preliminary Report Sent: Not Issued

These samples were analysed in accordance with your written instructions.

For and on Behalf of:

SGS ENVIRONMENTAL SERVICES

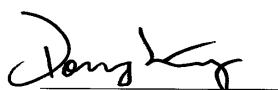
Sample Receipt: Angela Mamalicos

AU.SampleReceipt.Sydney@sgs.com

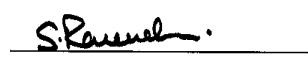
Production Manager: Huong Crawford

Huong.Crawford@sgs.com

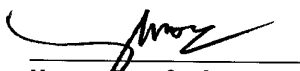
Results Approved and/or Authorised by:



Dong Liang
Quality Manager


Ravee Sivasubramaniam
Asbestos Signatory

Ly Kim Ha
Organics Signatory
Organics Signatory



Huong Crawford
Metals Signatory



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BTEX in Soil						
Our Reference:	UNITS	SE85671-1	SE85671-2	SE85671-4	SE85671-6	SE85671-1 2
Your Reference	-----	BH1 (0.1-0.5)	BH1 (0.5-0.95)	BH2 (0.1-0.3)	BH2 (0.5-0.7)	BH3 (0.1-0.3)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		15/02/2011	15/02/2011	15/02/2011	15/02/2011	16/02/2011
Date Extracted (BTEX)		24/02/2011	24/02/2011	24/02/2011	24/02/2011	24/02/2011
Date Analysed (BTEX)		26/02/2011	26/02/2011	26/02/2011	26/02/2011	26/02/2011
Benzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3
BTEX Surrogate (%)	%	126	119	61	68	105

BTEX in Soil						
Our Reference:	UNITS	SE85671-1 4	SE85671-1 8	SE85671-2 0	SE85671-2 2	SE85671-2 6
Your Reference	-----	BH3 (0.5-0.75)	BH5 (0.3-0.4)	BH5 (1.3-1.4)	BH4 (0.1-0.3)	BH6 (0.1-0.3)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		16/02/2011	17/02/2011	17/02/2011	18/02/2011	17/02/2011
Date Extracted (BTEX)		24/02/2011	24/02/2011	24/02/2011	24/02/2011	24/02/2011
Date Analysed (BTEX)		26/02/2011	26/02/2011	26/02/2011	26/02/2011	26/02/2011
Benzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	<0.3	<0.3	<0.3	<0.3	<0.3
BTEX Surrogate (%)	%	95	92	102	91	100

BTEX in Soil					
Our Reference:	UNITS	SE85671-2	SE85671-3	SE85671-3	SE85671-4
		7	1	5	1
Your Reference	-----	BH6	TPB1	TPB2	DUP1
		(1.1-1.2)	(0.2-0.4)	(0.1-0.2)	
Sample Matrix	-----	Soil	Soil	Soil	Soil
Date Sampled		17/02/2011	18/02/2011	18/02/2011	15/02/2011
Date Extracted (BTEX)		24/02/2011	24/02/2011	24/02/2011	24/02/2011
Date Analysed (BTEX)		26/02/2011	26/02/2011	26/02/2011	26/02/2011
Benzene	mg/kg	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	<0.3	<0.3	<0.3	<0.3
BTEX Surrogate (%)	%	103	110	104	93



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TRH in soil with C6-C9 by P/T Our Reference:	UNITS	SE85671-1	SE85671-2	SE85671-4	SE85671-6	SE85671-1 2
Your Reference	-----	BH1 (0.1-0.5)	BH1 (0.5-0.95)	BH2 (0.1-0.3)	BH2 (0.5-0.7)	BH3 (0.1-0.3)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		15/02/2011	15/02/2011	15/02/2011	15/02/2011	16/02/2011
Date Extracted (TRH C6-C9 PT)		24/02/2011	24/02/2011	24/02/2011	24/02/2011	24/02/2011
Date Analysed (TRH C6-C9 PT)		26/02/2011	26/02/2011	26/02/2011	26/02/2011	26/02/2011
TRH C6 - C9 P&T	mg/kg	<20	<20	<20	<20	<20
Date Extracted (TRH C10-C36)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed (TRH C10-C36)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
TRH C10 - C14	mg/kg	<20	<20	<20	<20	<20
TRH C15 - C28	mg/kg	<50	<50	<50	<50	<50
TRH C29 - C36	mg/kg	<50	<50	<50	<50	<50

TRH in soil with C6-C9 by P/T Our Reference:	UNITS	SE85671-1 4	SE85671-1 8	SE85671-2 0	SE85671-2 2	SE85671-2 6
Your Reference	-----	BH3 (0.5-0.75)	BH5 (0.3-0.4)	BH5 (1.3-1.4)	BH4 (0.1-0.3)	BH6 (0.1-0.3)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		16/02/2011	17/02/2011	17/02/2011	18/02/2011	17/02/2011
Date Extracted (TRH C6-C9 PT)		24/02/2011	24/02/2011	24/02/2011	24/02/2011	24/02/2011
Date Analysed (TRH C6-C9 PT)		26/02/2011	26/02/2011	26/02/2011	26/02/2011	26/02/2011
TRH C6 - C9 P&T	mg/kg	<20	<20	<20	<20	<20
Date Extracted (TRH C10-C36)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed (TRH C10-C36)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
TRH C10 - C14	mg/kg	<20	<20	<20	<20	<20
TRH C15 - C28	mg/kg	<50	<50	150	52	<50
TRH C29 - C36	mg/kg	<50	<50	<50	<50	<50



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TRH in soil with C6-C9 by P/T Our Reference:	UNITS	SE85671-2 7	SE85671-3 1	SE85671-3 5	SE85671-4 1
Your Reference	-----	BH6 (1.1-1.2)	TPB1 (0.2-0.4)	TPB2 (0.1-0.2)	DUP1
Sample Matrix	-----	Soil	Soil	Soil	Soil
Date Sampled		17/02/2011	18/02/2011	18/02/2011	15/02/2011
Date Extracted (TRH C6-C9 PT)		24/02/2011	24/02/2011	24/02/2011	24/02/2011
Date Analysed (TRH C6-C9 PT)		26/02/2011	26/02/2011	26/02/2011	26/02/2011
TRH C ₆ - C ₉ P&T	mg/kg	<20	<20	<20	<20
Date Extracted (TRH C10-C36)		25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed (TRH C10-C36)		25/02/2011	25/02/2011	25/02/2011	25/02/2011
TRH C ₁₀ - C ₁₄	mg/kg	<20	<20	<20	<20
TRH C ₁₅ - C ₂₈	mg/kg	<50	<50	<50	<50
TRH C ₂₉ - C ₃₆	mg/kg	<50	<50	<50	<50



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PAHs in Soil Our Reference:	UNITS	SE85671-4	SE85671-1 4	SE85671-1 8	SE85671-2 7	SE85671-3 5
Your Reference	-----	BH2 (0.1-0.3)	BH3 (0.5-0.75)	BH5 (0.3-0.4)	BH6 (1.1-1.2)	TPB2 (0.1-0.2)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		15/02/2011	16/02/2011	17/02/2011	17/02/2011	18/02/2011
Date Extracted		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Naphthalene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Acenaphthene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Fluorene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Phenanthrene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Pyrene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[a]anthracene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Chrysene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[b]fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo[k]fluoranthene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[a]pyrene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Indeno[123-cd]pyrene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Dibenzo[ah]anthracene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[ghi]perylene	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
Total PAHs (sum)	mg/kg	<2	<2	<2	<2	<2
Nitrobenzene-d5	%	91	74	90	90	96
2-Fluorobiphenyl	%	99	70	98	98	103
p -Terphenyl-d14	%	77	67	73	73	74



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PAHs in Soil Our Reference:	UNITS	SE85671-4 1
Your Reference	-----	DUP1
Sample Matrix	-----	Soil
Date Sampled		15/02/2011
Date Extracted		25/02/2011
Date Analysed		25/02/2011
Naphthalene	mg/kg	<0.10
Acenaphthylene	mg/kg	<0.10
Acenaphthene	mg/kg	<0.10
Fluorene	mg/kg	<0.10
Phenanthrene	mg/kg	<0.10
Anthracene	mg/kg	<0.10
Fluoranthene	mg/kg	<0.10
Pyrene	mg/kg	0.11
Benzo[a]anthracene	mg/kg	<0.10
Chrysene	mg/kg	<0.10
Benzo[b]fluoranthene	mg/kg	<0.1
Benzo[k]fluoranthene	mg/kg	<0.10
Benzo[a]pyrene	mg/kg	<0.10
Indeno[123-cd]pyrene	mg/kg	<0.10
Dibenzo[ah]anthracene	mg/kg	<0.10
Benzo[ghi]perylene	mg/kg	<0.10
Total PAHs (sum)	mg/kg	<1.61
Nitrobenzene-d5	%	90
2-Fluorobiphenyl	%	94
p -Terphenyl-d14	%	72



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OC Pesticides in Soil Our Reference:	UNITS	SE85671-4	SE85671-1 4	SE85671-1 8	SE85671-2 7	SE85671-3 5
Your Reference	-----	BH2 (0.1-0.3)	BH3 (0.5-0.75)	BH5 (0.3-0.4)	BH6 (1.1-1.2)	TPB2 (0.1-0.2)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		15/02/2011	16/02/2011	17/02/2011	17/02/2011	18/02/2011
Date Extracted		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed		27/02/2011	27/02/2011	27/02/2011	27/02/2011	27/02/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>alpha</i> -BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC (Lindane)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>beta</i> -BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>delta</i> -BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>o,p</i> -DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>alpha</i> -Endosulfan	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>trans</i> -Chlordane (<i>gamma</i>)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>cis</i> -Chlordane (<i>alpha</i>)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>trans</i> -Nonachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>p,p</i> -DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>o,p</i> -DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>o,p</i> -DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>beta</i> -Endosulfan	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>p,p</i> -DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
<i>p,p</i> -DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
2,4,5,6-Tetrachloro-m-xylene (<i>Surrogate</i>)	%	123	124	123	127	127

OC Pesticides in Soil Our Reference:	UNITS	SE85671-4 1
Your Reference	-----	DUP1
Sample Matrix	-----	Soil
Date Sampled		15/02/2011
Date Extracted		25/02/2011
Date Analysed		27/02/2011
HCB	mg/kg	<0.1
<i>alpha</i> -BHC	mg/kg	<0.1
gamma-BHC (Lindane)	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
Aldrin	mg/kg	<0.1
<i>beta</i> -BHC	mg/kg	<0.1
<i>delta</i> -BHC	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
<i>o,p</i> -DDE	mg/kg	<0.1
<i>alpha</i> -Endosulfan	mg/kg	<0.1
<i>trans</i> -Chlordane (<i>gamma</i>)	mg/kg	<0.1
<i>cis</i> -Chlordane (<i>alpha</i>)	mg/kg	<0.1
<i>trans</i> -Nonachlor	mg/kg	<0.1
<i>p,p</i> -DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
<i>o,p</i> -DDD	mg/kg	<0.1
<i>o,p</i> -DDT	mg/kg	<0.1
<i>beta</i> -Endosulfan	mg/kg	<0.1
<i>p,p</i> -DDD	mg/kg	<0.1
<i>p,p</i> -DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Endrin Ketone	mg/kg	<0.1
2,4,5,6-Tetrachloro-m-xylene (<i>Surrogate</i>)	%	122



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PCBs in Soil Our Reference:	UNITS	SE85671-4	SE85671-1 4	SE85671-1 8	SE85671-2 7	SE85671-3 5
Your Reference	-----	BH2 (0.1-0.3)	BH3 (0.5-0.75)	BH5 (0.3-0.4)	BH6 (1.1-1.2)	TPB2 (0.1-0.2)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		15/02/2011	16/02/2011	17/02/2011	17/02/2011	18/02/2011
Date Extracted		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed		27/02/2011	27/02/2011	27/02/2011	27/02/2011	27/02/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1262	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1268	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive PCB	mg/kg	<0.90	<0.90	<0.90	<0.90	<0.90
PCB_Surrogate 1	%	123	124	123	127	127

PCBs in Soil Our Reference:	UNITS	SE85671-4 1
Your Reference	-----	DUP1
Sample Matrix	-----	Soil
Date Sampled		15/02/2011
Date Extracted		25/02/2011
Date Analysed		27/02/2011
Arochlor 1016	mg/kg	<0.1
Arochlor 1221	mg/kg	<0.1
Arochlor 1232	mg/kg	<0.1
Arochlor 1242	mg/kg	<0.1
Arochlor 1248	mg/kg	<0.1
Arochlor 1254	mg/kg	<0.1
Arochlor 1260	mg/kg	<0.1
Arochlor 1262	mg/kg	<0.1
Arochlor 1268	mg/kg	<0.1
Total Positive PCB	mg/kg	<0.90
PCB_Surrogate 1	%	122

Metals in Soil by ICP-OES Our Reference:	UNITS	SE85671-1	SE85671-2	SE85671-4	SE85671-6	SE85671-1 2
Your Reference	-----	BH1 (0.1-0.5)	BH1 (0.5-0.95)	BH2 (0.1-0.3)	BH2 (0.5-0.7)	BH3 (0.1-0.3)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		15/02/2011	15/02/2011	15/02/2011	15/02/2011	16/02/2011
Date Extracted (Metals)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed (Metals)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Arsenic	mg/kg	<3	4	<3	3	<3
Cadmium	mg/kg	0.3	<0.3	<0.3	<0.3	0.3
Chromium	mg/kg	13	12	9.9	11	14
Copper	mg/kg	55	21	57	46	70
Lead	mg/kg	4	10	5	9.4	4
Nickel	mg/kg	89	12	69	40	100
Zinc	mg/kg	44	40	41	48	53

Metals in Soil by ICP-OES Our Reference:	UNITS	SE85671-1 4	SE85671-1 8	SE85671-2 0	SE85671-2 2	SE85671-2 6
Your Reference	-----	BH3 (0.5-0.75)	BH5 (0.3-0.4)	BH5 (1.3-1.4)	BH4 (0.1-0.3)	BH6 (0.1-0.3)
Sample Matrix	-----	Soil	Soil	Soil	Soil	Soil
Date Sampled		16/02/2011	17/02/2011	17/02/2011	18/02/2011	17/02/2011
Date Extracted (Metals)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Date Analysed (Metals)		25/02/2011	25/02/2011	25/02/2011	25/02/2011	25/02/2011
Arsenic	mg/kg	12	<3	<3	<3	4
Cadmium	mg/kg	0.3	0.3	<0.3	<0.3	<0.3
Chromium	mg/kg	11	11	4.0	16	15
Copper	mg/kg	25	69	8.4	36	41
Lead	mg/kg	14	5	3	21	9.2
Nickel	mg/kg	18	67	6.5	15	49
Zinc	mg/kg	41	52	18	97	48



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