Appendix D Historical Aerial Photographs

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1943

FIGURE 1943

File Name: 53033_1943
Reference: Six Maps Imagery - 1943.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1951

FIGURE 1951

File Name: 53033_1951
Reference: Spatial Services NSW - 1951.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1961

FIGURE 1961

File Name: 53033_1961
Reference: Spatial Services NSW - 1961.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1970

FIGURE 1970

File Name: 53033_1970
Reference: Spatial Services NSW - 1970.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1980

FIGURE 1980

File Name: 53033_1980
Reference: Spatial Services NSW - 1980.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1991

FIGURE 1991

File Name: 53033_1991
Reference: Spatial Services NSW - 1991.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 2002

FIGURE 2002

File Name: 53033_2002
Reference: Google Earth Imagery - 16-10-2002.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 2009

FIGURE 2009

File Name: 53033_2009
Reference: Near Map Imagery - 14-11-2009.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:1,250

0 10 20

metres

Coor. Sys. GDA 1994 MGA Zone 56

72 Greenwich Road
Greenwich, NSW

AERIAL
PHOTOGRAPH 2017

FIGURE 2017

File Name: 53033_2017
Reference: Near Map Imagery - 18-07-2017.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1943

FIGURE 1943

File Name: 53033_1943
Reference: Six Map Imagery - 1943.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1951

FIGURE 1951

File Name: 53033_1951
Reference: Spatial Services NSW - 1951.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1961

FIGURE 1961

File Name: 53033_1961
Reference: Spatial Services NSW - 1961.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1970

FIGURE 1970

File Name: 53033_1970
Reference: Spatial Services NSW - 1970.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1986

FIGURE 1986

File Name: 53033_1986
Reference: Spatial Services NSW - 1986.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 1991

FIGURE 1991

File Name: 53033_1991
Reference: Spatial Services NSW - 1991.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 2002

FIGURE 2002

File Name: 53033_2002
Reference: Google Earth Imagery 16-10-2002.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

HISTORICAL AERIAL PHOTOGRAPH 2009

FIGURE 2009

File Name: 53033_2009
Reference: Near Map Imagery - 14-11-2009.

Legend:

Greenwich Public School Boundary

Approximate Investigation Area

JBS&G

Job No: 53033

Client: Pells Sullivan Meynink

Version: Aerials	Date: 01-Sep-2017
Drawn By: BC	Checked By: SB

Scale 1:2,000

0 20 40

metres

Coor. Sys. GDA 1994 MGA Zone 56

32 Kingslangley Road
Greenwich, NSW

AERIAL
PHOTOGRAPH 2017

FIGURE 2017

File Name: 53033_2017
Reference: Near Map Imagery - 18-07-2017.

Appendix E Land Titles

scottASHWOOD PTY.LTD
An InfoTrack Company

ABN: 42 166 543 255
Ph: 02 9099 7400
Fax: 02 9232 7141

Level 14, 135 King Street, Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

LPI **Sydney**

Address: 32 Kings Langley Road, Greenwich

Description: Lot 1 D.P. 746491

As regards the part tinted pink on attached Cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
24.05.1906 (1906 to 1917)	Elizabeth Hume (Widow) Now Elizabeth Armstrong (Married Woman)	Vol 1695 Fol 79
05.11.1917 (1917 to 1931)	Ellen Colville (Married Woman)	Vol 1695 Fol 79
15.04.1931 (1931 to 1970)	Robert Campbell (Motor Mechanic)	Vol 1695 Fol 79
16.10.1970 (1970 to 1981)	Ruby Campbell (Widow) (Section 93 Application not investigated)	Vol 1695 Fol 79
30.11.1981 (1981 to Date)	# Her Most Gracious Majesty Queen Elizabeth the Second Now # Minister for Education	Vol 1695 Fol 79 Now 1/746491

# Denotes Current Registered Proprietor

Easements & Leases: -NIL

As regards the part tinted green on attached Cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
28.11.1900 (1900 to 1936)	Norman Leslie Gilfillan (Gentleman)	Vol 1339 Fol 122
07.05.1936 (1936 to 1936)	Ann Gilfillan (Widow) (Application by Transmission not investigated)	Vol 1339 Fol 122
31.10.1936 (1936 to 1942)	Charles Thomas Richardson (Public Accountant) John Webb Alexander (Retired Grazier) Dudley Francis John Harricks (Engineer)	Vol 1339 Fol 122
19.10.1942 (1942 to 1942)	John Webb Alexander (Retired Grazier) Dudley Francis John Harricks (Engineer)	Vol 1339 Fol 122
19.10.1942 (1942 to 1950)	Hillcrest School	Vol 1339 Fol 122
24.02.1950 (1950 to Date)	# The Minister for Public Instruction (Resumed under the Public Works Act, 1912 for a Public School) Now # Minister for Education	Vol 1339 Fol 122 Now 1/746491

# Denotes Current Registered Proprietor

Easements & Leases: -NIL

scottASHWOOD PTY.LTD
An InfoTrack Company

ABN: 42 166 543 255
Ph: 02 9099 7400
Fax: 02 9232 7141

Level 14, 135 King Street, Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards the part tinted blue on attached Cadastre

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
04.01.1901 (1901 to 1936)	Norman Leslie Gilfillan (Gentleman)	Vol 1341 Fol 70
07.05.1936 (1936 to 1936)	Ann Gilfillan (Widow)	Vol 1341 Fol 70
31.10.1936 (1936 to 1942)	Charles Thomas Richardson (Public Accountant) John Webb Alexander (Retired Grazier) Dudley Francis John Harricks (Engineer)	Vol 1341 Fol 70
19.10.1942 (1942 to 1942)	John Webb Alexander (Retired Grazier) Dudley Francis John Harricks (Engineer)	Vol 1341 Fol 70
19.10.1942 (1942 to 1950)	Hillcrest School	Vol 1341 Fol 70
24.02.1950 (1950 to Date)	# The Minister for Public Instruction (Resumed under the Public Works Act, 1912 for a Public School) Now # Minister for Education	Vol 1341 Fol 70 Now 1/746491

# Denotes Current Registered Proprietor

Easements: -

- 19.09.1995 (D.P. 853103) – Easement to Drain Water 1.2 wide

Leases: -NIL

Yours Sincerely
James McDonnell
9 August 2017

Land & Property Information

Cadastral Records Enquiry Report

Requested Parcel : Lot 1 DP 746491 **Identified Parcel** : Lot 1 DP 746491

Locality : GREENWICH **LGA** : LANE COVE **Parish** : WILLOUGHBY **County** : CUMBERLAND

Report Generated 1:13:54 PM, 9 August, 2017

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

Land & Property Information

Cadastral Records Enquiry Report

Requested Parcel : Lot 1 DP 746491

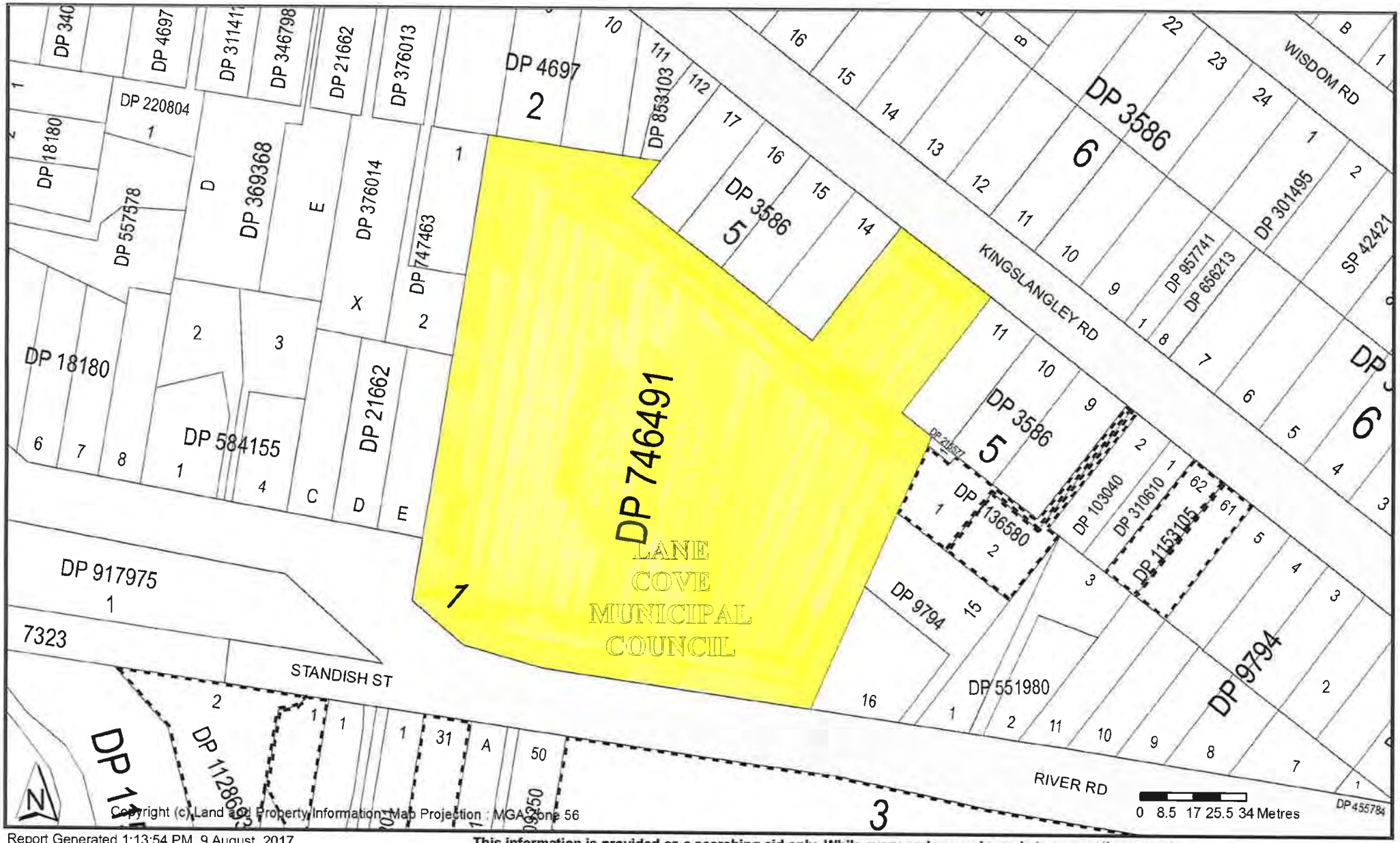
Identified Parcel : Lot 1 DP 746491

Locality : GREENWICH

LGA : LANE COVE

Parish : WILLOUGHBY

County : CUMBERLAND



 Map Projection : MGA Zone 56

Report Generated 1:13:54 PM, 9 August, 2017

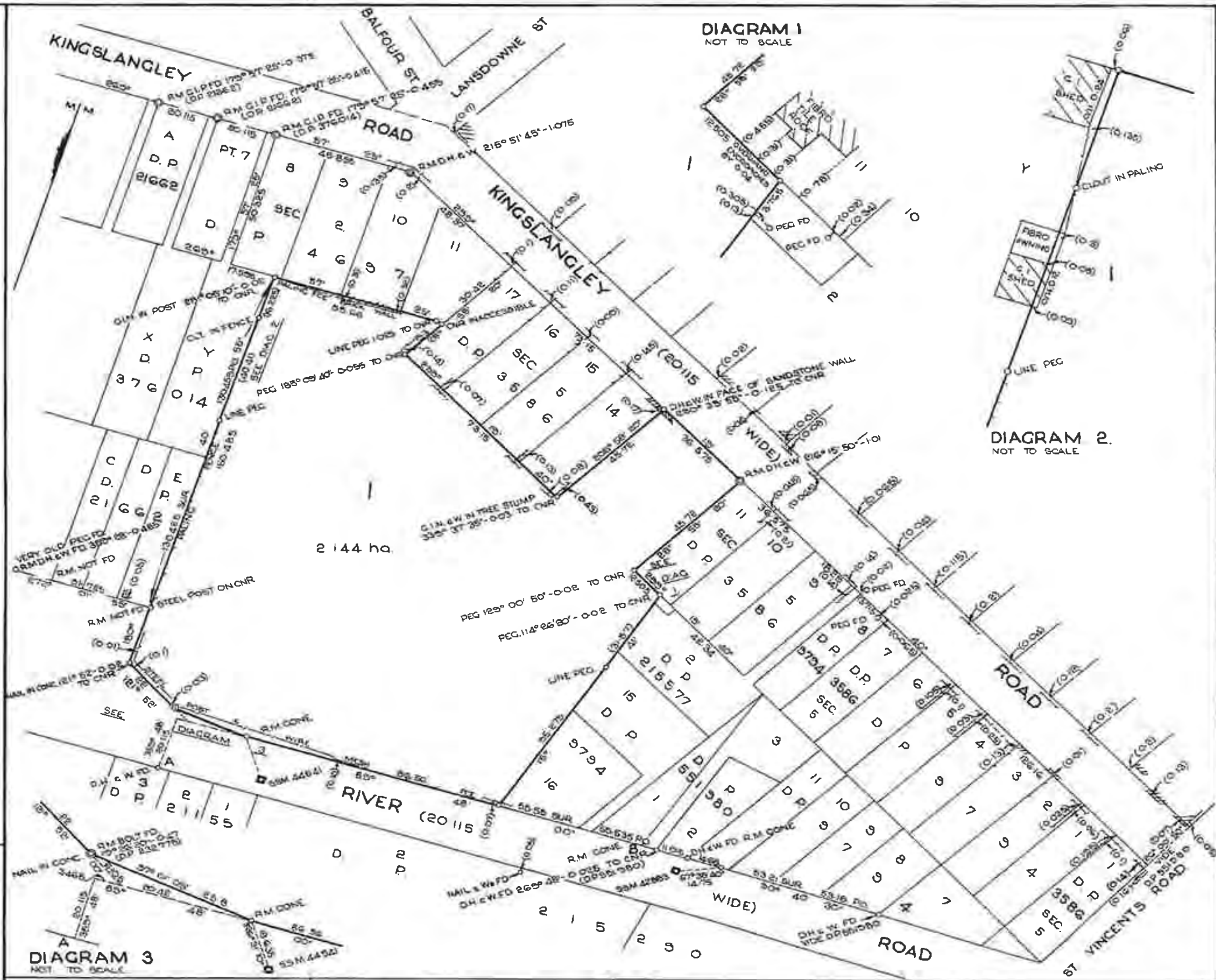
This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

PLAN FORM 2

'Plan Drawing only to appear in this space'

*OFFICE USE ONLY

Signatures and seals only.



DP 746491	(E)
Registered:	29-6-1987
C A	
Title System	TORRENS
Purpose	ACQUISITION (NOT A CURRENT PLAN AT REG'N - SEC 327AA L G ACT)
Ref Map	U0952-64 #
Last Plan	DP 3586, DP 723864

PLAN OF CONSOLIDATION OF LOTS 12 & 13, SEC 5, D.P. 3586 ~~& PT LOT 46, PT LOT 47, PT LOT 48 AS SHOWN ON MS 13436 Sy~~ LOT 1 IN DP 723864

Reduction Ratio 1: 1000
Lengths are in metres.

~~Mun~~/~~Shire~~ ~~City~~	LANE COVE
Locality	GREENWICH
Parish	WILLOUGHBY
County	CUMBERLAND

This is sheet ~~1 of my plan in~~ sheets
(Delete if inapplicable)

I, GEORGE ALEXANDER WINNALL
of PUBLIC WORKS DEPT. SYDNEY
a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made *(1) by me ~~(2) under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on †...
7TH JANUARY 1987

Signature: George Winnall
Surveyor registered under Surveyors Act, 1929 as amended
*Strike out either (1) or (2). †Insert date of survey.

Panel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

LOT 1 PROPOSED TO BE ACQUIRED.

N00IE14

Council Clerk's Certificate

I hereby certify that —

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 34B of the †Metropolitan Water, Sewerage and Drainage Act, 1924, as amended, Hunter District Water, Sewerage, and Drainage Act, 1938, as amended

have been complied with by the applicant in relation to the proposed .... (insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No.

Date

(Signature)
Council Clerk

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
†Delete if inapplicable.

MPD

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

SURVEYOR'S REFERENCE S.B. 31872

PLAN FORM 2

SIGNATURE AND SEALS ONLY

- Kelli Stuart

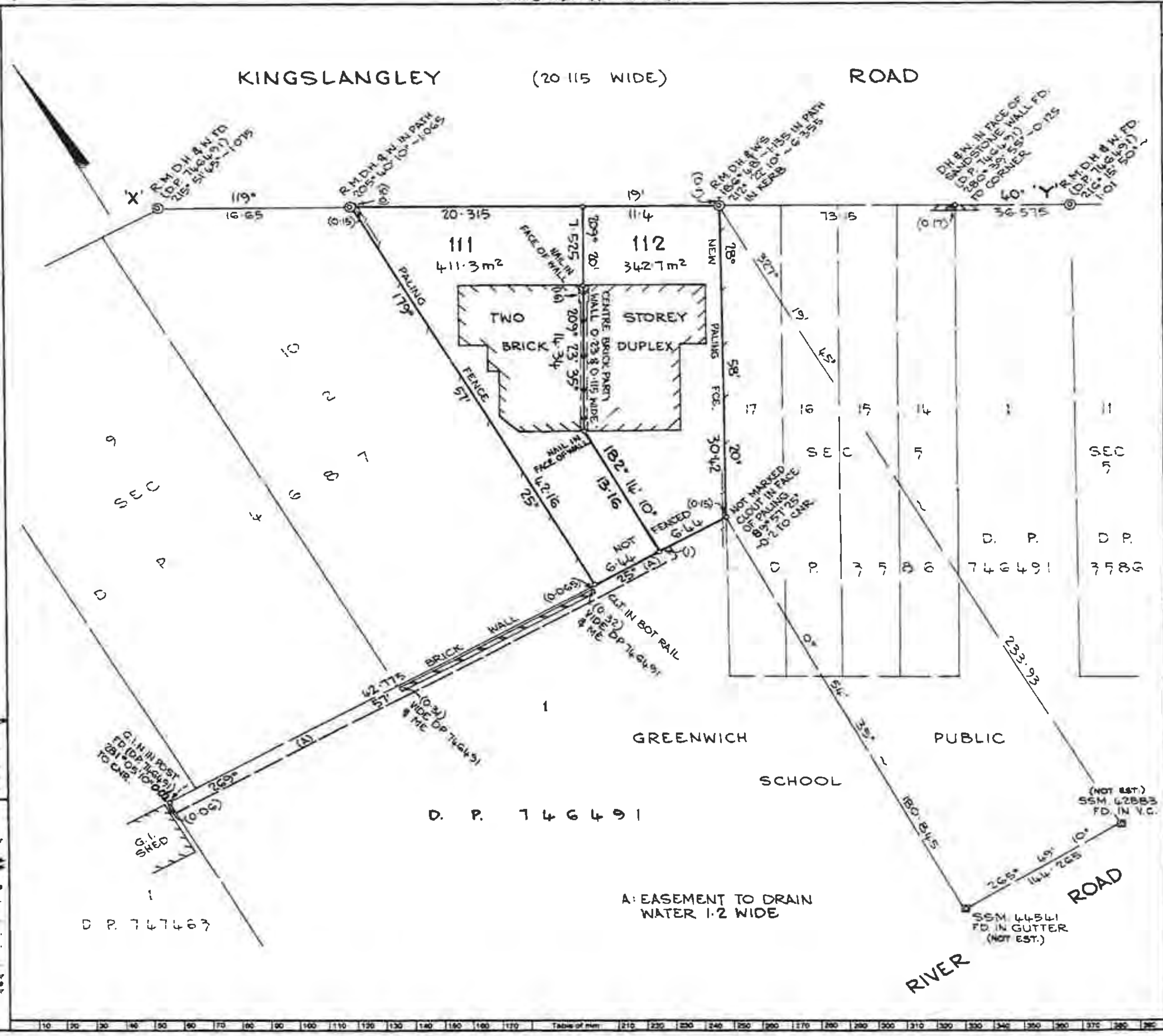
REGISTERED PROPRIETORS

SECRETARY / GENERAL MANAGER / DEPARTMENT OF SCHOOL EDUCATION

Signed by me as delegate of the Minister for Education and Training pursuant to Section 123 of the Education Reform Act 1990 and I hereby certify that I have no notice of the revocation of such delegation.

WITNESS

Plan Drawing only to appear in this space



WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

DP 853103

Registered 19 9 1995

C.A: Nº 2762 OF 31·7·1995

Title System: TORRENS

Purpose: SUBDIVISION

Ref Map: U0952-64

Last Plan: DP4697

PLAN OF SUBDIVISION OF LOT 11 SECTION 2 IN D.P. 4697 AND EASEMENT TO DRAIN WATER OVER LOT 1 IN DP 746491

Lengths are in metres. Reduction Ratio 1:250

LGA: LANE COVE

Locality: GREENWICH

Parish: WILLOUGHBY

County: CUMBERLAND

This is sheet 1 of my plan in ~~sheets~~ ~~(Delete if inapplicable).~~

I, JOHN BALLENDEN of P.O. BOX 150 BEXLEY NTH 2207 a surveyor registered under the Surveyors Act, 1929 as amended, hereby certify that the survey represented in this plan is accurate and has been made in accordance with the Survey Practice Regulation 1990 and was completed on 14-4-1995

Signature: J. P. Ballenden

Surveyor registered under Surveyors Act, 1929, as amended.

Datum Line of Azimuth 'X' - 'Y'

Plans used in preparation of survey/~~compilation~~

DP 4697
DP 3586
DP 746491
DP 723864
DP 747463
DP 9794

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED, IT IS INTENDED TO CREATE:

1. EASEMENT TO DRAIN WATER 1·2 WIDE
2. RESTRICTION ON USE
3. POSITIVE COVENANT

A | 1 | A | 2 | O | O | V

Crown Lands Office Approval

PLAN APPROVED .... Authorised Officer

Land District ....

Paper No ....

Field Book .... pages ....

Council's Certificate

I hereby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

~~(b) the requirements of † Part 3 Division 2 of the Water Board Act 1987, or † Part 5 Division 7 of the Hunter Water Board (Corporatisation) Act 1991~~

have been complied with by the applicant in relation to the proposed "SUBDIVISION" (insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. 2762

Date 31/07/95

(Signature) .... General Manager/Authorised Person

Council File No DA 164/94

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Water Board and the Hunter Water Corporation Ltd.

†Delete if inapplicable

SURVEYOR'S REFERENCE: 410

land as is private property is hereby resumed, under the Public Works Act, 1912, as amended, for the following public purpose, namely, a Public School at BERRIMA, and that the said land is vested in the Minister of Public Instruction as Constructing Authority on behalf of His Majesty the King.

Dated this fifteenth day of February, one thousand nine hundred and fifty.

J. NORTHCOTT, Governor.

By His Excellency's Command,

R. J. HEFFRON, Minister of Public Instruction.

THE SCHEDULE.

All that piece or parcel of land situate in the Shire of Mittagong, town of Berrima, parish of Berrima, county of Camden, and State of New South Wales, being allotments 7, 8 and 9 of section 1,—having an area of 1 acre 1 rood 31 perches or thereabouts, and said to be in the possession of trustees of the will of Robert Green.

Also, all that piece or parcel of land situate as above, being allotment 10 of section 1,—having an area of 1 rood 36 perches or thereabouts, and said to be in the possession of John Geoffrey Schott. (3125)

NOTIFICATION OF RESUMPTION OF LAND UNDER THE PUBLIC WORKS ACT, 1912, AS AMENDED.

IT is hereby notified and declared by His Excellency the Governor, acting with the advice of the Executive Council, that so much of the land described in the Schedule hereto as is Crown land is hereby appropriated, and so much of the said land as is private property is hereby resumed, under the Public Works Act, 1912, as amended, for the following public purpose, namely, a Public School at GREENWICH, and that the said land is vested in the Minister of Public Instruction as Constructing Authority on behalf of His Majesty the King.

Dated this twenty-second day of February, one thousand nine hundred and fifty.

J. NORTHCOTT, Governor.

By His Excellency's Command,

GEO. WEIR, for Minister of Public Instruction.

THE SCHEDULE.

All that piece or parcel of land situate in the Municipality of Lane Cove, parish of Willoughby, county of Cumberland, and State of New South Wales, being lot 13 of section 5 in deposited plan 3,586,—having an area of 33 perches or thereabouts, and said to be in the possession of Hillcrest School.

Also, all that piece or parcel of land situate as above, being part of lots 46, 47 and 48 of section E of a subdivision of portion 322 Pb., and also being the whole of the land comprised in Certificate of Title, volume 1,341, folio 79,—having an area of 4 acres 3 roods 23 perches or thereabouts, and said to be in the possession of Hillcrest School. (3122)

PUBLIC INSTRUCTION ACT OF 1880, AS AMENDED.

NOTIFICATION OF RESCISSION OF RESUMPTION.

Rescission of Resumption of Land acquired for High School and Technical College purposes at Casino, New South Wales.

IN pursuance of the provisions contained in subsection (1) of section 4A of the Public Instruction Act of 1880, as amended, His Excellency the Governor, with the advice of the Executive Council, DOTH by this notification RESCIND the notification of resumption of land under the Public Works Act, 1912, as amended, dated the 15th January, 1947, and published in the Government Gazette No. 16 of the 24th January, 1947, in so far as such notification relates to the land described in the Schedule hereunder.

THE SCHEDULE.

All that piece or parcel of land situate in the Municipality of Casino, parish of South Casino, county of Richmond, and State of New South Wales, being allotment 11 of section 37 of the town of Casino,—having an area of 1 rood 30¼ perches or thereabouts.

Dated at Sydney, this fifteenth day of February, 1950.

J. NORTHCOTT, Governor.

By His Excellency's Command,

(3124) R. J. HEFFRON, Minister of Public Instruction.

NOTIFICATION OF APPROPRIATION AND RESUMPTION OF LAND FOR RAILWAY PURPOSES UNDER THE MINISTRY OF TRANSPORT ACT, 1932, AND THE PUBLIC WORKS ACT, 1912, AS RESPECTIVELY AMENDED.

WHEREAS the Commissioner for Railways is desirous of acquiring the land referred to in the Schedule hereto for the purpose of maintaining the traffic on the existing line of railway between Central and Tempe, by the provision of improved access in the vicinity of Chalmers-street Railway Station, deemed to be requisite and convenient for the use of the railways, and whereas the said land is, in my opinion, required for carrying out the said work: Now, therefore, I, the Governor, with the advice of the Executive Council, in pursuance of the Ministry of Transport Act, 1932, and the Public Works Act, 1912, as respectively amended, do hereby direct that the said work shall be carried out by the Commissioner for Railways, as the Constructing Authority; and I do declare by this notification to be published in the Government Gazette and in one or more newspapers published or circulated in the Police District wherein the said land is situated that the land referred to in the Schedule hereto is hereby appropriated and resumed for the purpose hereinbefore referred to.

SCHEDULE.

All that parcel of land situate in the City of Sydney, parish of Alexandria, county of Cumberland and State of New South Wales being part of lot 12 section 2 of Central Railway Station lands and forming also part of the land comprised in Certificates of Title registered volume 4319 folios 188 and 189 Commencing at the western corner of the land comprised in the aforesaid Certificates of Title and bounded thence by part of the south-eastern side of Randle-lane bearing 33 degrees 5 minutes 17 seconds 12 feet 2 inch thence by lines bearing 121 degrees 44 minutes 40 seconds 38 feet 5⅝ inches and 88 degrees 34 minutes 40 seconds 11 feet ¾ inch thence by part of the western side of Elizabeth-street bearing 178 degrees 28 minutes 27 seconds 23 feet 4¾ inches and thence by the south-western boundary of land comprised in the said Certificates of Title bearing 302 degrees 56 minutes 50 seconds 60 feet 10½ inches to the point of commencement being 2¾ perches in area and said to be vested in Motor Wheel and Tyre Co. Ltd.

Signed at Sydney, this fifteenth day of February, 1950.

J. NORTHCOTT, Governor.

By His Excellency's Command,

M. O'SULLIVAN, Minister for Transport.

(3063) GOD SAVE THE KING!

(3028) Department of Public Health,
Sydney, 17th February, 1950.

PUBLIC HEALTH ACT, 1902-1944, SECTION 55,
AREA No. 589.

UNHEALTHY Building Land in the vicinity of Marks Point, Lake Macquarie Shire, Parish of Kahibah, County of Northumberland.

THE Board of Health have reported that, after due inquiry, they are of the opinion that it would be prejudicial to health if certain land, situated on the shore of Lake Macquarie and Village Bay, described in Schedule hereunder, were built upon in its present condition.

The Board of Health have further reported that in order to render such land fit to be built upon, it is necessary that:—

(a) The land be raised with clean sand or soil at the shore of Village Bay and Lake Macquarie to a height of 5 feet 9 inches above Newcastle sewerage datum, rising thence on the even grade to a height above that datum of 7 feet at the property lines at Marks Point road.

(b) The floors of any buildings which may be erected thereon be laid on joists, the undersides of which shall be not less than 18 inches above the surface of the land when raised.

(c) The whole of the work be done to the satisfaction of the Board of Health.

Now, therefore, in pursuance of the power and authority vested in me by section 55 (1) of the Public Health Act, 1902-1944, I hereby declare that such land shall not be built upon until the measures above referred to, which are also specified in a document deposited in the office of the Local Authority (The Council of the Shire of Lake Macquarie), and open to the inspection of any person, have been complied with, or until this notice has been revoked by me.

C. A. KELLY, Minister for Health.

Historical Title

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
7/8/2017 1:12PM

FOLIO: 12/5/3586

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 1695 FOL 79

Recorded	Number	Type of Instrument	C.T. Issue
16/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
20/12/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
24/4/1991	Z621441	DEPARTMENTAL DEALING	FOLIO CANCELLED

*** END OF SEARCH ***

Historical Title

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
7/8/2017 1:12PM

FOLIO: 13/5/3586

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 1339 FOL 122

Recorded	Number	Type of Instrument	C.T. Issue
16/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
5/12/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
24/4/1991	Z621441	DEPARTMENTAL DEALING	FOLIO CANCELLED

*** END OF SEARCH ***

Historical Title

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
7/8/2017 1:05PM

FOLIO: 1/746491

First Title(s): OLD SYSTEM
Prior Title(s): 12-13/5/3586 VOL 1341 FOL 70

Recorded	Number	Type of Instrument	C.T. Issue
30/6/1987	DP746491	DEPOSITED PLAN	LOT RECORDED FOLIO NOT CREATED
24/4/1991	Z582848	APPLICATION FOR ISSUE OF CERTIFICATE OF TITLE	FOLIO CREATED EDITION 1
19/9/1995	DP853103	DEPOSITED PLAN	EDITION 2

*** END OF SEARCH ***

Title Search

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 1/746491

SEARCH DATE	TIME	EDITION NO	DATE
9/8/2017	12:19 PM	2	19/9/1995

LAND

LOT 1 IN DEPOSITED PLAN 746491
AT GREENWICH
LOCAL GOVERNMENT AREA LANE COVE
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP746491

FIRST SCHEDULE

MINISTER FOR EDUCATION

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 F250123 LAND EXCLUDES MINERALS (S.141 PUBLIC WORKS ACT, 1912)
3 DP853103 EASEMENT TO DRAIN WATER 1.2 WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN DP853103

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

scottASHWOOD PTY.LTD
An InfoTrack Company

ABN: 42 166 543 255
Ph: 02 9099 7400
Fax: 02 9232 7141

Level 14, 135 King Street, Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

LPI **Sydney**

Address: 70A Greenwich Road, Greenwich

Description: Lot A D.P. 930344

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
13.11.1907 (1907 to Date)	# His Most Gracious Majesty King Edward the Seventh (For the Purposes of the Public Instruction Act of 1880) Now # Minister of Education	Vol 1829 Fol 21 Now A/930344

# Denotes Current Registered Proprietor

Easements & Leases: -NIL

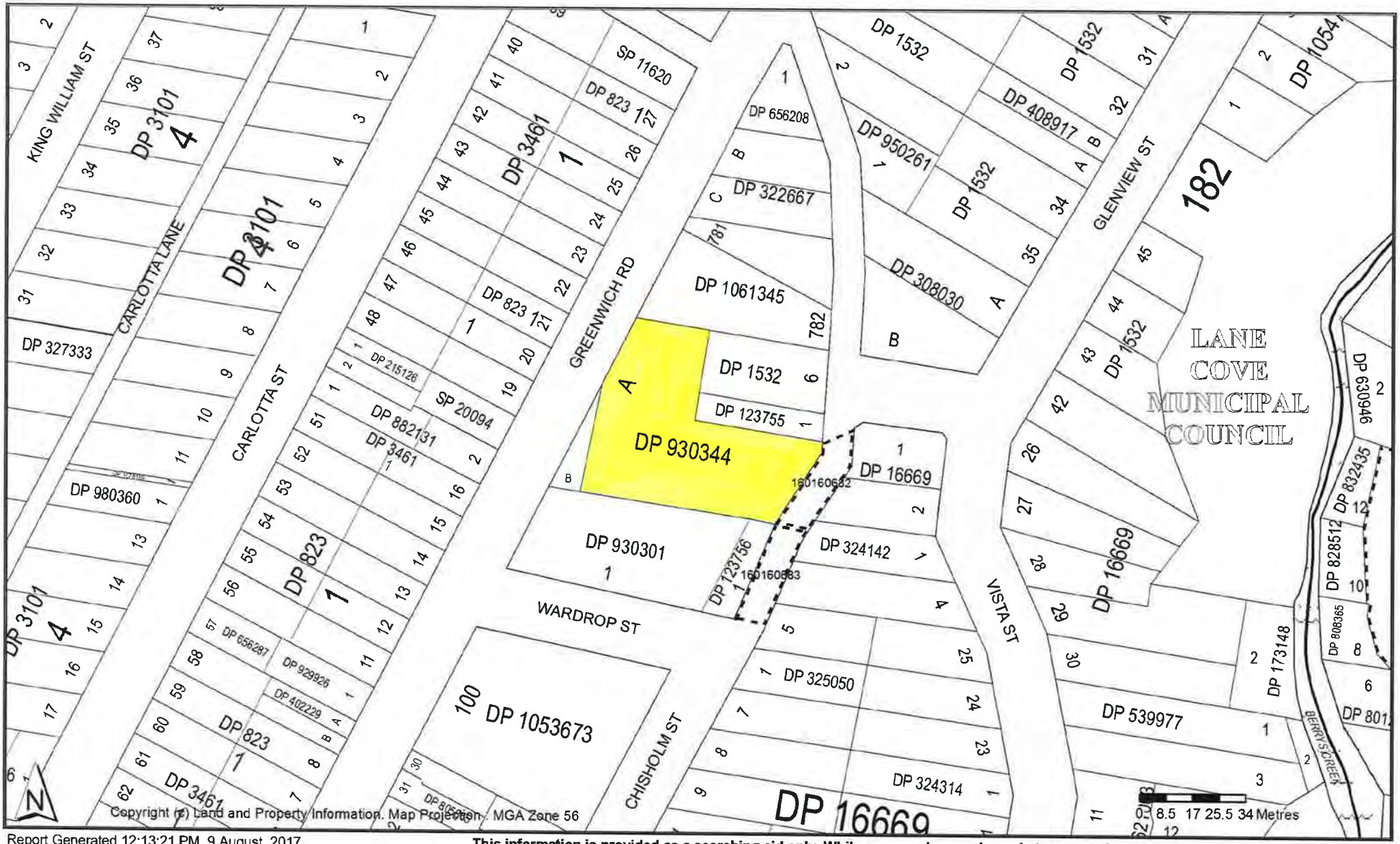
Yours Sincerely
James McDonnell
9 August 2017

NSW Land & Property Information

Cadastral Records Enquiry Report

Requested Parcel : Lot A DP 930344 **Identified Parcel** : Lot A DP 930344

Locality : GREENWICH **LGA** : LANE COVE **Parish** : WILLOUGHBY **County** : CUMBERLAND



Report Generated 12:13:21 PM, 9 August, 2017

This information is provided as a searching aid only. While every endeavour is made to ensure the current cadastral pattern is accurately reflected, the Registrar General cannot guarantee the information provided. For all ACTIVITY PRIOR to SEPT 2002 you must refer to the RGs Charting and Reference Maps.

469152 A of 2 FP930344

Cat Nº Ms 27005 Sy

Papers Alº 07/6368 (E)

PLAN OF

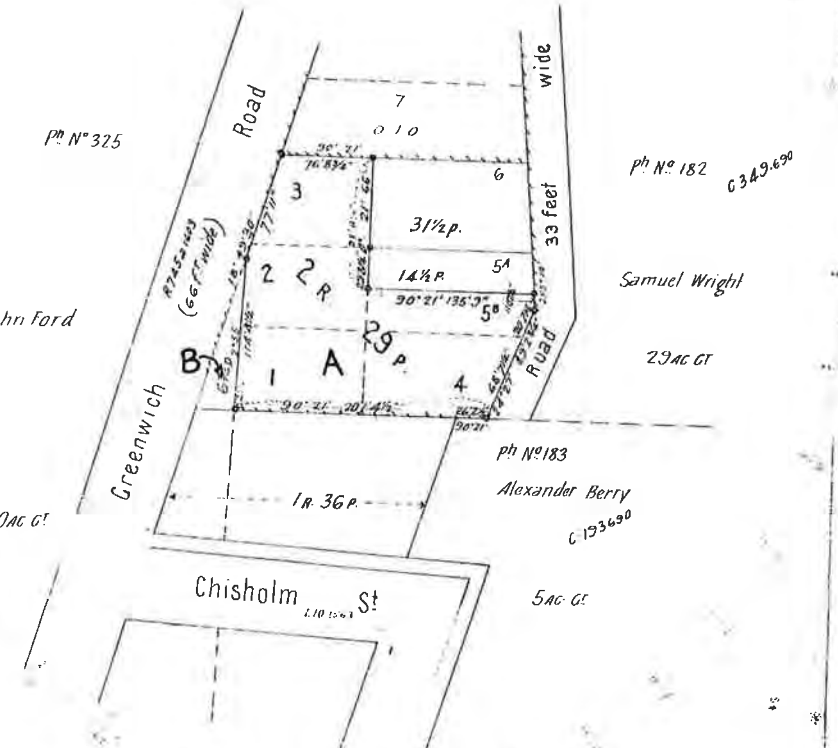
land purchased in connection with Public School site at "Greenwich"

Parish of Willoughby County of Cumberland

Scale 100 feet to an inch

Borough of Lane Cove

Lots 1 to 4 and 5 B Anglo-Australian Assets Cº Ltd. Part of Cert. of Title Vol. 1184 fol. 249.



Azimuth taken from Chisholm St
Field Book Vol 7613 fol. 60

Reference to Traverse

Line	Bearing	Distance
Pegs marked K at all corners and bends		

DECLARATION

I Stuart Randolph Dobbie of Norwich Chambers Hunter Street licensed Surveyor specially licensed under the Real Property Act do hereby solemnly and sincerely declare that the boundaries and measurements of this Plan are correct for the purposes of the said Act and that the said Plan and the survey have been prepared and made by me or under my immediate supervision and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900.

Subscribed and declared before me this day of A.D. 190

J.P.

Licensed Surveyor

Date of Survey 25th April 07

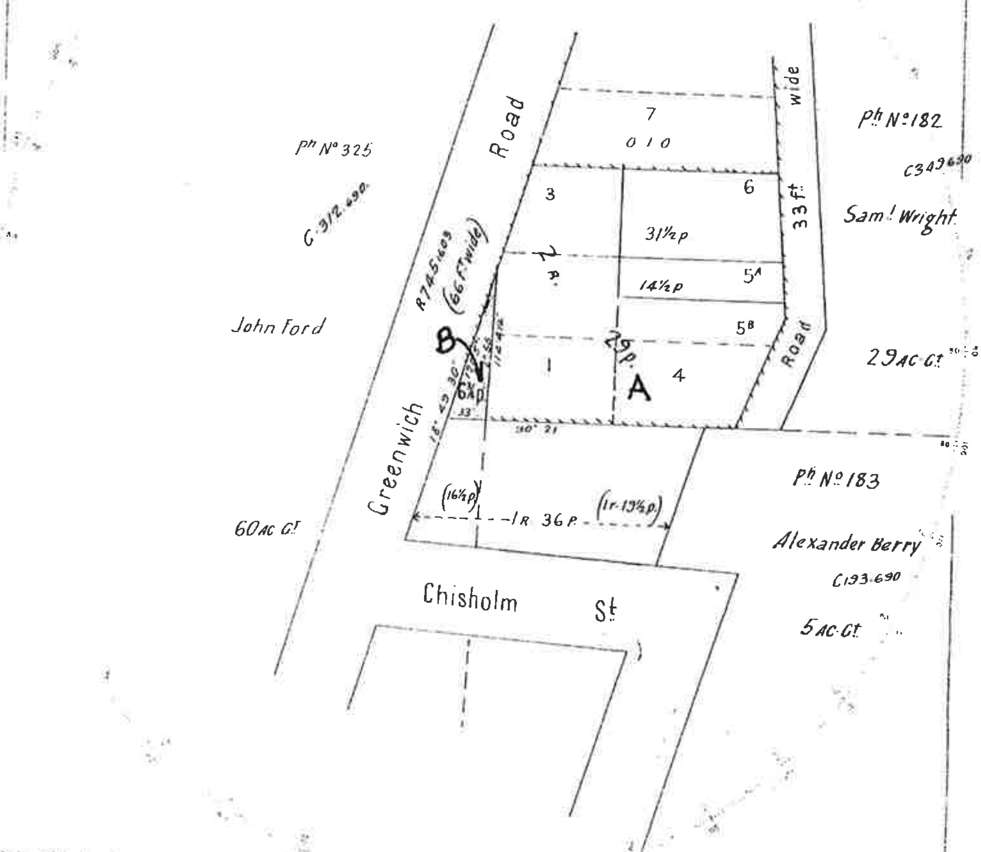
46315 2 — FP930344 (E)

No Ms 2700 Sy — B of 2

Aln 07/6368

PLAN OF

land purchased in connection with Public School site at
"Greenwich"
Parish of Willoughby County of Cumberland
Scale 100 feet to an Inch
Borough of Lane Cove
¾ps Anglo Australian Assets Co Ltd Cert of Title Vol. 1472 fol. 43.



Azimuth taken from Chisholm St
Field Book Vol. 7613 fol. 60

Reference to Traverse.

Line	Bearing	Distance
Pegs marked N at all corners and bends		

BK 139 P 30

DECLARATION.

I Stuart Randolph Dobbie of Hunter Street Sydney Licensed Surveyor, specially licensed under the Real Property Act, do hereby solemnly and sincerely declare that the boundaries and measurements of this Plan are correct for the purposes of the said Act and that the said Plan and the survey have been prepared and made by me, or under my immediate supervision; and I make this solemn declaration, conscientiously believing the same to be true, and by virtue of the provisions of the Oaths Act 1900.

Subscribed and declared before me this
day of A.D. 190

J.P. — Licensed Surveyor

Date of Survey 25th April '07

Historical Title

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
7/8/2017 1:05PM

FOLIO: A/930344

First Title(s): OLD SYSTEM
Prior Title(s): VOL 1829 FOL 21

Recorded	Number	Type of Instrument	C.T. Issue
29/7/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
29/7/1991	DP930344	DEPOSITED PLAN	FOLIO CREATED CT NOT ISSUED
30/11/1993	I833089	APPLICATION	EDITION 1
16/1/2013	AH491580	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

Title Search

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: A/930344

SEARCH DATE	TIME	EDITION NO	DATE
9/8/2017	11:54 AM	1	30/11/1993

LAND

LOT A IN DEPOSITED PLAN 930344
AT GREENWICH
LOCAL GOVERNMENT AREA LANE COVE
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP930344

FIRST SCHEDULE

MINISTER FOR EDUCATION (AP I833089)

SECOND SCHEDULE (2 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)

* 2 LAND EXCLUDES LAND IN RESUMPTION L244065

NOTATIONS

NOTE: THE CERTIFICATE OF TITLE FOR THIS FOLIO OF THE REGISTER DOES NOT INCLUDE SECURITY FEATURES INCLUDED ON COMPUTERISED CERTIFICATES OF TITLE ISSUED FROM 4TH JANUARY, 2004. IT IS RECOMMENDED THAT STRINGENT PROCESSES ARE ADOPTED IN VERIFYING THE IDENTITY OF THE PERSON(S) CLAIMING A RIGHT TO DEAL WITH THE LAND COMPRISED IN THIS FOLIO.

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Appendix F EPA Records

Contaminated land

- Management of contaminated land
- Consultants and site auditor scheme
- Underground petroleum storage systems
- Guidelines under the CLM Act
- NEPM amendment
- Further guidance
- Record of notices
  - About the record
  - Search the record
  - Search tips
  - Disclaimer
- List of NSW contaminated sites notified to EPA
- Frequently asked questions
- Forms
- Other contamination issues
- Contaminated Land Management Program

Home Contaminated land Record of notices

Search results

Your search for: Suburb: GREENWICH

Search Again Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

29 August 2017

Contaminated land

- Management of contaminated land
- Consultants and site auditor scheme
- Underground petroleum storage systems
- Guidelines under the CLM Act
- NEPM amendment
- Further guidance
- Record of notices
  - About the record
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  - Search tips
  - Disclaimer
- List of NSW contaminated sites notified to EPA
- Frequently asked questions
- Forms
- Other contamination issues
- Contaminated Land Management Program

Home Contaminated land Record of notices

Search results

Your search for: LGA: Lane Cove Council

Matched 13 notices relating to 2 sites.

Search Again Refine Search

Suburb	Address	Site Name	Notices related to this site
LANE COVE	Sirius ROAD	Pacific Power	1 current and 8 former
LANE COVE NORTH	428-432 Mowbray ROAD	Former Caltex Service Station	4 former

Page 1 of 1

29 August 2017

GRANVILLE	7-Eleven Service Station 154-160 Parramatta ROAD	Service Station	Regulation under CLM Act not required
GRANVILLE	Woolworths Granville 158 Clyde STREET	Service Station	Under assessment
GRANVILLE	Old Granville Depot 23 Elizabeth STREET	Unclassified	Regulation under CLM Act not required
GRANVILLE	Evans Deacon Ind 2B Factory STREET	Other Industry	Ongoing maintenance required to manage residual contamination (CLM Act)
GRANVILLE	A'Becketts Creek Albert STREET	Unclassified	Under assessment
GREENACRE	Former Plating Works 12 Claremont STREET	Unclassified	Regulation under CLM Act not required
GREENACRE	7-Eleven (former Mobil) Service Station 301-305 Hume HIGHWAY	Service Station	Regulation under CLM Act not required
GREENACRE	Caltex Service Station 87 - 91 Roberts ROAD	Service Station	Regulation under CLM Act not required
GREENWICH	Gore Creek Reserve - Drainage Line St Vincents ROAD	Other Industry	Regulation under CLM Act not required
GRENFELL	Grenfell Gasworks Corner Gooloogong Road & Bourke STREET	Gasworks	Regulation under CLM Act not required
GRENFELL	Former SRA Fuel Depot Grafton STREET	Other Petroleum	Regulation under CLM Act not required
GRETA	redevelopment site 112-114 High STREET	Other Industry	Regulation under CLM Act not required
GRETA	Coles Express Greta 122 New England HIGHWAY	Service Station	Regulation under CLM Act not required
GRETA	Former landfill Hollingshed ROAD	Landfill	Regulation under CLM Act not required
GREYSTANES	United (former Mobil) Service Station 73 Ettalong ROAD	Service Station	Under assessment

Environment protection licences

+ Licensing under the POEO Act
Guide to licensing
eConnect EPA
Licence forms
Licence fees
+ Risk-based licensing
+ Load-based licensing
+ Emissions trading
- POEO Public Register
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Search for licences, applications and notices
Search for penalty notices
Search for prosecutions and civil proceedings
Enforceable undertakings
Exemptions and approvals
Licensing FAQs
List of licences
Unlicensed premises still regulated by the EPA
National Pollutant Inventory
+ Compliance audit program
+ Reporting and managing incidents
+ Wind farm regulation
NSW Gas Plan Regulation
+ Gas industry in NSW
+ Native forest bio-fuel
+ Authorised officers
Regulation of railway systems activities
Scheduled Activities amendment exhibition

Home > Environment protection licences > POEO Public Register > Search for licences, applications and notices

Search results

Your search for: **General Search** with the following criteria

Suburb - GREENWICH
returned 34 results

Export to excel 1 of 2 Pages Search Again

Number	Name	Location	Type	Status	Issued date
6997	HOPE HEALTHCARE LIMITED	97 - 115 RIVER ROAD, GREENWICH, NSW 2065	POEO licence	Surrendered	07 Sep 2000
1019133	HOPE HEALTHCARE LIMITED	97 - 115 RIVER ROAD, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	25 Jul 2002
1044473	HOPE HEALTHCARE LIMITED	97 - 115 RIVER ROAD, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	14 Feb 2005
661	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	POEO licence	Issued	21 Sep 2000
1011542	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	03 Feb 2003
1026078	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	29 Apr 2003
1038436	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	27 Jul 2004
1052515	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	27 Jan 2006
1057746	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	13 Apr 2006
1074280	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	28 Nov 2007
1104118	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	19 Jan 2010
1110938	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	27 Jan 2010
1111156	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	20 Jul 2010
1119078	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	14 Sep 2010
1123624	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	14 Jan 2011
1507243	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	02 Nov 2012
1510092	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	20 Nov 2012
3085767558	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	Penalty Notice	Issued	13 Dec 2012
1511209	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	09 Jan 2013
3085768474	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	Penalty Notice	Issued	24 Jan 2013

Environment protection licences

+ Licensing under the POEO Act
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Licence fees
+ Risk-based licensing
+ Load-based licensing
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Search for prosecutions and civil proceedings
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Licensing FAQs
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Unlicensed premises still regulated by the EPA
National Pollutant Inventory
+ Compliance audit program
+ Reporting and managing incidents
+ Wind farm regulation
NSW Gas Plan Regulation
+ Gas industry in NSW
+ Native forest bio-fuel
+ Authorised officers
Regulation of railway systems activities
Scheduled Activities amendment exhibition

Home > Environment protection licences > POEO Public Register > Search for licences, applications and notices

Search results

Your search for: **General Search** with the following criteria

Suburb - GREENWICH
returned 34 results

Export to excel

2 of 2 Pages

Search Again

Number	Name	Location	Type	Status	Issued date
1511517	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.96 Prevention Notice	Issued	30 Jan 2013
1512326	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	Compliance Audit	Complete	21 Feb 2013
1511707	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	30 Apr 2013
1532087	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	24 Jul 2015
1533683	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	26 Nov 2015
1543417	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	17 Aug 2016
1546459	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	18 Nov 2016
1547857	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	20 Dec 2016
1548131	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.91 Clean Up Notice	Issued	06 Jan 2017
1548219	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.110 Variation of Clean Up Notice	Issued	11 Jan 2017
1548133	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.96 Prevention Notice	Issued	17 Jan 2017
1549855	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.110 Variation of Prevention Notice	Issued	01 Mar 2017
1548953	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	28 Mar 2017
1552854	VIVA ENERGY AUSTRALIA PTY LTD	MANNS AVENUE, GREENWICH, NSW 2065	s.58 Licence Variation	Issued	26 Jun 2017

Appendix G Section 149 (2) and (5) Certificate

Lane Cove Council
48 Longueville Road Lane Cove NSW 2066 Tel: 9911 3555 Fax: 9911 3600

PLANNING CERTIFICATE

Under Section149 Environmental Planning and Assessment Act, 1979

Applicant:
Scott Burrows
Level 1, 50 Margaret Street
Sydney 2000

Date of Issue: 31/07/2017
Council Reference: 119216
Applicant Reference: 53033
Certificate No: 962

Owner(s): **Dept of Education**
Property address: **72A Greenwich Road GREENWICH NSW 2065**
Description: **LOT: A DP: 930344**
Property Reference: **16567**

INFORMATION PROVIDED PURSUANT TO SECTION 149(2) & (5) OF THE ACT

The planning information contained in this certificate applies specifically to the land.

Table of Contents

PO Box 20 Lane Cove NSW 1595 Lane Cove
Email: [illegible] • Website: www.lanecove.nsw.gov.au • ABN 42 [illegible]

PART 2:

Sect 1 Names of relevant planning instruments and DCP

1) The name of each environmental planning instrument that applies to the carrying out of development on the land.
Lane Cove Local Environmental Plan 2009 - gazetted on 19 February 2010

State Environmental Planning Policy No.19: Bushland in Urban Areas - gazetted 24 October 1986

State Environmental Planning Policy No.32: Urban Consolidation (Redevelopment of Urban Land) - gazetted 15 November 1991

State Environmental Planning Policy No.55: Remediation of Land - gazetted 28 August 1998

State Environmental Planning Policy No.64: Advertising and Signage - gazetted 16 March 2001

State Environmental Planning Policy (BASIX) 2004 - gazetted 25 June 2004

State Environmental Planning Policy (Major Projects) 2005 - gazetted 1 August 2005

State Environmental Planning Policy (Housing for seniors or people with a disability) 2004 Amendment No.2 - gazetted 31 March 2004 effective 12 October 2007

State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) - gazetted 28 September 2007

State Environmental Planning Policy (Infrastructure) 2007 - gazetted 21 December 2007; commenced 1 January 2008

State Environmental Planning Policy (Exempt & Complying Development Codes) - gazetted 12 December 2008

2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultations or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)

3) The name of each development control plan that applies to the carrying out of development on the land.
Lane Cove Development Control Plan, effective 22 February 2010

4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or draft environmental planning instrument.

Sect. 2 Zoning and land use under relevant LEPs

The land is zoned: Low Density Residential R2

PO Box 20 Lane Cove NSW 1595 DX 3021 Lane Cove
Email: council@lanecove.nsw.gov.au • Website: www.lanecove.nsw.gov.au • ABN 42 062 211 672

1 Objectives of zone

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To retain, and where appropriate improve, the existing residential amenity of a detached single family dwelling area.
- To encourage new dwelling houses or extensions of existing dwelling houses that are not highly visible when viewed from the Lane Cove River or Parramatta River.
- To ensure that landscaping is maintained and enhanced as a major element in the residential environment.

2 Permitted without consent

Home occupations

3 Permitted with consent

Bed and breakfast accommodation; Boarding houses; Child care centres; Community facilities; Dual occupancies; Dwelling houses; Group homes; Health consulting rooms; Home businesses; Home industries; Hospitals; Multi dwelling housing; Places of public worship; Respite day care centres; Roads; Signage

4 Prohibited

Any development not specified in item 2 or 3

5) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:
No

6) Whether the land includes or comprises critical habitat:
NO

7) Whether the land is in a conservation area (however described):
NO

8) Whether an item of environmental heritage (however described) is situated on the land:
Lane Cove LEP 2009 Heritage Schedule 5 (Environmental Heritage) applies.

Sec: 2A Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

PO Box [illegible] Lane Cove NSW 1595 Lane Cove
[illegible] • Website: www.lanecove.nsw.gov.au • ABN [illegible]

Sec: 3 Complying development

1) The extent to which the land is on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(1) Complying development may not be carried out on any part of the land under the SEPP.
(2) Affects the land as a whole. Reason: Local heritage item or draft heritage item under Lane Cove LEP.

(3) Not applicable

Sec: 4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Services, Technology and Administration.

NO

Sec: 4A Certain information relating to beaches and coasts

Not applicable.

Sec: 4B Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Not applicable.

Sec: 5 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*:
NO

Sec: 6 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

PO Box 20 Lane Cove NSW 1595 Lane Cove
Email: [illegible] • Website: www.lanecove.nsw.gov.au • ABN 42 062 211 625

48 Longueville Road Lane Cove NSW 2066 Tel: 9911 3555 Fax: [illegible]

a) Division 2 of Part 3 of the *Roads Act 1993*:
Not affected by road widening

b) Any environmental planning instrument:
NO

c) Any resolution of the council:
NO

Sec: 7 Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:

a) Adopted by the council, or

b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of :-

Land slip:
NO

Bushfire:
See Section 11.

Tidal inundation:
NO

Subsidence:
NO

Acid Sulphate soils:
NO

Sec: 7A Flood related development controls information

1) Whether or not development on that land or part of the land for the purposes of swelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

Overland Flow

A study is currently being undertaken to determine exact locations subject to overland flow in the Municipality of Lane Cove. Until such time as Council has completed this work, property owners should conduct their own investigations to be satisfied that this property is not affected by overland flow.

Words and expressions in this clause have the same meanings as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*.

Sec: 8 Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.
NO

Sec: 9 Contributions plans

Lane Cove Section 94 Contributions Plan.

Sec: 9A Biodiversity certified land

Not applicable.

Sec: 10 Biobanking agreements

Not applicable.

Sec: 11 Bushfire prone land

The land is not identified on the Lane Cove Bushfire Prone Land Map dated 21st October 2004.

Sec: 12 Property vegetation plans

Not applicable.

Sec: 13 Orders under Trees (Disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).
NONE

Sec: 14 Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

NONE

Sec: 15 Site compatibility certificates and conditions for seniors housing

If the land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:
NO

Sec: 16 Site compatibility certificates for infrastructure

Whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land.
NO

Sec: 17 Site compatibility certificates and conditions for affordable rental housing

Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land:
NO

Sec: 18 Paper Subdivision Information

1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
Not applicable

2) The date of an subdivision order that applies to the land.
Not applicable

3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

a) That the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,
NO

b) That the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

[illegible]

c) That the land to which the certificate relates is subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
NO

d) That the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

e) That the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.
NO

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 149 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.

For further information, please contact the Strategic Planning Department on 9911 3612.

[illegible]

Part 5:
ADDITIONAL INFORMATION PROVIDED UNDER SECTION 149(5) OF THE ACT

The instruments and the plans should be examined in relation to the specific restrictions which may apply to any development which may be proposed.

The land is subject to a Tree Preservation Order, details of which are available at Council's Customer Service Centre.

The Register of Consents may be examined at Council's Customer Service Centre for particulars relating to development consents which may have been issued for the use or development of the land.

Enquiries regarding Arterial Road Reservations and Regional Open Space should be directed to the Roads and Traffic Authority and Department of Planning respectively.

The information provided concerning the Coastal Protection Act, 1979 is only to the extent that the Council has been notified by the Department of Public Works and Services.

For more information, please contact the Strategic Planning Department on 9911 3555

Lane Cove Council

[illegible] Lane Cove NSW [illegible] Tel [illegible] Fax [illegible]

PLANNING CERTIFICATE

Under Section149 Environmental Planning and Assessment Act, 1979

Applicant:

Scott Burrows

Level 1, 50 Margaret Street

Sydney 2000

Date of Issue:	31/07/2017
Council Reference:	119215
Applicant Reference:	
Certificate No:	961

Owner(s):	**Dept of Education**
Property address:	**30-32 Kingslangley Road GREENWICH NSW 2065**
Description:	**LOT: 1 DP: 746491 LOC:**
Property Reference:	**13832**

INFORMATION PROVIDED PURSUANT TO SECTION 149(2) & (5) OF THE ACT

The planning information contained in this certificate applies specifically to the land.

Table of Contents

[illegible]

PART 2:

Sec. 1 Names of relevant planning instruments and DCP

1) The name of each environmental planning instrument that applies to the carrying out of development on the land.
Lane Cove Local Environmental Plan 2009 - gazetted on 19 February 2010

State Environmental Planning Policy No.19: Bushland in Urban Areas - gazetted 24 October 1986

State Environmental Planning Policy No.32: Urban Consolidation (Redevelopment of Urban Land) - gazetted 15 November 1991

State Environmental Planning Policy No.55: Remediation of Land - gazetted 28 August 1998

State Environmental Planning Policy No.64: Advertising and Signage - gazetted 16 March 2001

State Environmental Planning Policy (BASIX) 2004 - gazetted 25 June 2004

State Environmental Planning Policy (Major Projects) 2005 - gazetted 1 August 2005

State Environmental Planning Policy (Housing for seniors or people with a disability) 2004 Amendment No.2 - gazetted 31 March 2004 effective 12 October 2007

State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) - gazetted 28 September 2007

State Environmental Planning Policy (Infrastructure) 2007 - gazetted 21 December 2007; commenced 1 January 2008

State Environmental Planning Policy (Exempt & Complying Development Codes) - gazetted 12 December 2008

2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultations or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)

3) The name of each development control plan that applies to the carrying out of development on the land.
Lane Cove Development Control Plan, effective 22 February 2010

4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or draft environmental planning instrument.

Sec. 2 Zoning and land use under relevant LEPs

The land is zoned: Low Density Residential R2

1 Objectives of zone

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To retain, and where appropriate improve, the existing residential amenity of a detached single family dwelling area.
- To encourage new dwelling houses or extensions of existing dwelling houses that are not highly visible when viewed from the Lane Cove River or Parramatta River.
- To ensure that landscaping is maintained and enhanced as a major element in the residential environment.

2 Permitted without consent

Home occupations

3 Permitted with consent

Bed and breakfast accommodation; Boarding houses; Child care centres; Community facilities; Dual occupancies; Dwelling houses; Group homes; Health consulting rooms; Home businesses; Home industries; Hospitals; Multi dwelling housing; Places of public worship; Respite day care centres; Roads; Signage

4 Prohibited

Any development not specified in item 2 or 3

5) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:
No

6) Whether the land includes or comprises critical habitat:
NO

7) Whether the land is in a conservation area (however described):
NO

8) Whether an item of environmental heritage (however described) is situated on the land:
NO

Sec: 2A Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

Sec: 3 Complying development

1) The extent to which the land is on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(1) Complying development may be carried out on the land as a whole under the SEPP in accordance with the following Codes (unless the land is excluded elsewhere in this Section):- General Housing Code, Housing Alterations Code, General Development Code, Subdivision Code, Demolition Code and/or Fire Safety Code.

(2) Not applicable.

(3) Not applicable

Sec: 4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Services, Technology and Administration.

NO

Sec: 4A Certain information relating to beaches and coasts

Not applicable.

Sec: 4B Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Not applicable.

Sec: 5 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*:
NO

Sec: 6 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

a) Division 2 of Part 3 of the *Roads Act 1993*:
Not affected by road widening

b) Any environmental planning instrument:
NO

c) Any resolution of the council:
NO

Sec. 7 Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:
a) Adopted by the council, or
b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of :-

Land slip:
NO

Bushfire:
See Section 11.

Tidal inundation:
NO

Subsidence:
NO

Acid Sulphate soils:
NO

Sec. 7A Flood related development controls information

1) Whether or not development on that land or part of the land for the purposes of swelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
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Words and expressions in this clause have the same meanings as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*.

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Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).
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If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project

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Sec: 17 Site compatibility certificates and conditions for affordable rental housing

Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land:
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c) That the land to which the certificate relates is subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
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NO

e) That the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.
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Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 149 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.

Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009.

The NSW Infrastructure Coordinator General has issued an Order under Section 23 and an Authorisation under Section 24 of the Nation Building an d Jobs Plan (State Infrastructure Delivery) Act 2009 for the carrying out of development being construction of a hall and covered outdoor learning area, tree removal, landscaping and associated site works. The Order and Authorisation may exempt the above project from complying with certain development control legislation. For further details please contact the Nation Building and Jobs Plan Taskforce on telephone number 9226 2520.

For further information, please contact the Strategic Planning Department on 9911 3612.

Part 5:
ADDITIONAL INFORMATION PROVIDED UNDER SECTION 149(5) OF THE ACT

The instruments and the plans should be examined in relation to the specific restrictions which may apply to any development which may be proposed.

The land is subject to a Tree Preservation Order, details of which are available at Council's Customer Service Centre.

The Register of Consents may be examined at Council's Customer Service Centre for particulars relating to development consents which may have been issued for the use or development of the land.

Enquiries regarding Arterial Road Reservations and Regional Open Space should be directed to the Roads and Traffic Authority and Department of Planning respectively.

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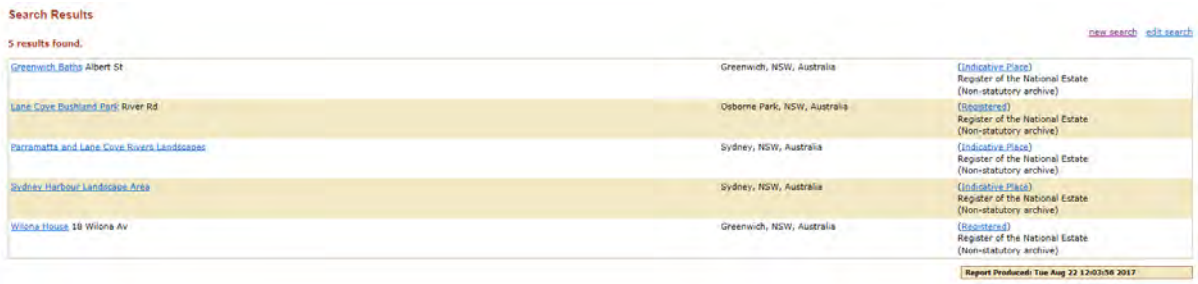
For more information, please contact the Strategic Planning Department on 9911 3555

Appendix H Heritage Records



Search Results

5 results found.

new search edit search

Greenwich Baths Albert St	Greenwich, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Lane Cove Bushland Park River Rd	Osborne Park, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)
Parramatta and Lane Cove Rivers Landscapes	Sydney, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Sydney Harbour Landscape Area	Sydney, NSW, Australia	(Indicative Place) Register of the National Estate (Non-statutory archive)
Wilona House 18 Wilona Av	Greenwich, NSW, Australia	(Registered) Register of the National Estate (Non-statutory archive)

Report Produced: Tue Aug 22 12:03:56 2017

Section 1. Aboriginal Places listed under the National Parks and Wildlife Act.

Your search did not return any matching results.

Section 2. Items listed under the NSW Heritage Act.

Your search returned 2 records.

Item name ▲	Address	Suburb	LGA	SHR
Pallister	95 River Road	Greenwich	Lane Cove	00574
Railway electricity tunnel under Sydney Harbour		Birchgrove / Greenwich	Leichhardt	01231

Section 3. Items listed by Local Government and State Agencies.

Your search returned 121 records.

Item name ▲	Address	Suburb	LGA	Information source
Balmain to Greenwich Tunnel, including docking facilities and services buildings	Long Nose Point (from)	Balmain	Leichhardt	GAZ
Banksia (former name)	7 Gore Street	Greenwich	Lane Cove	LGOV
Bay Street Wharf	Bay Street	Greenwich	Lane Cove	LGOV
Bay Street, Greenwich Ferry Wharf Site	Bay Street	Greenwich	Lane Cove	SGOV
Bedford and Florence	73-75 Carlotta Street	Greenwich	Lane Cove	LGOV
Blythswood	41 George Street	Greenwich	Lane Cove	LGOV
Boat sheds and slips	O'Connell Street	Greenwich	Lane Cove	GAZ
Bond Store (Former), Quarry, Wharf, seawall	O'Connell Street - Bond Reserve	Greenwich	Lane Cove	LGOV
Buena Vista	23 Mitchell Street	Greenwich	Lane Cove	LGOV
Electricity tunnel	Manns Point Reserve (foreshore of)	Greenwich	Lane Cove	GAZ

Federation Dwelling	39 George Street	Greenwich	Lane Cove	LGOV
Fells Shale Oil Refinery	124 Gother Avenue	Greenwich	Lane Cove	LGOV
Glenwood Nursing Home	34-40 Greenwich Road	Greenwich	Lane Cove	LGOV
Greendale	70 Greenwich Road	Greenwich	Lane Cove	LGOV
Greenwich 12' Flying Squadron	Bay Street	Greenwich	Lane Cove	LGOV
Greenwich Baths	Albert Street, Parramatta River	Greenwich	Lane Cove	LGOV
Greenwich Conservation Area	Greenwich Peninsula South	Greenwich	Lane Cove	LGOV
Greenwich House	21 George Street	Greenwich	Lane Cove	LGOV
Greenwich Infants School	72A Greenwich Road	Greenwich	Lane Cove	LGOV
Greenwich Point Ferry Wharf Site	Mitchell Street	Greenwich	Lane Cove	SGOV
Greenwich Point Wharf	Serpentine Road	Greenwich	Lane Cove	LGOV
Greenwich Uniting Church	9 Carlotta Street	Greenwich	Lane Cove	LGOV
Hazelhurst	90 River Road	Greenwich	Lane Cove	LGOV
House	92 River Road	Greenwich	Lane Cove	LGOV
House	125 Greenwich Road	Greenwich	Lane Cove	LGOV
House	12 St. Lawrence Street	Greenwich	Lane Cove	LGOV

House	11 Robertson Street	Greenwich	Lane Cove	LGOV
House	8 Mitchell Street	Greenwich	Lane Cove	LGOV
House	24 St. Lawrence Street	Greenwich	Lane Cove	LGOV
House	7 Mitchell Street (18 Wallace Street)	Greenwich	Lane Cove	LGOV
House	12 Carlotta Street	Greenwich	Lane Cove	LGOV
House	13 Carlotta Street	Greenwich	Lane Cove	LGOV
House	32 Carlotta Street	Greenwich	Lane Cove	LGOV
House	2 Chisholm Street	Greenwich	Lane Cove	LGOV
House	13 Chisholm Street	Greenwich	Lane Cove	LGOV
House	5 Coolabah Avenue	Greenwich	Lane Cove	LGOV
House	4 Evelyn Street	Greenwich	Lane Cove	LGOV
House	2 Ford Street	Greenwich	Lane Cove	LGOV
House	8 Bellevue Avenue	Greenwich	Lane Cove	LGOV
House	14 Bellevue Avenue	Greenwich	Lane Cove	LGOV
House	10 Anglo Road	Greenwich	Lane Cove	LGOV

House	100 Greenwich Road	Greenwich	Lane Cove	LGOV
House	1 Gore Street	Greenwich	Lane Cove	LGOV
House	2 Victoria Street	Greenwich	Lane Cove	LGOV
House	3 Victoria Street	Greenwich	Lane Cove	LGOV
House	10 Victoria Street	Greenwich	Lane Cove	LGOV
House	6-8 Evelyn Street	Greenwich	Lane Cove	LGOV
House	129 Greenwich Road	Greenwich	Lane Cove	LGOV
House	5 Park Road	Greenwich	Lane Cove	LGOV
House	7 Park Road	Greenwich	Lane Cove	LGOV
House	2 Evelyn Street	Greenwich	Lane Cove	LGOV
House	10 George Street	Greenwich	Lane Cove	LGOV
House	18 George Street	Greenwich	Lane Cove	LGOV
House	35 Greenwich Road	Greenwich	Lane Cove	LGOV
House	45 Greenwich Road	Greenwich	Lane Cove	LGOV
House	82 Greenwich Road	Greenwich	Lane Cove	LGOV
House	5 O'Connell Street	Greenwich	Lane Cove	LGOV

House	9 Richard Street	Greenwich	Lane Cove	LGOV
House	28 Upper Serpentine Road	Greenwich	Lane Cove	LGOV
House	12 Victoria Street	Greenwich	Lane Cove	LGOV
House	14 Victoria Street	Greenwich	Lane Cove	LGOV
House	2 Wallace Street	Greenwich	Lane Cove	LGOV
House	2 Anglo Road	Greenwich	Lane Cove	LGOV
House	4 Balfour Street	Greenwich	Lane Cove	LGOV
House	8 Balfour Street	Greenwich	Lane Cove	LGOV
House	2 Carlotta Street	Greenwich	Lane Cove	LGOV
House	79 Carlotta Street	Greenwich	Lane Cove	LGOV
House	34 Chisholm Street	Greenwich	Lane Cove	LGOV
House	45 Carlotta Street	Greenwich	Lane Cove	LGOV
House	50 Carlotta Street	Greenwich	Lane Cove	LGOV
House	8 Eastview Street	Greenwich	Lane Cove	LGOV
House	18 Mitchell Street	Greenwich	Lane Cove	LGOV

House	10 Robertson Street	Greenwich	Lane Cove	LGOV
House	12 Anglo Road	Greenwich	Lane Cove	LGOV
House	14 Anglo Road	Greenwich	Lane Cove	LGOV
House	16 Kingslangley Road	Greenwich	Lane Cove	LGOV
House	143 Greenwich Road	Greenwich	Lane Cove	LGOV
House	153 Greenwich Road	Greenwich	Lane Cove	LGOV
House	163 Greenwich Road	Greenwich	Lane Cove	LGOV
House	19 King William Street	Greenwich	Lane Cove	LGOV
House and Garage	20 Wilona Avenue	Greenwich	Lane Cove	LGOV
House and Mature Trees	11 Mitchell Street	Greenwich	Lane Cove	LGOV
House and Mature Trees	13 Mitchell Street	Greenwich	Lane Cove	LGOV
House and Mature Trees	15 Mitchell Street	Greenwich	Lane Cove	LGOV
House and Mature Trees	17 Mitchell Street	Greenwich	Lane Cove	LGOV
House and Mature Trees	19 Mitchell Street	Greenwich	Lane Cove	LGOV
Houses	36, 38, 42, 44, 45, 46 , 47, 48 King William Street	Greenwich	Lane Cove	LGOV

Houses	48, 50, 52 Chisholm Street	Greenwich	Lane Cove	LGOV
Houses	19-21 Glenview Street	Greenwich	Lane Cove	LGOV
Houses	13 - 15 Kingslangley Road	Greenwich	Lane Cove	LGOV
Houses	1-3 Hinkler Street	Greenwich	Lane Cove	LGOV
Houses	111-113 Greenwich Road	Greenwich	Lane Cove	LGOV
Houses - Gore Street Precinct	1, 3, 5, 7, 9 Gore Street	Greenwich	Lane Cove	LGOV
Ione	9 Gore Street	Greenwich	Lane Cove	LGOV
John Taylor Memorial Church	86A Greenwich Road	Greenwich	Lane Cove	LGOV
Mandalay	2 - 4 Ulonga Avenue	Greenwich	Lane Cove	LGOV
Marathon	7 Carlotta Street	Greenwich	Lane Cove	LGOV
Pallister	95 River Road	Greenwich	Lane Cove	LGOV
Railway Electricity Tunnel		Greenwich Point To Birchgrove	Lane Cove	LGOV
Remains of Greenwich Point Wharf	21 George Street	Greenwich	Lane Cove	GAZ
Riverside	22 Wallace Street	Greenwich	Lane Cove	LGOV
Rockleigh	11 Gore Street	Greenwich	Lane Cove	LGOV

Rockleigh	2 Richard Street (Also Known As 2 Richard Street)	Greenwich	Lane Cove	LGOV
Sandringham	3 Park Road	Greenwich	Lane Cove	LGOV
Sandstone Swimming Pool (Assoc With Pallister, 95 River Road)	51 Gore Street	Greenwich	Lane Cove	LGOV
Semi-detached Dwellings	5-7 St. Lawrence Street	Greenwich	Lane Cove	LGOV
Shell Installation	124 Greenwich Road	Greenwich	Lane Cove	LGOV
St. Giles Anglican Church	6-12 Greendale Street	Greenwich	Lane Cove	LGOV
Stone Embankment Walls	Gore Street	Greenwich	Lane Cove	LGOV
Stone Sea Wall	40 Serpentine Road	Greenwich	Lane Cove	LGOV
Stone Steps To Rear of House	36 Serpentine Road	Greenwich	Lane Cove	LGOV
Streetscape Elements (Drain, Walls, Rocky Outcrop, Steps)	Bent Street	Greenwich	Lane Cove	LGOV
Streetscape Elements (Sandstone Gutters, Steps, Outcrops and Kerbing)	Greenwich Road	Greenwich	Lane Cove	LGOV
Streetscape Elements (Sandstone Steps, Outcrops, Kerbing and Retaining Wall)	Greenwich Point (Various Streets)	Greenwich Point	Lane Cove	LGOV
Terraces	16-18 and 20-22 St. Lawrence Street	Greenwich	Lane Cove	LGOV
Tewhare	5 Carlotta Street	Greenwich	Lane Cove	LGOV
Waterview	6 Ford Street	Greenwich	Lane Cove	LGOV
Wilds Pass Archaeological Area (C 1820)	Wild's Pass, Cookbundoon Range, Off Tarlo River Road	Greenwich Park	Goulburn Mulwaree	LGOV
Wilona	18 Wilona Avenue	Greenwich	Lane Cove	LGOV
Wyncourt	14 - 16 Ford Street	Greenwich	Lane Cove	LGOV

Appendix I Calibration & Decontamination Records

Field Equipment Calibration and Decontamination

JBS&G

PROJECT NAME: ESA 3 Schools.	PROJECT NO: 53033
FIELD DATES: 16/8/17	FIELD STAFF: SG

CALIBRATION SUMMARY	
EQUIPMENT:	PID
CALIBRATION STANDARD:	Isobutylene (100ppm)

DATE	TIME	READING (ppm$_v$)	COMMENTS
16/8/17	7:45am	100ppm	Cal ok (isobutylene)
		0ppm	Cal ok.
17/8/17	07:30	100.00 ppm	"
		0.0 ppm	"

DECONTAMINATION SUMMARY

EQUIPMENT: N/A (Drill rig)

1. Was the equipment decontaminated appropriately prior to sampling at each location?	Y	N	(NA)
2. Was excess soil removed by scraping, brushing or wiping with disposable towels?	Y	N	(NA)
3. Was the equipment contaminated with grease, tar or similar material? If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y Y	N N	(NA)
4. Was phosphate-free detergent used to wash the equipment?	Y	N	(NA)
5. Was the equipment rinsed with clean water?	Y	N	(NA)
6. Was the equipment then rinsed with deionised water?	Y	N	(NA)
7. Were all sample containers cleaned and acid or solvent washed prior to sample collection?	Y	N	(NA)

WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS.

Fresh nitrile gloves were used for each sample collection

Appendix J QA/QC Results

			Num Results	Holding Times (days)				Lab Control Samples			Method and Storage Blanks			Laboratory Duplicates			Surrogates			Matrix,Trip and Compound Spikes			Field,Rinsate and Trip Blanks			Field Duplicates		
Chem_Group	ChemName	Range	Non QA (Normal + Composite)	Volatility Group	Sample to Extraction	Sample to Analysis	Acceptable	Recovery %	Num Reported	Acceptable	Range	Num Reported	Acceptable	Max RPD > EQL x 1	Num Reported	Acceptable	Recovery %	Num Reported	Acceptable	Recovery %	Num Reported	Acceptable	Range	Num Reported	Acceptable	Max RPD > EQL x 1	Num Reported	Acceptable
Asbestos	Approx. Sample Mass		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Asbestos from ACM in Soil		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Asbestos from FA & AF in Soil		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
Asbestos	Asbestos Reported Result		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
Asbestos	Mass ACM		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Mass AF		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Mass Asbestos in ACM		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Mass Asbestos in AF		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Mass Asbestos in FA		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Mass Asbestos in FA & AF		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Mass FA		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
Asbestos - Trace Analysis	ACM - Comment		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	AF - Comment		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	FA - Comment		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Organic Fibres - Comment		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Respirable Fibres - Comment		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
	Synthetic Fibres - Comment		14	Other	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			0	N
BTEX	Benzene	0.1 mg/kg	14	VOC	3 to 5	7 to 8	Y	76 to 106	2	Y	ND	2	Y		1	Y		0		79 to 101	2	Y		0			2	Y
	Ethylbenzene	0.1 mg/kg	14	VOC	3 to 5	7 to 8	Y	88 to 127	2	Y	ND	2	Y		0	N		0		96 to 119	2	Y		0			2	Y
	Toluene	0.1 mg/kg	14	VOC	3 to 5	7 to 8	Y	92 to 126	2	Y	ND	2	Y		0	N		0		84 to 96	2	Y		0			2	Y
	Xylene (m & p)	0.2 mg/kg	14	VOC	3 to 5	7 to 8	Y	89 to 127	2	Y	ND	2	Y		0	N		0		97 to 118	2	Y		0			2	Y
	Xylene (o)	0.1 mg/kg	14	VOC	3 to 5	7 to 8	Y		0		ND	2	Y		0	N		0		98 to 112	2	Y		0			2	Y
	Xylene (Total)	0.3 mg/kg	14	VOC	3 to 5	7 to 8	Y	88 to 127	2	Y	ND	2	Y		0	N		0		97 to 116	2	Y		0			2	Y
Chlorinated Benzenes	Hexachlorobenzene	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	90 to 102	2	Y	ND	2	Y		0	N		0		94 to 103	2	Y		0			2	Y
EPA VIC - IWRG621	Organochlorine Pesticides EPAVic	0.1 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
	Other Organochlorine Pesticides EPAVic	0.1 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
Ionic Balance	Cation Exchange Capacity	0.05 meq/100g	14	Other	6 to 7	7 to 8	Y		0		ND	2	Y		0	N		0			0			0			0	N
	EC 1:5 soil:water	10 µS/cm	14	Other	3 to 5	7 to 8	Y		0			0		9	2	Y		0			0			0			0	N
	pH (Leachate fluid)	0.1 PH UNITS	5	SVOC	5	7	Y		0			0			0	N		0			0			0			0	N
	pH (TCLP - HCl addition)	0.1 ph Units	5	other	4	7	Y		0			0			0	N		0			0			0			0	N
	pH (TCLP - initial)	0.1 ph Units	5	other	5	7	Y		0			0			0	N		0			0			0			0	N
	pH (TCLP - off)	0.1 ph Units	5	other	5	7	Y		0			0			0	N		0			0			0			0	N
	pH 1:5 soil:water	0.1 ph Units	14	Other	3 to 5	7 to 8	Y		0			0		1	2	Y		0			0			0			0	N
Metals & Metalloids	Arsenic (Total)	2 mg/kg	19	Other	3 to 5	7 to 8	Y	97 to 105	2	Y	ND	3	Y		1	Y		0		69 to 104	3	N		0		8	2	Y
	Cadmium	0.4 mg/kg	19	Other	3 to 5	7 to 8	Y	99 to 106	2	Y	ND	3	Y		1	Y		0		85 to 108	3	Y		0			2	Y
	Chromium (Total)	5 mg/kg	19	Other	3 to 5	7 to 8	Y	103 to 113	2	Y	ND	3	Y		1	Y		0		87 to 103	3	Y		0		59	2	N
	Copper	5 mg/kg	19	Other	3 to 5	7 to 8	Y	105 to 117	2	Y	ND	3	Y		1	Y		0		88 to 107	3	Y		0		26	2	Y
	Lead	5 mg/kg	19	Other	3 to 5	7 to 8	Y	109 to 114	2	Y	ND	3	Y	0	1	Y		0		101 to 301	3	N		0		30	2	Y
	Mercury (Inorganic)	0.1 mg/kg	19	Other	3 to 5	7 to 8	Y	112 to 117	2	Y	ND	3	Y		1	Y		0		101 to 120	3	Y		0			2	Y
	Nickel	5 mg/kg	19	Other	3 to 5	7 to 8	Y	107 to 118	2	Y	ND	3	Y		1	Y		0		95 to 102	3	Y		0		79	2	N
	Zinc	5 mg/kg	19	Other	3 to 5	7 to 8	Y	106 to 115	2	Y	ND	3	Y	0	1	Y		0		13 to 111	3	N		0		14	2	Y
Organochlorine Pesticides	4,4-DDE	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	88 to 99	2	Y	ND	2	Y		1	Y		0		90 to 108	2	Y		0			2	Y
	Aldrin	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	90 to 103	2	Y	ND	2	Y		1	Y		0		94 to 101	2	Y		0			2	Y
	Aldrin + Dieldrin (Sum of Total)	0.05 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
	alpha-BHC	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	92 to 105	2	Y	ND	2	Y		1	Y		0		96 to 103	2	Y		0			2	Y
	beta-BHC	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	85 to 101	2	Y	ND	2	Y		1	Y		0		91 to 97	2	Y		0			2	Y
	Chlordane	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			2	Y
	DDD	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	101 to 113	2	Y	ND	2	Y		1	Y		0		93 to 128	2	Y		0			2	Y
	DDT	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	70 to 81	2	N	ND	2	Y		1	Y		0		79 to 89	2	Y		0			2	Y
	DDT+DDE+DDD (Sum of Total)	0.05 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
	delta-BHC	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	91 to 117	2	Y	ND	2	Y		1	Y		0		105 to 106	2	Y		0			2	Y
	Dieldrin	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	90 to 97	2	Y	ND	2	Y		1	Y		0		89 to 106	2	Y		0			2	Y
	Endosulfan alpha	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	91 to 97	2	Y	ND	2	Y		0	N		0		87 to 105	2	Y		0			2	Y
	Endosulfan beta	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	89 to 95	2	Y	ND	2	Y		1	Y		0		91 to 109	2	Y		0			2	Y
	Endosulfan sulphate	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	88 to 94	2	Y	ND	2	Y		1	Y		0		92 to 111	2	Y		0			2	Y
	Endrin	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	75 to 98	2	Y	ND	2	Y		1	Y		0		90 to 96	2	Y		0			2	Y
	Endrin aldehyde	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	89 to 90	2	Y	ND	2	Y		1	Y		0		82 to 116	2	Y		0			2	Y
	Endrin ketone	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	77 to 77	2	Y	ND	2	Y		1	Y		0		85 to 111	2	Y		0			2	Y
	Heptachlor	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	73 to 87	2	Y	ND	2	Y		1	Y		0		92 to 95	2	Y		0			2	Y
	Heptachlor Epoxide	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	90 to 99	2	Y	ND	2	Y		1	Y		0		90 to 104	2	Y		0			2	Y
	Lindane	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	96 to 109	2	Y	ND	2	Y		1	Y		0		101 to 111	2	Y		0			2	Y
	Methoxychlor	0.05 mg/kg	14	SVOC	3 to 5	7 to 8	Y	72 to 82	2	Y	ND	2	Y		1	Y		0		79 to 100	2	Y		0			2	Y
	Toxaphene	1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			2	Y
Other	% Clay	1 %	14	Other	5 to 6	7 to 8	Y	86 to 96	2	Y	ND	2	Y	19	1	Y		0			0			0			0	N
	% Moisture 103oC	1 %	14	Other	0 to 1	7 to 8	Y		0			0		8	1	Y		0			0			0		35	2	Y
	Total Organic Carbon		14	Other	5 to 6	7 to 8	Y	96 to 100	2	Y	ND	2	Y	12	1	Y		0			0			0			0	N
Polychlorinated Biphenyls	Aroclor 1016	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			1	Y
	Aroclor 1221	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			1	Y
	Aroclor 1232	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			1	Y
	Aroclor 1242	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			1	Y
	Aroclor 1248	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			1	Y
	Aroclor 1254	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		1	Y		0			0			0			1	Y
	Aroclor 1260	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y	71 to 89	2	Y	ND	2	Y		1	Y		0		84 to 84	2	Y		0			1	Y
	PCBs (Total)	0.1 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		0	N		0			0			0			1	Y
Polycyclic Aromatic Hydrocarbons	Acenaphthene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	87 to 97	2	Y	ND	2	Y		1	Y		0		102 to 109	3	Y		0			2	Y
	Acenaphthylene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	101 to 107	2	Y	ND	2	Y		1	Y		0		116 to 122	3	Y		0			2	Y
	Anthracene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	76 to 104	2	Y	ND	2	Y		1	Y		0		77 to 125	3	Y		0			2	Y
	Benz(a)anthracene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	81 to 104	2	Y	ND	2	Y		1	Y		0		97 to 120	3	Y		0			2	Y
	Benzo(a)pyrene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	90 to 105	2	Y	ND	2	Y		1	Y		0		102 to 129	3	Y		0			2	Y
	Benzo(a)pyrene TEQ (lower bound*	0.5 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
	Benzo(a)pyrene TEQ (medium bound*	0.5 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0		0	2	Y
	Benzo(a)pyrene TEQ (upper bound*	0.5 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0		0	2	Y
	Benzo(b,j)fluoranthene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	82 to 107	2	Y	ND	2	Y		1	Y		0		99 to 115	3	Y		0			2	Y
	Benzo(g,h,i)perylene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	84 to 93	2	Y	ND	2	Y		1	Y		0		109 to 128	3	Y		0			2	Y
	Benzo(k)fluoranthene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	104 to 110	2	Y	ND	2	Y		1	Y		0		101 to 112	3	Y		0			2	Y
	Chrysene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	86 to 101	2	Y	ND	2	Y		1	Y		0		96 to 129	3	Y		0			2	Y
	Dibenz(a,h)anthracene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	76 to 91	2	Y	ND	2	Y		1	Y		0		91 to 127	3	Y		0			2	Y
	Fluoranthene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	99 to 100	2	Y	ND	2	Y		1	Y		0		106 to 128	3	Y		0			2	Y
	Fluorene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	101 to 103	2	Y	ND	2	Y		1	Y		0		114 to 117	3	Y		0			2	Y
	Indeno(1,2,3-c,d)pyrene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	78 to 89	2	Y	ND	2	Y		1	Y		0		92 to 126	3	Y		0			2	Y
	Naphthalene	0.5 mg/kg	33	VOC	3 to 5	7 to 8	Y	81 to 97	4	Y	ND	4	Y		1	Y		0		94 to 126	5	Y		0			4	Y
	PAHs (Total)	0.5 mg/kg	19	SVOC	0 to 4	7 to 8	Y		0			0			0	N		0			0			0			2	Y
	Phenanthrene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	71 to 100	2	Y	ND	2	Y		1	Y		0		75 to 110	3	Y		0			2	Y
	Pyrene	0.5 mg/kg	19	SVOC	3 to 5	7 to 8	Y	98 to 99	2	Y	ND	2	Y		1	Y		0		107 to 128	3	Y		0			2	Y
Surrogate	4-Terphenyl-d14		0	SVOC			Y		0			0			0	N	105 to 149	21	N		0			0			0	N
	Surrogate 2-fluorobiphenyl		0	SVOC			Y		0			0			0	N	78 to 136	21	N		0			0			0	N
	Surrogate 4-BFB		0	VOC			Y		0			0			0	N	63 to 136	16	N		0			0			0	N
	Surrogate Dibutylchlorendate		0	SVOC			Y		0			0			0	N	63 to 139	16	N		0			0			0	N
	Surrogate TCMX		0	SVOC			Y		0			0			0	N	50 to 128	16	N		0			0			0	N
TPHs (NEPC 1999)	C10-C14 Fraction	20 mg/kg	14	SVOC	3 to 5	7 to 8	Y	87 to 90	2	Y	ND	2	Y		0	N		0		86 to 94	2	Y		0			2	Y
	C10-C36 Fraction (Total)	50 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0		89	2	N
	C15-C28 Fraction	50 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		0	N		0			0			0			2	Y
	C29-C36 Fraction	50 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		0	N		0			0			0		89	2	N
	C6-C9 Fraction	20 mg/kg	14	VOC	3 to 5	7 to 8	Y	123 to 124	2	Y	ND	2	Y		1	Y		0		116 to 128	2	Y		0			2	Y
TRHs (NEPC 2013)	>C10-C16 Fraction	50 mg/kg	14	SVOC	3 to 5	7 to 8	Y	82 to 89	2	Y	ND	2	Y		0	N		0		80 to 99	2	Y		0			2	Y
	>C10-C16 less Naphthalene (F2)	50 mg/kg	14	SVOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
	>C16-C34 Fraction	100 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		0	N		0			0			0		46	2	Y
	>C34-C40 Fraction	100 mg/kg	14	SVOC	3 to 5	7 to 8	Y		0		ND	2	Y		0	N		0			0			0			2	Y
	C6-C10 Fraction	20 mg/kg	14	VOC	3 to 5	7 to 8	Y	118 to 122	2	Y	ND	2	Y		1	Y		0		113 to 126	2	Y		0			2	Y
	C6-C10 less BTEX (F1)	20 mg/kg	14	VOC	0 to 1	7 to 8	Y		0			0			0	N		0			0			0			2	Y
BTEX	Benzene		0	VOC	0 to 1	7 to 8	Y	91 to 106	2	Y	ND	2	Y		0	N		0		82 to 100	3	Y	ND	3	Y		0	N
	Ethylbenzene		0	VOC	0 to 1	7 to 8	Y	89 to 101	2	Y	ND	2	Y		0	N		0		79 to 110	3	Y	ND	3	Y		0	N
	Toluene		0	VOC	0 to 1	7 to 8	Y	89 to 108	2	Y	ND	2	Y		0	N		0		80 to 110	3	Y	ND	3	Y		0	N
	Xylene (m & p)		0	VOC	0 to 1	7 to 8	Y	88 to 113	2	Y	ND	2	Y		0	N		0		80 to 110	3	Y	ND	3	Y		0	N
	Xylene (o)		0	VOC	0 to 1	7 to 8	Y	88 to 88	1	Y	ND	2	Y		0	N		0		81 to 110	3	Y	ND	3	Y		0	N
	Xylene (Total)		0	VOC	0 to 1	7 to 8	Y	88 to 110	2	Y	ND	2	Y		0	N		0		80 to 110	3	Y	ND	3	Y		0	N
Chlorinated Benzenes	Hexachlorobenzene		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
EPA VIC - IWRG621	Organochlorine Pesticides EPAVic		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Other Organochlorine Pesticides EPAVic		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
Metals & Metalloids	Arsenic (Total)		0	Other	1	7	Y	103 to 103	1	Y	ND	1	Y		0	N		0		109 to 109	1	Y	ND	1	Y		0	N
	Cadmium		0	Other	1	7	Y	99 to 99	1	Y	ND	1	Y		0	N		0		97 to 97	1	Y	ND	1	Y		0	N
	Chromium (Total)		0	Other	1	7	Y	100 to 100	1	Y	ND	1	Y		0	N		0		98 to 98	1	Y	ND	1	Y		0	N
	Copper		0	Other	1	7	Y	96 to 96	1	Y	ND	1	Y		0	N		0		97 to 97	1	Y	ND	1	Y		0	N
	Lead		0	Other	1	7	Y	104 to 104	1	Y	ND	1	Y		0	N		0		105 to 105	1	Y	ND	1	Y		0	N
	Mercury (Inorganic)		0	Other	1	7	Y	96 to 96	1	Y	ND	1	Y		0	N		0		95 to 95	1	Y	ND	1	Y		0	N
	Nickel		0	Other	1	7	Y	97 to 97	1	Y	ND	1	Y		0	N		0		98 to 98	1	Y	ND	1	Y		0	N
	Zinc		0	Other	1	7	Y	102 to 102	1	Y	ND	1	Y		0	N		0		106 to 106	1	Y	ND	1	Y		0	N
Organochlorine Pesticides	4,4-DDE		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Aldrin		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Aldrin + Dieldrin (Sum of Total)		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	alpha-BHC		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	beta-BHC		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Chlordane		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	DDD		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	DDT		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	DDT+DDE+DDD (Sum of Total)		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	delta-BHC		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Dieldrin		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Endosulfan alpha		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Endosulfan beta		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Endosulfan sulphate		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Endrin		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Endrin aldehyde		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Endrin ketone		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Heptachlor		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Heptachlor Epoxide		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Lindane		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Methoxychlor		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Toxaphene		0	SVOC	5	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
Polycyclic Aromatic Hydrocarbons	Acenaphthene		0	SVOC	5	7	Y	82 to 82	1	Y	ND	1	Y		0	N		0		102 to 102	1	Y	ND	1	Y		0	N
	Acenaphthylene		0	SVOC	5	7	Y	99 to 99	1	Y	ND	1	Y		0	N		0		115 to 115	1	Y	ND	1	Y		0	N
	Anthracene		0	SVOC	5	7	Y	85 to 85	1	Y	ND	1	Y		0	N		0		111 to 111	1	Y	ND	1	Y		0	N
	Benz(a)anthracene		0	SVOC	5	7	Y	109 to 109	1	Y	ND	1	Y		0	N		0		123 to 123	1	Y	ND	1	Y		0	N
	Benzo(a)pyrene		0	SVOC	5	7	Y	115 to 115	1	Y	ND	1	Y		0	N		0		104 to 104	1	Y	ND	1	Y		0	N
	Benzo(b,j)fluoranthene		0	SVOC	5	7	Y	96 to 96	1	Y	ND	1	Y		0	N		0		110 to 110	1	Y	ND	1	Y		0	N
	Benzo(g,h,i)perylene		0	SVOC	5	7	Y	107 to 107	1	Y	ND	1	Y		0	N		0		126 to 126	1	Y	ND	1	Y		0	N
	Benzo(k)fluoranthene		0	SVOC	5	7	Y	96 to 96	1	Y	ND	1	Y		0	N		0		111 to 111	1	Y	ND	1	Y		0	N
	Chrysene		0	SVOC	5	7	Y	107 to 107	1	Y	ND	1	Y		0	N		0		122 to 122	1	Y	ND	1	Y		0	N
	Dibenz(a,h)anthracene		0	SVOC	5	7	Y	113 to 113	1	Y	ND	1	Y		0	N		0		124 to 124	1	Y	ND	1	Y		0	N
	Fluoranthene		0	SVOC	5	7	Y	103 to 103	1	Y	ND	1	Y		0	N		0		121 to 121	1	Y	ND	1	Y		0	N
	Fluorene		0	SVOC	5	7	Y	98 to 98	1	Y	ND	1	Y		0	N		0		110 to 110	1	Y	ND	1	Y		0	N
	Indeno(1,2,3-c,d)pyrene		0	SVOC	5	7	Y	110 to 110	1	Y	ND	1	Y		0	N		0		130 to 130	1	N	ND	1	Y		0	N
	Naphthalene		0	VOC	0 to 5	7 to 8	Y	82 to 92	3	Y	ND	3	Y		0	N		0		84 to 120	4	Y	ND	4	Y		0	N
	PAHs (Total)		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	Phenanthrene		0	SVOC	5	7	Y	91 to 91	1	Y	ND	1	Y		0	N		0		106 to 106	1	Y	ND	1	Y		0	N
	Pyrene		0	SVOC	5	7	Y	102 to 102	1	Y	ND	1	Y		0	N		0		120 to 120	1	Y	ND	1	Y		0	N
Surrogate	4-Terphenyl-d14		0	SVOC			Y		0			0			0	N	103 to 103	1	Y		0			0			0	N
	Surrogate 2-fluorobiphenyl		0	SVOC			Y		0			0			0	N	89 to 89	1	Y		0			0			0	N
	Surrogate 4-BFB		0	VOC			Y		0			0			0	N	93 to 118	5	Y		0			0			0	N
	Surrogate Dibutylchlorendate		0	SVOC			Y		0			0			0	N	102 to 102	1	Y		0			0			0	N
	Surrogate TCMX		0	SVOC			Y		0			0			0	N	86 to 86	1	Y		0			0			0	N
TPHs (NEPC 1999)	C10-C14 Fraction		0	SVOC	5	7	Y	84 to 84	1	Y	ND	1	Y		0	N		0		74 to 74	1	Y	ND	1	Y		0	N
	C10-C36 Fraction (Total)		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	C15-C28 Fraction		0	SVOC	5	7	Y		0		ND	1	Y		0	N		0			0		ND	1	Y		0	N
	C29-C36 Fraction		0	SVOC	5	7	Y		0		ND	1	Y		0	N		0			0		ND	1	Y		0	N
	C6-C9 Fraction		0	VOC	0 to 1	7 to 8	Y	106 to 110	2	Y	ND	2	Y		0	N		0		71 to 92	3	Y	ND	3	Y		0	N
TRHs (NEPC 2013)	>C10-C16 Fraction		0	SVOC	5	7	Y	90 to 90	1	Y	ND	1	Y		0	N		0		74 to 74	1	Y	ND	1	Y		0	N
	>C10-C16 less Naphthalene (F2)		0	SVOC	1	7	Y		0			0			0	N		0			0		ND	1	Y		0	N
	>C16-C34 Fraction		0	SVOC	5	7	Y		0		ND	1	Y		0	N		0			0		ND	1	Y		0	N
	>C34-C40 Fraction		0	SVOC	5	7	Y		0		ND	1	Y		0	N		0			0		ND	1	Y		0	N
	C6-C10 Fraction		0	VOC	0 to 1	7 to 8	Y	102 to 109	2	Y	ND	2	Y		0	N		0		73 to 84	3	Y	ND	3	Y		0	N
	C6-C10 less BTEX (F1)		0	VOC	0 to 1	7 to 8	Y		0			0			0	N		0			0		ND	3	Y		0	N

Appendix K Laboratory Documentation

09180

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 52885
PROJECT NAME: ~~Bonnyrigg~~ ESA 3 Schools - Greenwich
DATE NEEDED BY: STD TAT
LABORATORY BATCH NO.:
SAMPLERS: SG
QC LEVEL: NEPM (2013)
PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688
SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) shaimows@jbsg.com.au; (3) sgray@jbsg.com.au nwells@jbsg.com.au
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	JB2A	JB2	CEC	PH	% Clay	TOC	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH01 0.05-0.15	SOIL	16/8		Bag + Jar ice		X		X	X	X	X			558877
↓ 0.2-0.3														
BH02 0.1-0.2						X		X	X	X	X			
↓ 0.5-0.6														
BH03 0.05-0.15						X		X	X	X	X			
↓ 0.2-0.3														
BH04 0.1-0.2						X		X	X	X	X			
↓ 0.5-0.6														
↓ 0.6-0.7														
BH05 0-0.1						X		X	X	X	X			
BH06 0.1-0.2						X		X	X	X	X			
↓ 0.6-0.7														
BH07 0.1-0.2						X		X	X	X	X			
BH08 0.1-0.2						X		X	X	X	X			
↓ 0.3-0.4														
↓ 0.8-0.9														
BH09 0.1-0.2						X		X	X	X	X			
0.4-0.5														
QA20170816							X							

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: SGray DATE: 16/8/17	CONSIGNMENT NOTE NO.	NAME: Rupam 17:00	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 16/08	COOLER TEMP 22.5 C deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

09181

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: ~~EVA~~ 53033	LABORATORY BATCH NO.:
PROJECT NAME: ESA 3 Schools - Greenwich	SAMPLERS: SG
DATE NEEDED BY: STD TAT	QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) Sburrows@jbsg.com.au; (3) sgray@jbsg.com.au nwells@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	TRH/BTEX	PAH	TOC	TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
TB	WATER	24/8		vials + ice		X					
TS	↓	↓		↓		X					
CBR03	SOIL	16/8		Bag + Jar + ice				X			

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: Sgray DATE: 16/8/17	CONSIGNMENT NOTE NO.	NAME: Rupali DATE: 16/08 17:00	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF:	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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Site # 1254 & 14271

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NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Scott Burrows
Project name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 16, 2017 5:00 PM
Eurofins | mgt reference: **558877**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 22.5 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Scott Burrows - SBurrows@jbsg.com.au.

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e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

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Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH01_0.05-0.15	Aug 16, 2017		Soil	S17-Au19518	X	X		X	X	X	X		X
2	BH02_0.1-0.2	Aug 16, 2017		Soil	S17-Au19519	X	X		X	X	X	X		X
3	BH03_0.05-0.15	Aug 16, 2017		Soil	S17-Au19520	X	X		X	X	X	X		X
4	BH04_0.1-0.2	Aug 16, 2017		Soil	S17-Au19521	X	X		X	X	X	X		X
5	BH05_0-0.1	Aug 16, 2017		Soil	S17-Au19522	X	X		X	X	X	X		X
6	BH06_0.1-0.2	Aug 16, 2017		Soil	S17-Au19523	X	X		X	X	X	X		X
7	BH07_0.1-0.2	Aug 16, 2017		Soil	S17-Au19524	X	X		X	X	X	X		X
8	BH08_0.1-0.2	Aug 16, 2017		Soil	S17-Au19525	X	X		X	X	X	X		X

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

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Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
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NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
9	BH09_0.1-0.2	Aug 16, 2017		Soil	S17-Au19526	X	X		X	X	X	X		X
10	QA20170816	Aug 16, 2017		Soil	S17-Au19527						X			X
11	TB	Aug 16, 2017		Water	S17-Au19528								X	
12	TS	Aug 16, 2017		Water	S17-Au19529								X	
13	BH01_0.2-0.3	Aug 16, 2017		Soil	S17-Au19530			X						
14	BH02_0.5-0.6	Aug 16, 2017		Soil	S17-Au19531			X						
15	BH03_0.2-0.3	Aug 16, 2017		Soil	S17-Au19532			X						
16	BH04_0.5-0.6	Aug 16, 2017		Soil	S17-Au19533			X						
17	BH04_0.6-0.7	Aug 16, 2017		Soil	S17-Au19534			X						
18	BH06_0.6-0.7	Aug 16, 2017		Soil	S17-Au19535			X						
19	BH08_0.3-0.4	Aug 16, 2017		Soil	S17-Au19536			X						
20	BH08_0.8-0.9	Aug 16, 2017		Soil	S17-Au19537			X						

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NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
21	BH09_0.4-0.5	Aug 16, 2017		Soil	S17-Au19538			X						
22	CBR03	Aug 16, 2017		Soil	S17-Au19539			X						
Test Counts						9	9	10	9	9	10	9	2	10

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Scott Burrows
Report	558877-AID
Project Name	ESA 3 SCHOOLS - GREENWICH
Project ID	52885
Received Date	Aug 16, 2017
Date Reported	Aug 24, 2017

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS4964 method is around 0.1 g/kg (0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis where required, this is considered to be at the nominal reporting limit of 0.01 % (w / w).The examination of large sample sizes(500 mL is recommended) may improve the likelihood of identifying ACM in the > 2mm fraction.The NEPM screening level of 0.001 % (w / w) asbestos in soil for FA(friable asbestos) and AF(asbestos fines) then applies where they are able to be quantified by gravimetric procedures.This quantitative screening is not generally applicable to FF(free fibres) and results of Trace Analysis are referred. *NOTE: NATA News March 2014, p.7, states in relation to AS4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". Accordingly, NATA Accreditation does not cover the performance of this service (indicated with an asterisk).* *This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended) and the Western Australia Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2009, including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil, June 2011.*

Project Name ESA 3 SCHOOLS - GREENWICH
Project ID 52885
Date Sampled Aug 16, 2017
Report 558877-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BH01_0.05-0.15	17-Au19518	Aug 16, 2017	Approximate Sample 602g Sample consisted of: Various coloured coarse grain sandy soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH02_0.1-0.2	17-Au19519	Aug 16, 2017	Approximate Sample 645g Sample consisted of: Light brown coarse grain sandy soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH03_0.05-0.15	17-Au19520	Aug 16, 2017	Approximate Sample 567g Sample consisted of: Black coarse grain soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH04_0.1-0.2	17-Au19521	Aug 16, 2017	Approximate Sample 677g Sample consisted of: Grey coarse grain soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH05_0-0.1	17-Au19522	Aug 16, 2017	Approximate Sample 656g Sample consisted of: Brown coarse grain sandy soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH06_0.1-0.2	17-Au19523	Aug 16, 2017	Approximate Sample 709g Sample consisted of: Brown coarse grain sandy soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH07_0.1-0.2	17-Au19524	Aug 16, 2017	Approximate Sample 826g Sample consisted of: Brown coarse grain sandy soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH08_0.1-0.2	17-Au19525	Aug 16, 2017	Approximate Sample 636g Sample consisted of: Grey coarse grain soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH09_0.1-0.2	17-Au19526	Aug 16, 2017	Approximate Sample 486g Sample consisted of: Brown coarse grain sandy soil and rocks.	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Perth	Aug 22, 2017	Indefinite

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NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
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Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail	% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271			X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217								X	X
Brisbane Laboratory - NATA Site # 20794	X								
Perth Laboratory - NATA Site # 23736		X							
External Laboratory									

No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID								
1	BH01_0.05-0.15	Aug 16, 2017		Soil	S17-Au19518	X	X		X	X	X	X		X
2	BH02_0.1-0.2	Aug 16, 2017		Soil	S17-Au19519	X	X		X	X	X	X		X
3	BH03_0.05-0.15	Aug 16, 2017		Soil	S17-Au19520	X	X		X	X	X	X		X
4	BH04_0.1-0.2	Aug 16, 2017		Soil	S17-Au19521	X	X		X	X	X	X		X
5	BH05_0-0.1	Aug 16, 2017		Soil	S17-Au19522	X	X		X	X	X	X		X
6	BH06_0.1-0.2	Aug 16, 2017		Soil	S17-Au19523	X	X		X	X	X	X		X
7	BH07_0.1-0.2	Aug 16, 2017		Soil	S17-Au19524	X	X		X	X	X	X		X
8	BH08_0.1-0.2	Aug 16, 2017		Soil	S17-Au19525	X	X		X	X	X	X		X

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Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
9	BH09_0.1-0.2	Aug 16, 2017		Soil	S17-Au19526	X	X		X	X	X	X		X
10	QA20170816	Aug 16, 2017		Soil	S17-Au19527						X			X
11	TB	Aug 16, 2017		Water	S17-Au19528								X	
12	TS	Aug 16, 2017		Water	S17-Au19529								X	
13	BH01_0.2-0.3	Aug 16, 2017		Soil	S17-Au19530			X						
14	BH02_0.5-0.6	Aug 16, 2017		Soil	S17-Au19531			X						
15	BH03_0.2-0.3	Aug 16, 2017		Soil	S17-Au19532			X						
16	BH04_0.5-0.6	Aug 16, 2017		Soil	S17-Au19533			X						
17	BH04_0.6-0.7	Aug 16, 2017		Soil	S17-Au19534			X						
18	BH06_0.6-0.7	Aug 16, 2017		Soil	S17-Au19535			X						
19	BH08_0.3-0.4	Aug 16, 2017		Soil	S17-Au19536			X						
20	BH08_0.8-0.9	Aug 16, 2017		Soil	S17-Au19537			X						

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
21	BH09_0.4-0.5	Aug 16, 2017		Soil	S17-Au19538			X						
22	CBR03	Aug 16, 2017		Soil	S17-Au19539			X						
Test Counts						9	9	10	9	9	10	9	2	10

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Asbestos Counter/Identifier:

Edward Rowley	Asbestos Analyst (WA)

Authorised by:

Matthew Deaves	Senior Analyst-Asbestos (WA)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **558877-S**
Project name ESA 3 SCHOOLS - GREENWICH
Project ID 52885
Received Date Aug 16, 2017

Client Sample ID			**BH01_0.05-0.15**	**BH02_0.1-0.2**	**BH03_0.05-0.15**	**BH04_0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au19518**	**S17-Au19519**	**S17-Au19520**	**S17-Au19521**
Date Sampled			**Aug 16, 2017**	**Aug 16, 2017**	**Aug 16, 2017**	**Aug 16, 2017**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	560	< 50	270	160
TRH C29-C36	50	mg/kg	410	57	1000	330
TRH C10-36 (Total)	50	mg/kg	970	57	1270	490
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	82	82	100	129
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	760	< 100	1100	380
TRH >C34-C40	100	mg/kg	210	< 100	820	370
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	22	< 0.5	1.6	3.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	22	0.6	1.9	3.5
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	22	1.2	2.1	3.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	1.6	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	2.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	12	< 0.5	0.7	1.7
Benzo(a)pyrene	0.5	mg/kg	13	< 0.5	1.3	2.3
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	20	< 0.5	0.8	1.5
Benzo(g.h.i)perylene	0.5	mg/kg	9.5	< 0.5	0.9	1.9
Benzo(k)fluoranthene	0.5	mg/kg	10	< 0.5	0.9	1.3
Chrysene	0.5	mg/kg	12	< 0.5	0.9	1.9
Dibenz(a.h)anthracene	0.5	mg/kg	3.5	< 0.5	< 0.5	0.6

Client Sample ID			BH01_0.05-0.15	BH02_0.1-0.2	BH03_0.05-0.15	BH04_0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au19518	S17-Au19519	S17-Au19520	S17-Au19521
Date Sampled			Aug 16, 2017	Aug 16, 2017	Aug 16, 2017	Aug 16, 2017
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	22	< 0.5	1.7	2.7
Fluorene	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	7.3	< 0.5	0.6	1.2
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	10	< 0.5	1.0	1.9
Pyrene	0.5	mg/kg	22	< 0.5	1.8	4.5
Total PAH*	0.5	mg/kg	146.1	< 0.5	10.6	21.5
2-Fluorobiphenyl (surr.)	1	%	96	98	107	78
p-Terphenyl-d14 (surr.)	1	%	130	144	149	110
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	86	77	63	74
Tetrachloro-m-xylene (surr.)	1	%	61	63	57	63
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	86	77	63	74
Tetrachloro-m-xylene (surr.)	1	%	61	63	57	63

Client Sample ID			BH01_0.05-0.15	BH02_0.1-0.2	BH03_0.05-0.15	BH04_0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au19518	S17-Au19519	S17-Au19520	S17-Au19521
Date Sampled			Aug 16, 2017	Aug 16, 2017	Aug 16, 2017	Aug 16, 2017
Test/Reference	LOR	Unit				
% Clay	1	%	15	16	10.0	10
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	120	130	140	73
pH (1:5 Aqueous extract)	0.1	pH Units	7.9	6.5	9.3	9.5
Total Organic Carbon	0.1	%	1.5	0.9	4.1	4.0
% Moisture	1	%	9.4	14	8.1	8.7
Heavy Metals						
Arsenic	2	mg/kg	57	8.0	2.8	2.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	42	24	45	20
Copper	5	mg/kg	22	< 5	47	170
Lead	5	mg/kg	110	20	20	15
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	46	24
Zinc	5	mg/kg	72	13	60	63
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	16	4.1	21	26

Client Sample ID			BH05_0-0.1	BH06_0.1-0.2	BH07_0.1-0.2	BH08_0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au19522	S17-Au19523	S17-Au19524	S17-Au19525
Date Sampled			Aug 16, 2017	Aug 16, 2017	Aug 16, 2017	Aug 16, 2017
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	63	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	63	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	97	77	130	136
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	110	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			BH05_0-0.1	BH06_0.1-0.2	BH07_0.1-0.2	BH08_0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S17-Au19522	S17-Au19523	S17-Au19524	S17-Au19525
Date Sampled			Aug 16, 2017	Aug 16, 2017	Aug 16, 2017	Aug 16, 2017
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	101	96	106	100
p-Terphenyl-d14 (surr.)	1	%	145	142	140	141
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	139	101	72	99
Tetrachloro-m-xylene (surr.)	1	%	50	128	62	114

Client Sample ID			BH05_0-0.1	BH06_0.1-0.2	BH07_0.1-0.2	BH08_0.1-0.2
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au19522**	**S17-Au19523**	**S17-Au19524**	**S17-Au19525**
Date Sampled			**Aug 16, 2017**	**Aug 16, 2017**	**Aug 16, 2017**	**Aug 16, 2017**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.5	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	139	101	72	99
Tetrachloro-m-xylene (surr.)	1	%	50	128	62	114
% Clay	1	%	7.5	10	7.5	8.8
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	25	57	76	1300
pH (1:5 Aqueous extract)	0.1	pH Units	8.2	8.1	8.1	12
Total Organic Carbon	0.1	%	1.6	0.9	1.1	0.4
% Moisture	1	%	7.1	5.5	5.5	11
Heavy Metals						
Arsenic	2	mg/kg	3.1	2.2	3.4	2.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.4	7.2	10	7.2
Copper	5	mg/kg	5.8	< 5	15	< 5
Lead	5	mg/kg	17	22	52	13
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	16	< 5
Zinc	5	mg/kg	61	18	75	13
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	6.4	7.0	10	89

Client Sample ID			BH09_0.1-0.2	QA20170816
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S17-Au19526**	**S17-Au19527**
Date Sampled			**Aug 16, 2017**	**Aug 16, 2017**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	130
TRH C10-36 (Total)	50	mg/kg	< 50	130
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	126	82

Client Sample ID			BH09_0.1-0.2	QA20170816
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			S17-Au19526	S17-Au19527
Date Sampled			Aug 16, 2017	Aug 16, 2017
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH C6-C10	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	160
TRH >C34-C40	100	mg/kg	< 100	< 100
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	110	91
p-Terphenyl-d14 (surr.)	1	%	147	122
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05

Client Sample ID			BH09_0.1-0.2	QA20170816
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			S17-Au19526	S17-Au19527
Date Sampled			Aug 16, 2017	Aug 16, 2017
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	85	87
Tetrachloro-m-xylene (surr.)	1	%	69	69
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	85	87
Tetrachloro-m-xylene (surr.)	1	%	69	69
% Clay	1	%	6.3	-
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	85	-
pH (1:5 Aqueous extract)	0.1	pH Units	8.4	-
Total Organic Carbon	0.1	%	2.9	-
% Moisture	1	%	8.3	7.8
Heavy Metals				
Arsenic	2	mg/kg	6.5	3.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	7.4	11
Copper	5	mg/kg	20	16
Lead	5	mg/kg	110	59
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	16
Zinc	5	mg/kg	54	86
Cation Exchange Capacity				
Cation Exchange Capacity	0.05	meq/100g	7.7	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
JBS&G Suite 2			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 21, 2017	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Aug 21, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 21, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 21, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 21, 2017	14 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Melbourne	Aug 21, 2017	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Melbourne	Aug 21, 2017	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Aug 21, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
% Clay	Brisbane	Aug 22, 2017	6 Day
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract)	Melbourne	Aug 21, 2017	7 Day
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Aug 22, 2017	28 Day
- Method: APHA 5310B Total Organic Carbon			
Conductivity (1:5 aqueous extract at 25°C)	Melbourne	Aug 21, 2017	7 Day
- Method: LTM-INO-4030			
Cation Exchange Capacity	Melbourne	Aug 23, 2017	180 Days
- Method: LTM-MET-3060 - Cation Exchange Capacity (CEC) & Exchangeable Sodium Percentage (ESP)			
% Moisture	Melbourne	Aug 16, 2017	14 Day
- Method: LTM-GEN-7080 Moisture			

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Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH01_0.05-0.15	Aug 16, 2017		Soil	S17-Au19518	X	X		X	X	X	X		X
2	BH02_0.1-0.2	Aug 16, 2017		Soil	S17-Au19519	X	X		X	X	X	X		X
3	BH03_0.05-0.15	Aug 16, 2017		Soil	S17-Au19520	X	X		X	X	X	X		X
4	BH04_0.1-0.2	Aug 16, 2017		Soil	S17-Au19521	X	X		X	X	X	X		X
5	BH05_0-0.1	Aug 16, 2017		Soil	S17-Au19522	X	X		X	X	X	X		X
6	BH06_0.1-0.2	Aug 16, 2017		Soil	S17-Au19523	X	X		X	X	X	X		X
7	BH07_0.1-0.2	Aug 16, 2017		Soil	S17-Au19524	X	X		X	X	X	X		X
8	BH08_0.1-0.2	Aug 16, 2017		Soil	S17-Au19525	X	X		X	X	X	X		X

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Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
9	BH09_0.1-0.2	Aug 16, 2017		Soil	S17-Au19526	X	X		X	X	X	X		X
10	QA20170816	Aug 16, 2017		Soil	S17-Au19527						X			X
11	TB	Aug 16, 2017		Water	S17-Au19528								X	
12	TS	Aug 16, 2017		Water	S17-Au19529								X	
13	BH01_0.2-0.3	Aug 16, 2017		Soil	S17-Au19530			X						
14	BH02_0.5-0.6	Aug 16, 2017		Soil	S17-Au19531			X						
15	BH03_0.2-0.3	Aug 16, 2017		Soil	S17-Au19532			X						
16	BH04_0.5-0.6	Aug 16, 2017		Soil	S17-Au19533			X						
17	BH04_0.6-0.7	Aug 16, 2017		Soil	S17-Au19534			X						
18	BH06_0.6-0.7	Aug 16, 2017		Soil	S17-Au19535			X						
19	BH08_0.3-0.4	Aug 16, 2017		Soil	S17-Au19536			X						
20	BH08_0.8-0.9	Aug 16, 2017		Soil	S17-Au19537			X						

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
21	BH09_0.4-0.5	Aug 16, 2017		Soil	S17-Au19538			X						
22	CBR03	Aug 16, 2017		Soil	S17-Au19539			X						
Test Counts						9	9	10	9	9	10	9	2	10

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
% Clay	%	< 1			1	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	124			70-130	Pass	
TRH C10-C14	%	90			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	106			70-130	Pass	
Toluene	%	126			70-130	Pass	
Ethylbenzene	%	127			70-130	Pass	
m&p-Xylenes	%	127			70-130	Pass	
Xylenes - Total	%	127			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	89			70-130	Pass	
TRH C6-C10	%	122			70-130	Pass	
TRH >C10-C16	%	82			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthene	%	87			70-130	Pass	
Acenaphthylene	%	101			70-130	Pass	
Anthracene	%	104			70-130	Pass	
Benz(a)anthracene	%	104			70-130	Pass	
Benzo(a)pyrene	%	105			70-130	Pass	
Benzo(b&j)fluoranthene	%	107			70-130	Pass	
Benzo(g.h.i)perylene	%	84			70-130	Pass	
Benzo(k)fluoranthene	%	110			70-130	Pass	
Chrysene	%	101			70-130	Pass	
Dibenz(a.h)anthracene	%	91			70-130	Pass	
Fluoranthene	%	100			70-130	Pass	
Fluorene	%	101			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	89			70-130	Pass	
Naphthalene	%	94			70-130	Pass	
Phenanthrene	%	100			70-130	Pass	
Pyrene	%	98			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	113			70-130	Pass	
4.4'-DDE	%	99			70-130	Pass	
4.4'-DDT	%	70			70-130	Pass	
a-BHC	%	105			70-130	Pass	
Aldrin	%	103			70-130	Pass	
b-BHC	%	101			70-130	Pass	
d-BHC	%	117			70-130	Pass	
Dieldrin	%	97			70-130	Pass	
Endosulfan I	%	97			70-130	Pass	
Endosulfan II	%	95			70-130	Pass	
Endosulfan sulphate	%	94			70-130	Pass	
Endrin	%	98			70-130	Pass	
Endrin aldehyde	%	90			70-130	Pass	
Endrin ketone	%	77			70-130	Pass	
g-BHC (Lindane)	%	109			70-130	Pass	
Heptachlor	%	87			70-130	Pass	
Heptachlor epoxide	%	99			70-130	Pass	
Hexachlorobenzene	%	102			70-130	Pass	
Methoxychlor	%	82			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	89			70-130	Pass	
LCS - % Recovery							
% Clay	%	96			70-130	Pass	
Total Organic Carbon	%	96			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	97			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	103			80-120	Pass	
Copper	%	105			80-120	Pass	
Lead	%	109			80-120	Pass	
Mercury	%	112			75-125	Pass	
Nickel	%	107			80-120	Pass	
Zinc	%	106			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S17-Au19360	NCP	%	116			70-130	Pass	
TRH C10-C14	S17-Au19666	NCP	%	86			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S17-Au19360	NCP	%	79			70-130	Pass	
Toluene	S17-Au19360	NCP	%	96			70-130	Pass	
Ethylbenzene	S17-Au19360	NCP	%	96			70-130	Pass	
m&p-Xylenes	S17-Au19360	NCP	%	97			70-130	Pass	
o-Xylene	S17-Au19360	NCP	%	98			70-130	Pass	
Xylenes - Total	S17-Au19360	NCP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S17-Au19360	NCP	%	94			70-130	Pass	
TRH C6-C10	S17-Au19360	NCP	%	113			70-130	Pass	
TRH >C10-C16	S17-Au19666	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S17-Au19651	NCP	%	104			70-130	Pass	
Acenaphthylene	S17-Au19651	NCP	%	122			70-130	Pass	
Anthracene	S17-Au19651	NCP	%	125			70-130	Pass	
Benz(a)anthracene	S17-Au19651	NCP	%	111			70-130	Pass	
Benzo(a)pyrene	S17-Au19651	NCP	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	S17-Au19651	NCP	%	99			70-130	Pass	
Benzo(g.h.i)perylene	S17-Au19651	NCP	%	128			70-130	Pass	
Benzo(k)fluoranthene	S17-Au19651	NCP	%	105			70-130	Pass	
Chrysene	S17-Au19651	NCP	%	113			70-130	Pass	
Dibenz(a.h)anthracene	S17-Au19651	NCP	%	125			70-130	Pass	
Fluoranthene	S17-Au19651	NCP	%	114			70-130	Pass	
Fluorene	S17-Au19651	NCP	%	117			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S17-Au19651	NCP	%	124			70-130	Pass	
Naphthalene	S17-Au19651	NCP	%	111			70-130	Pass	
Phenanthrene	S17-Au19651	NCP	%	110			70-130	Pass	
Pyrene	S17-Au19651	NCP	%	112			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au18853	NCP	%	102			75-125	Pass	
Cadmium	M17-Au18853	NCP	%	108			75-125	Pass	
Chromium	M17-Au18853	NCP	%	99			75-125	Pass	
Copper	M17-Au18853	NCP	%	107			75-125	Pass	
Lead	M17-Au18853	NCP	%	107			75-125	Pass	
Mercury	M17-Au18853	NCP	%	118			70-130	Pass	
Nickel	M17-Au18853	NCP	%	102			75-125	Pass	
Zinc	M17-Au18853	NCP	%	111			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S17-Au19519	CP	%	93			70-130	Pass	
4.4'-DDE	S17-Au19519	CP	%	90			70-130	Pass	
4.4'-DDT	S17-Au19519	CP	%	89			70-130	Pass	
a-BHC	S17-Au19519	CP	%	96			70-130	Pass	
Aldrin	S17-Au19519	CP	%	94			70-130	Pass	
b-BHC	S17-Au19519	CP	%	91			70-130	Pass	
d-BHC	S17-Au19519	CP	%	105			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	S17-Au19519	CP	%	89			70-130	Pass	
Endosulfan I	S17-Au19519	CP	%	87			70-130	Pass	
Endosulfan II	S17-Au19519	CP	%	91			70-130	Pass	
Endosulfan sulphate	S17-Au19519	CP	%	92			70-130	Pass	
Endrin	S17-Au19519	CP	%	96			70-130	Pass	
Endrin aldehyde	S17-Au19519	CP	%	82			70-130	Pass	
Endrin ketone	S17-Au19519	CP	%	85			70-130	Pass	
g-BHC (Lindane)	S17-Au19519	CP	%	101			70-130	Pass	
Heptachlor	S17-Au19519	CP	%	92			70-130	Pass	
Heptachlor epoxide	S17-Au19519	CP	%	90			70-130	Pass	
Hexachlorobenzene	S17-Au19519	CP	%	94			70-130	Pass	
Methoxychlor	S17-Au19519	CP	%	100			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S17-Au19524	CP	%	84			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S17-Au20533	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S17-Au20533	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S17-Au20533	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S17-Au20533	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S17-Au20533	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S17-Au20533	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C)	S17-Au19518	CP	uS/cm	120	110	6.0	30%	Pass	
pH (1:5 Aqueous extract)	S17-Au19518	CP	pH Units	7.9	8.0	pass	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au18853	NCP	mg/kg	3.5	3.6	3.0	30%	Pass	
Cadmium	M17-Au18853	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M17-Au18853	NCP	mg/kg	30	30	<1	30%	Pass	
Copper	M17-Au18853	NCP	mg/kg	13	13	1.0	30%	Pass	
Lead	M17-Au18853	NCP	mg/kg	13	13	1.0	30%	Pass	
Mercury	M17-Au18853	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M17-Au18853	NCP	mg/kg	15	15	1.0	30%	Pass	
Zinc	M17-Au18853	NCP	mg/kg	31	31	2.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluorene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S17-Au19519	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	S17-Au19519	CP	%	0.9	0.8	4.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S17-Au19520	CP	%	8.1	8.8	8.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S17-Au19521	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S17-Au19521	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S17-Au19521	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S17-Au19521	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S17-Au19521	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S17-Au19521	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S17-Au19521	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S17-Au19521	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S17-Au19521	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25°C)	S17-Au19521	CP	uS/cm	73	71	4.0	30%	Pass	
pH (1:5 Aqueous extract)	S17-Au19521	CP	pH Units	9.5	9.6	pass	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Clay	S17-Au19522	CP	%	7.5	9.1	19	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Hexachlorobenzene	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S17-Au19523	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S17-Au19523	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S17-Au19523	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)
Matthew Deaves	Senior Analyst-Asbestos (WA)
Rhys Thomas	Senior Analyst-Asbestos (WA)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **558877-W**
Project name ESA 3 SCHOOLS - GREENWICH
Project ID 52885
Received Date Aug 16, 2017

Client Sample ID			**TB**	[R20]**TS**
Sample Matrix			**Water**	**Water**
Eurofins | mgt Sample No.			**S17-Au19528**	**S17-Au19529**
Date Sampled			**Aug 16, 2017**	**Aug 16, 2017**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.01	mg/L	< 0.01	84
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-
TRH C6-C10	0.02	mg/L	< 0.02	84
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	0.02	mg/L	< 0.02	92
BTEX				
Benzene	0.001	mg/L	< 0.001	95
Toluene	0.001	mg/L	< 0.001	95
Ethylbenzene	0.001	mg/L	< 0.001	94
m&p-Xylenes	0.002	mg/L	< 0.002	94
o-Xylene	0.001	mg/L	< 0.001	95
Xylenes - Total	0.003	mg/L	< 0.003	95
4-Bromofluorobenzene (surr.)	1	%	93	98

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons	Sydney	Aug 16, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
JBS&G Suite 2			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Aug 16, 2017	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
BTEX	Sydney	Aug 16, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			

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NATA # 1261 Site # 20794

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NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 558877
Phone: 02 8245 0300
Fax:

Received: Aug 16, 2017 5:00 PM
Due: Aug 23, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
External Laboratory														
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**									
1	BH01_0.05-0.15	Aug 16, 2017		Soil	S17-Au19518	X	X		X	X	X	X		X
2	BH02_0.1-0.2	Aug 16, 2017		Soil	S17-Au19519	X	X		X	X	X	X		X
3	BH03_0.05-0.15	Aug 16, 2017		Soil	S17-Au19520	X	X		X	X	X	X		X
4	BH04_0.1-0.2	Aug 16, 2017		Soil	S17-Au19521	X	X		X	X	X	X		X
5	BH05_0-0.1	Aug 16, 2017		Soil	S17-Au19522	X	X		X	X	X	X		X
6	BH06_0.1-0.2	Aug 16, 2017		Soil	S17-Au19523	X	X		X	X	X	X		X
7	BH07_0.1-0.2	Aug 16, 2017		Soil	S17-Au19524	X	X		X	X	X	X		X
8	BH08_0.1-0.2	Aug 16, 2017		Soil	S17-Au19525	X	X		X	X	X	X		X

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Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
9	BH09_0.1-0.2	Aug 16, 2017		Soil	S17-Au19526	X	X		X	X	X	X		X
10	QA20170816	Aug 16, 2017		Soil	S17-Au19527						X			X
11	TB	Aug 16, 2017		Water	S17-Au19528								X	
12	TS	Aug 16, 2017		Water	S17-Au19529								X	
13	BH01_0.2-0.3	Aug 16, 2017		Soil	S17-Au19530			X						
14	BH02_0.5-0.6	Aug 16, 2017		Soil	S17-Au19531			X						
15	BH03_0.2-0.3	Aug 16, 2017		Soil	S17-Au19532			X						
16	BH04_0.5-0.6	Aug 16, 2017		Soil	S17-Au19533			X						
17	BH04_0.6-0.7	Aug 16, 2017		Soil	S17-Au19534			X						
18	BH06_0.6-0.7	Aug 16, 2017		Soil	S17-Au19535			X						
19	BH08_0.3-0.4	Aug 16, 2017		Soil	S17-Au19536			X						
20	BH08_0.8-0.9	Aug 16, 2017		Soil	S17-Au19537			X						

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Moisture Set	Cation Exchange Capacity	BTEXN and Volatile TRH	JBS&G Suite 2
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217													X	X
Brisbane Laboratory - NATA Site # 20794						X								
Perth Laboratory - NATA Site # 23736							X							
21	BH09_0.4-0.5	Aug 16, 2017		Soil	S17-Au19538			X						
22	CBR03	Aug 16, 2017		Soil	S17-Au19539			X						
Test Counts						9	9	10	9	9	10	9	2	10

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	82			70-130	Pass	
TRH C6-C10	%	102			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	106			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	91			70-130	Pass	
Toluene	%	89			70-130	Pass	
Ethylbenzene	%	89			70-130	Pass	
m&p-Xylenes	%	88			70-130	Pass	
o-Xylene	%	88			70-130	Pass	
Xylenes - Total	%	88			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M17-Au22436	NCP	%	92			70-130	Pass	
TRH C6-C10	M17-Au22436	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M17-Au22436	NCP	%	71			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M17-Au22436	NCP	%	82			70-130	Pass	
Toluene	M17-Au22436	NCP	%	80			70-130	Pass	
Ethylbenzene	M17-Au22436	NCP	%	79			70-130	Pass	
m&p-Xylenes	M17-Au22436	NCP	%	80			70-130	Pass	
o-Xylene	M17-Au22436	NCP	%	81			70-130	Pass	
Xylenes - Total	M17-Au22436	NCP	%	80			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M17-Au22046	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M17-Au22046	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M17-Au22046	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M17-Au22046	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	M17-Au22046	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	M17-Au22046	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	M17-Au22046	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	M17-Au22046	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	M17-Au22046	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
R20	This sample is a Trip Spike and therefore all results are reported as a percentage

Authorised By

Nibha Vaidya Analytical Services Manager

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

010875

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 53033
PROJECT NAME: 3 Schools
DATE NEEDED BY: Std TAT

LABORATORY BATCH NO.:
SAMPLERS: NWells
QC LEVEL: NEPM (2013)

PHONE: Sydney: 02 8245 0300 | Perth: 08 9488 0100 | Brisbane: 07 3112 2688

SEND REPORT & INVOICE TO: (1) adminnsw@jbsg.com.au; (2) .....SBarrows.....@jbsg.com.au; (3) .....NWells.....@jbsg.com.au

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	TRH	BTEX	PAH	OCP	PCB	Asbestos in soil	CEC	pH	% clay	TOC	TCLP	HOLD						TYPE OF ASBESTOS ANALYSIS: IDENTIFICATION	TYPE OF ASBESTOS ANALYSIS: NEPM/WA	NOTES:
BH10 - 0.0-0.1	Soil	17/8		Jar + bag + ice		X	X	X	X	X	X	X	X	X	X	X										
BH11 - 0.1-0.2						X	X	X	X	X	X	X	X	X	X	X										
-0.4-0.5																		X								
-0.8-0.9																		X								
BH12 - 0.1-0.2																		X								
-0.4-0.5						X	X	X	X	X	X	X	X	X	X	X										
-0.9-1.0																		X								
-1.4-1.5																		X								
-1.9-2.0																		X								
BH13 - 0.1-0.2						X	X	X	X	X	X	X	X	X	X	X										
-0.4-0.5																										
-0.9-1.0																										
BH14 - 0.1-0.2						X	X	X	X	X	X	X	X	X	X	X										
QA20170817				Jar only		X	X	X	X	X	X*															
~~QC20170817~~																										
RB20170817	Water			bottles + vials		X	X	X	X	X	X															
TB20170817							X	X																		
TS20170817							X	X																		
QC20170817																		X								

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: NWells DATE: 17/8/17	CONSIGNMENT NOTE NO.	NAME: Catherine	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: 17/8 OF: EPImelt 1.39 pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO FormsO13 – Chain of Custody - Generic

559175

559175.

Enviro Sample Vic

From: Nibha Vaidya
Sent: Friday, 18 August 2017 4:52 PM
To: Enviro Sample Vic
Subject: FW: Eurofins | mgt Sample Receipt Advice - Report 559175 : Site 3 SCHOOLS (53033)

Follow Up Flag: Follow up
Flag Status: Flagged

Additional TCLP analysis please, guys. Add them to the same report if possible.

Jonathan
18/8.

Kind Regards,

Nibha Vaidya
Phone : +61 2 9900 8415
Mobile : +61 499 900 805
Email : NibhaVaidya@eurofins.com

From: Scott Burrows [mailto:sburrows@jbsg.com.au]
Sent: Friday, 18 August 2017 4:23 PM
To: Nibha Vaidya
Subject: FW: Eurofins | mgt Sample Receipt Advice - Report 559175 : Site 3 SCHOOLS (53033)

Hi Nibha,

In addition to the attached analysis, can I also get TCLP for the metals and PAHs for samples

- BH10 (0.0-0.1)
- BH11 (0.0-0.2)
- BH12 (0.4-0.5)
- BH13 (0.1-0.2)
- BH14 (0.1-0.2)

Au 22053 – 22057. D.S. 17/8.

G1282.

These are all on standard turnaround times.

Please let me know should there be any issues.

Kind Regards,
Scott

Scott Burrows | Senior Environmental Consultant | JBS&G
Sydney | Melbourne | Adelaide | Perth | Brisbane
Level 1, 50 Margaret Street Sydney NSW 2000
T: 02 8245 0300 | M: 0412 003 993 | www.jbsg.com.au
Contaminated Land | Groundwater Remediation | Environmental Impact Assessment | Auditing and Compliance | Hygiene and Hazardous Materials | Due Diligence and Liability

From: envirosamplevic@eurofins.com [mailto:envirosamplevic@eurofins.com]
Sent: Friday, 18 August 2017 2:42 PM
To: Scott Burrows <sburrows@jbsg.com.au>

Melbourne
3-5 Kingston Town Close
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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

Perth
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Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Scott Burrows
Project name: 3 SCHOOLS
Project ID: 53033
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 17, 2017 1:39 PM
Eurofins | mgt reference: **559175**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 15 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

Sample BH12_2.3-2.4 received extra & placed on HOLD

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Scott Burrows - SBurrows@jbsg.com.au.

eurofins | mgt

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web : www.eurofins.com.au

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NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 3 SCHOOLS
Project ID: 53033

Order No.:
Report #: 559175
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 1:39 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
External Laboratory																						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
1	BH10_0.0-0.1	Aug 17, 2017		Soil	M17-Au22053	X	X		X	X	X	X	X		X	X		X	X	X		
2	BH11_0.1-0.2	Aug 17, 2017		Soil	M17-Au22054	X	X		X	X	X	X	X		X	X		X	X	X		
3	BH12_0.4-0.5	Aug 17, 2017		Soil	M17-Au22055	X	X		X	X	X	X	X		X	X		X	X	X		
4	BH13_0.1-0.2	Aug 17, 2017		Soil	M17-Au22056	X	X		X	X	X	X	X		X	X		X	X	X		
5	BH14_0.1-0.2	Aug 17, 2017		Soil	M17-Au22057	X	X		X	X	X	X	X		X	X		X	X	X		
6	QA20170817	Aug 17, 2017		Soil	M17-Au22058						X	X			X	X		X		X		
7	RB20170817	Aug 17, 2017		Water	M17-Au22059						X	X			X		X			X		
8	TB20170817	Aug 17, 2017		Water	M17-Au22060																	X
9	TS20170817	Aug 17, 2017		Water	M17-Au22061																X	

eurofins | mgt

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web : www.eurofins.com.au

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NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 3 SCHOOLS
Project ID: 53033

Order No.:
Report #: 559175
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 1:39 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
10	BH11_0.4-0.5	Aug 17, 2017		Soil	M17-Au22062			X														
11	BH11_0.8-0.9	Aug 17, 2017		Soil	M17-Au22063			X														
12	BH12_0.1-0.2	Aug 17, 2017		Soil	M17-Au22064			X														
13	BH12_0.9-1.0	Aug 17, 2017		Soil	M17-Au22065			X														
14	BH12_1.4-1.5	Aug 17, 2017		Soil	M17-Au22066			X														
15	BH12_1.9-2.0	Aug 17, 2017		Soil	M17-Au22067			X														
16	BH13_0.4-0.5	Aug 17, 2017		Soil	M17-Au22068			X														
17	BH13_0.9-1.0	Aug 17, 2017		Soil	M17-Au22069			X														
18	QC20170817	Aug 17, 2017		Soil	M17-Au22070			X														
19	BH12_2.3-2.4	Aug 17, 2017		Soil	M17-Au22071			X														
20	BH10_0.0-0.1	Aug 17, 2017		US Leachate	M17-Au23735						X			X	X							
21	BH11_0.0-0.2	Aug 17, 2017		US Leachate	M17-Au23736						X			X	X							

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
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NSW 2000

Project Name: 3 SCHOOLS
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Received: Aug 17, 2017 1:39 PM
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Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
22	BH12_0.4-0.5	Aug 17, 2017		US Leachate	M17-Au23737						X			X	X							
23	BH13_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23738						X			X	X							
24	BH14_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23739						X			X	X							
Test Counts						5	5	10	5	5	12	7	5	5	12	7	7	6	5	7	2	2

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025–Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Scott Burrows
Report	559175-AID
Project Name	3 SCHOOLS
Project ID	53033
Received Date	Aug 17, 2017
Date Reported	Aug 24, 2017

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS4964 method is around 0.1 g/kg (0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis where required, this is considered to be at the nominal reporting limit of 0.01 % (w / w).The examination of large sample sizes(500 mL is recommended) may improve the likelihood of identifying ACM in the > 2mm fraction.The NEPM screening level of 0.001 % (w / w) asbestos in soil for FA(friable asbestos) and AF(asbestos fines) then applies where they are able to be quantified by gravimetric procedures.This quantitative screening is not generally applicable to FF(free fibres) and results of Trace Analysis are referred. *NOTE: NATA News March 2014, p.7, states in relation to AS4964: "This is a qualitative method with a nominal reporting limit of 0.01%" and that currently in Australia "there is no validated method available for the quantification of asbestos". Accordingly, NATA Accreditation does not cover the performance of this service (indicated with an asterisk).* *This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, 2013 (as amended) and the Western Australia Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, 2009, including supporting document Recommended Procedures for Laboratory Analysis of Asbestos in Soil, June 2011.*

Project Name 3 SCHOOLS
Project ID 53033
Date Sampled Aug 17, 2017
Report 559175-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BH10_0.0-0.1	17-Au22053	Aug 17, 2017	Approximate Sample 458g Sample consisted of: Brown coarse grain soil and rocks	FA: Chrysotile asbestos detected in weathered fibre cement fragments. Approximate raw weight of FA = 0.14g Estimated asbestos content in FA = 0.072g* Total estimated asbestos concentration in FA = 0.016% w/w* Organic fibre detected.[M11]
BH11_0.1-0.2	17-Au22054	Aug 17, 2017	Approximate Sample 821g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH12_0.4-0.5	17-Au22055	Aug 17, 2017	Approximate Sample 497g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH13_0.1-0.2	17-Au22056	Aug 17, 2017	Approximate Sample 566g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
BH14_0.1-0.2	17-Au22057	Aug 17, 2017	Approximate Sample 413g Sample consisted of: Brown coarse grain soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Aug 18, 2017	Indefinite

ABN – 50 005 085 521
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web : www.eurofins.com.au

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Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 3 SCHOOLS
Project ID: 53033

Order No.:
Report #: 559175
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 1:39 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
External Laboratory																						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
1	BH10_0.0-0.1	Aug 17, 2017		Soil	M17-Au22053	X	X		X	X	X	X	X		X	X		X	X	X		
2	BH11_0.1-0.2	Aug 17, 2017		Soil	M17-Au22054	X	X		X	X	X	X	X		X	X		X	X	X		
3	BH12_0.4-0.5	Aug 17, 2017		Soil	M17-Au22055	X	X		X	X	X	X	X		X	X		X	X	X		
4	BH13_0.1-0.2	Aug 17, 2017		Soil	M17-Au22056	X	X		X	X	X	X	X		X	X		X	X	X		
5	BH14_0.1-0.2	Aug 17, 2017		Soil	M17-Au22057	X	X		X	X	X	X	X		X	X		X	X	X		
6	QA20170817	Aug 17, 2017		Soil	M17-Au22058						X	X			X	X		X		X		
7	RB20170817	Aug 17, 2017		Water	M17-Au22059						X	X			X		X			X		
8	TB20170817	Aug 17, 2017		Water	M17-Au22060																	X
9	TS20170817	Aug 17, 2017		Water	M17-Au22061																X	

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Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
10	BH11_0.4-0.5	Aug 17, 2017		Soil	M17-Au22062			X														
11	BH11_0.8-0.9	Aug 17, 2017		Soil	M17-Au22063			X														
12	BH12_0.1-0.2	Aug 17, 2017		Soil	M17-Au22064			X														
13	BH12_0.9-1.0	Aug 17, 2017		Soil	M17-Au22065			X														
14	BH12_1.4-1.5	Aug 17, 2017		Soil	M17-Au22066			X														
15	BH12_1.9-2.0	Aug 17, 2017		Soil	M17-Au22067			X														
16	BH13_0.4-0.5	Aug 17, 2017		Soil	M17-Au22068			X														
17	BH13_0.9-1.0	Aug 17, 2017		Soil	M17-Au22069			X														
18	QC20170817	Aug 17, 2017		Soil	M17-Au22070			X														
19	BH12_2.3-2.4	Aug 17, 2017		Soil	M17-Au22071			X														
20	BH10_0.0-0.1	Aug 17, 2017		US Leachate	M17-Au23735						X			X	X							
21	BH11_0.0-0.2	Aug 17, 2017		US Leachate	M17-Au23736						X			X	X							

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Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
22	BH12_0.4-0.5	Aug 17, 2017		US Leachate	M17-Au23737						X			X	X							
23	BH13_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23738						X			X	X							
24	BH14_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23739						X			X	X							
Test Counts						5	5	10	5	5	12	7	5	5	12	7	7	6	5	7	2	2

Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

Units

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis
LOR	Limit of Reporting
COC	Chain of Custody
SRA	Sample Receipt Advice
ISO	International Standards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Samples Au22053, Au22055 & Au22057 received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Authorised by:

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **559175-L**
Project name 3 SCHOOLS
Project ID 53033
Received Date Aug 17, 2017

Client Sample ID			**BH10_0.0-0.1**	**BH11_0.0-0.2**	**BH12_0.4-0.5**	**BH13_0.1-0.2**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins | mgt Sample No.			**M17-Au23735**	**M17-Au23736**	**M17-Au23737**	**M17-Au23738**
Date Sampled			**Aug 17, 2017**	**Aug 17, 2017**	**Aug 17, 2017**	**Aug 17, 2017**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	136	106	122	103
p-Terphenyl-d14 (surr.)	1	%	134	118	121	105
Heavy Metals						
Arsenic	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Copper	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Lead	0.01	mg/L	< 0.01	< 0.01	5.8	< 0.01
Mercury	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Nickel	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Zinc	0.01	mg/L	0.07	0.01	0.09	0.03
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	4.3	5.1	5.2	5.2
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.2	5.1	5.0	5.1
pH (USA HCl addition)	0.1	pH Units	NA	1.9	1.9	2.0

Client Sample ID			BH14_0.1-0.2
Sample Matrix			**US Leachate**
Eurofins | mgt Sample No.			**M17-Au23739**
Date Sampled			**Aug 17, 2017**
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	132
p-Terphenyl-d14 (surr.)	1	%	133
Heavy Metals			
Arsenic	0.01	mg/L	< 0.01
Cadmium	0.005	mg/L	< 0.005
Chromium	0.01	mg/L	< 0.01
Copper	0.01	mg/L	< 0.01
Lead	0.01	mg/L	< 0.01
Mercury	0.001	mg/L	< 0.001
Nickel	0.01	mg/L	< 0.01
Zinc	0.01	mg/L	< 0.01
USA Leaching Procedure			
Leachate Fluid[C01]		comment	1.0
pH (initial)	0.1	pH Units	5.3
pH (Leachate fluid)	0.1	pH Units	5.0
pH (off)	0.1	pH Units	5.1
pH (USA HCl addition)	0.1	pH Units	2.0

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 22, 2017	7 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Metals M8	Melbourne	Aug 21, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			

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Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
External Laboratory																						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
1	BH10_0.0-0.1	Aug 17, 2017		Soil	M17-Au22053	X	X		X	X	X	X	X		X	X		X	X	X		
2	BH11_0.1-0.2	Aug 17, 2017		Soil	M17-Au22054	X	X		X	X	X	X	X		X	X		X	X	X		
3	BH12_0.4-0.5	Aug 17, 2017		Soil	M17-Au22055	X	X		X	X	X	X	X		X	X		X	X	X		
4	BH13_0.1-0.2	Aug 17, 2017		Soil	M17-Au22056	X	X		X	X	X	X	X		X	X		X	X	X		
5	BH14_0.1-0.2	Aug 17, 2017		Soil	M17-Au22057	X	X		X	X	X	X	X		X	X		X	X	X		
6	QA20170817	Aug 17, 2017		Soil	M17-Au22058						X	X			X	X		X		X		
7	RB20170817	Aug 17, 2017		Water	M17-Au22059						X	X			X		X			X		
8	TB20170817	Aug 17, 2017		Water	M17-Au22060																	X
9	TS20170817	Aug 17, 2017		Water	M17-Au22061																X	

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NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 3 SCHOOLS
Project ID: 53033

Order No.:
Report #: 559175
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 1:39 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
10	BH11_0.4-0.5	Aug 17, 2017		Soil	M17-Au22062			X														
11	BH11_0.8-0.9	Aug 17, 2017		Soil	M17-Au22063			X														
12	BH12_0.1-0.2	Aug 17, 2017		Soil	M17-Au22064			X														
13	BH12_0.9-1.0	Aug 17, 2017		Soil	M17-Au22065			X														
14	BH12_1.4-1.5	Aug 17, 2017		Soil	M17-Au22066			X														
15	BH12_1.9-2.0	Aug 17, 2017		Soil	M17-Au22067			X														
16	BH13_0.4-0.5	Aug 17, 2017		Soil	M17-Au22068			X														
17	BH13_0.9-1.0	Aug 17, 2017		Soil	M17-Au22069			X														
18	QC20170817	Aug 17, 2017		Soil	M17-Au22070			X														
19	BH12_2.3-2.4	Aug 17, 2017		Soil	M17-Au22071			X														
20	BH10_0.0-0.1	Aug 17, 2017		US Leachate	M17-Au23735						X			X	X							
21	BH11_0.0-0.2	Aug 17, 2017		US Leachate	M17-Au23736						X			X	X							

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
22	BH12_0.4-0.5	Aug 17, 2017		US Leachate	M17-Au23737						X			X	X							
23	BH13_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23738						X			X	X							
24	BH14_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23739						X			X	X							
Test Counts						5	5	10	5	5	12	7	5	5	12	7	7	6	5	7	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Arsenic			mg/L	< 0.01			0.01	Pass	
Cadmium			mg/L	< 0.005			0.005	Pass	
Chromium			mg/L	< 0.01			0.01	Pass	
Copper			mg/L	< 0.01			0.01	Pass	
Lead			mg/L	< 0.01			0.01	Pass	
Mercury			mg/L	< 0.001			0.001	Pass	
Nickel			mg/L	< 0.01			0.01	Pass	
Zinc			mg/L	< 0.01			0.01	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M17-Au23735	CP	%	109			70-130	Pass	
Acenaphthylene	M17-Au23735	CP	%	119			70-130	Pass	
Anthracene	M17-Au23735	CP	%	115			70-130	Pass	
Benz(a)anthracene	M17-Au23735	CP	%	120			70-130	Pass	
Benzo(a)pyrene	M17-Au23735	CP	%	129			70-130	Pass	
Benzo(b&j)fluoranthene	M17-Au23735	CP	%	115			70-130	Pass	
Benzo(g.h.i)perylene	M17-Au23735	CP	%	121			70-130	Pass	
Benzo(k)fluoranthene	M17-Au23735	CP	%	112			70-130	Pass	
Chrysene	M17-Au23735	CP	%	129			70-130	Pass	
Dibenz(a.h)anthracene	M17-Au23735	CP	%	127			70-130	Pass	
Fluoranthene	M17-Au23735	CP	%	128			70-130	Pass	
Fluorene	M17-Au23735	CP	%	114			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au23735	CP	%	126			70-130	Pass	
Naphthalene	M17-Au23735	CP	%	112			70-130	Pass	
Phenanthrene	M17-Au23735	CP	%	104			70-130	Pass	
Pyrene	M17-Au23735	CP	%	128			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	M17-Au24214	NCP	%	101			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au23737	CP	%	104			75-125	Pass	
Cadmium	M17-Au23737	CP	%	102			75-125	Pass	
Chromium	M17-Au23737	CP	%	103			75-125	Pass	
Copper	M17-Au23737	CP	%	101			75-125	Pass	
Mercury	M17-Au23737	CP	%	101			70-130	Pass	
Nickel	M17-Au23737	CP	%	101			75-125	Pass	
Zinc	M17-Au23737	CP	%	106			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(k)fluoranthene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M17-Au22291	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au23737	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Cadmium	M17-Au23737	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chromium	M17-Au23737	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Copper	M17-Au23737	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Lead	M17-Au23737	CP	mg/L	5.8	5.8	1.0	30%	Pass	
Mercury	M17-Au23737	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Nickel	M17-Au23737	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Zinc	M17-Au23737	CP	mg/L	0.09	0.09	1.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **559175-S**
Project name 3 SCHOOLS
Project ID 53033
Received Date Aug 17, 2017

Client Sample ID			**BH10_0.0-0.1**	**BH11_0.1-0.2**	**BH12_0.4-0.5**	**BH13_0.1-0.2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**M17-Au22053**	**M17-Au22054**	**M17-Au22055**	**M17-Au22056**
Date Sampled			**Aug 17, 2017**	**Aug 17, 2017**	**Aug 17, 2017**	**Aug 17, 2017**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	79
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	79
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	71	72	63	79
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	3.9
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	3.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	3.9
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.6
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.1
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.7
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.2
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5

Client Sample ID			BH10_0.0-0.1	BH11_0.1-0.2	BH12_0.4-0.5	BH13_0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M17-Au22053	M17-Au22054	M17-Au22055	M17-Au22056
Date Sampled			Aug 17, 2017	Aug 17, 2017	Aug 17, 2017	Aug 17, 2017
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	8.1
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.2
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.7
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	6.8
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	33.5
2-Fluorobiphenyl (surr.)	1	%	98	80	94	113
p-Terphenyl-d14 (surr.)	1	%	146	130	137	149
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	79	84	84	89
Tetrachloro-m-xylene (surr.)	1	%	118	67	67	72
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	79	84	84	89
Tetrachloro-m-xylene (surr.)	1	%	118	67	67	72

Client Sample ID			BH10_0.0-0.1	BH11_0.1-0.2	BH12_0.4-0.5	BH13_0.1-0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			M17-Au22053	M17-Au22054	M17-Au22055	M17-Au22056
Date Sampled			Aug 17, 2017	Aug 17, 2017	Aug 17, 2017	Aug 17, 2017
Test/Reference	LOR	Unit				
% Clay	1	%	12	15	16	16
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	61	59	16	86
pH (1:5 Aqueous extract)	0.1	pH Units	5.9	6.8	5.9	6.6
Total Organic Carbon	0.1	%	2.6	0.4	0.6	1.4
% Moisture	1	%	16	13	13	13
Heavy Metals						
Arsenic	2	mg/kg	3.0	3.7	3.5	7.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	9.5	18	14	34
Copper	5	mg/kg	9.5	10	9.7	24
Lead	5	mg/kg	45	23	440	36
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	10	7.4	23
Zinc	5	mg/kg	60	36	42	76
Cation Exchange Capacity						
Cation Exchange Capacity	0.05	meq/100g	9.3	20	7.8	16

Client Sample ID			BH14_0.1-0.2	QA20170817
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			M17-Au22057	M17-Au22058
Date Sampled			Aug 17, 2017	Aug 17, 2017
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50
BTEX				
Benzene	0.1	mg/kg	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	101	97
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20
TRH C6-C10	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100

Client Sample ID			BH14_0.1-0.2	QA20170817
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			M17-Au22057	M17-Au22058
Date Sampled			Aug 17, 2017	Aug 17, 2017
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	101	95
p-Terphenyl-d14 (surr.)	1	%	144	144
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	93	87
Tetrachloro-m-xylene (surr.)	1	%	71	67

Client Sample ID			BH14_0.1-0.2	QA20170817
Sample Matrix			Soil	Soil
Eurofins | mgt Sample No.			M17-Au22057	M17-Au22058
Date Sampled			Aug 17, 2017	Aug 17, 2017
Test/Reference	LOR	Unit		
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 0.1	-
Total PCB*	0.1	mg/kg	< 0.1	-
Dibutylchlorendate (surr.)	1	%	93	-
Tetrachloro-m-xylene (surr.)	1	%	71	-
% Clay	1	%	8.8	-
Conductivity (1:5 aqueous extract at 25°C)	10	uS/cm	48	-
pH (1:5 Aqueous extract)	0.1	pH Units	5.3	-
Total Organic Carbon	0.1	%	< 0.1	-
% Moisture	1	%	12	13
Heavy Metals				
Arsenic	2	mg/kg	2.8	3.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	7.5	33
Copper	5	mg/kg	5.2	13
Lead	5	mg/kg	7.5	17
Mercury	0.1	mg/kg	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	23
Zinc	5	mg/kg	< 5	39
Cation Exchange Capacity				
Cation Exchange Capacity	0.05	meq/100g	2.8	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 21, 2017	14 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Melbourne	Aug 21, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 21, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 21, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 21, 2017	14 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Melbourne	Aug 21, 2017	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Melbourne	Aug 21, 2017	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Clay	Brisbane	Aug 22, 2017	6 Day
- Method: LTM-GEN-7040			
pH (1:5 Aqueous extract)	Melbourne	Aug 21, 2017	7 Day
- Method: LTM-GEN-7090 pH in soil by ISE			
Total Organic Carbon	Melbourne	Aug 23, 2017	28 Day
- Method: APHA 5310B Total Organic Carbon			
Metals M8	Melbourne	Aug 21, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
Conductivity (1:5 aqueous extract at 25°C)	Melbourne	Aug 21, 2017	7 Day
- Method: LTM-INO-4030			
Cation Exchange Capacity	Melbourne	Aug 23, 2017	180 Days
- Method: LTM-MET-3060 - Cation Exchange Capacity (CEC) & Exchangeable Sodium Percentage (ESP)			
% Moisture	Melbourne	Aug 18, 2017	14 Day
- Method: LTM-GEN-7080 Moisture			

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NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 3 SCHOOLS
Project ID: 53033

Order No.:
Report #: 559175
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 1:39 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
External Laboratory																						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
1	BH10_0.0-0.1	Aug 17, 2017		Soil	M17-Au22053	X	X		X	X	X	X	X		X	X		X	X	X		
2	BH11_0.1-0.2	Aug 17, 2017		Soil	M17-Au22054	X	X		X	X	X	X	X		X	X		X	X	X		
3	BH12_0.4-0.5	Aug 17, 2017		Soil	M17-Au22055	X	X		X	X	X	X	X		X	X		X	X	X		
4	BH13_0.1-0.2	Aug 17, 2017		Soil	M17-Au22056	X	X		X	X	X	X	X		X	X		X	X	X		
5	BH14_0.1-0.2	Aug 17, 2017		Soil	M17-Au22057	X	X		X	X	X	X	X		X	X		X	X	X		
6	QA20170817	Aug 17, 2017		Soil	M17-Au22058						X	X			X	X		X		X		
7	RB20170817	Aug 17, 2017		Water	M17-Au22059						X	X			X		X			X		
8	TB20170817	Aug 17, 2017		Water	M17-Au22060																	X
9	TS20170817	Aug 17, 2017		Water	M17-Au22061																X	

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
10	BH11_0.4-0.5	Aug 17, 2017		Soil	M17-Au22062			X														
11	BH11_0.8-0.9	Aug 17, 2017		Soil	M17-Au22063			X														
12	BH12_0.1-0.2	Aug 17, 2017		Soil	M17-Au22064			X														
13	BH12_0.9-1.0	Aug 17, 2017		Soil	M17-Au22065			X														
14	BH12_1.4-1.5	Aug 17, 2017		Soil	M17-Au22066			X														
15	BH12_1.9-2.0	Aug 17, 2017		Soil	M17-Au22067			X														
16	BH13_0.4-0.5	Aug 17, 2017		Soil	M17-Au22068			X														
17	BH13_0.9-1.0	Aug 17, 2017		Soil	M17-Au22069			X														
18	QC20170817	Aug 17, 2017		Soil	M17-Au22070			X														
19	BH12_2.3-2.4	Aug 17, 2017		Soil	M17-Au22071			X														
20	BH10_0.0-0.1	Aug 17, 2017		US Leachate	M17-Au23735						X			X	X							
21	BH11_0.0-0.2	Aug 17, 2017		US Leachate	M17-Au23736						X			X	X							

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Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
22	BH12_0.4-0.5	Aug 17, 2017		US Leachate	M17-Au23737						X			X	X							
23	BH13_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23738						X			X	X							
24	BH14_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23739						X			X	X							
Test Counts						5	5	10	5	5	12	7	5	5	12	7	7	6	5	7	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
% Clay	%	< 1			1	Pass	
Total Organic Carbon	%	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Cation Exchange Capacity							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	123			70-130	Pass	
TRH C10-C14	%	87			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	76			70-130	Pass	
Toluene	%	92			70-130	Pass	
Ethylbenzene	%	88			70-130	Pass	
m&p-Xylenes	%	89			70-130	Pass	
Xylenes - Total	%	88			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	81			70-130	Pass	
TRH C6-C10	%	118			70-130	Pass	
TRH >C10-C16	%	89			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthene	%	97			70-130	Pass	
Acenaphthylene	%	107			70-130	Pass	
Anthracene	%	76			70-130	Pass	
Benz(a)anthracene	%	81			70-130	Pass	
Benzo(a)pyrene	%	90			70-130	Pass	
Benzo(b&j)fluoranthene	%	82			70-130	Pass	
Benzo(g.h.i)perylene	%	93			70-130	Pass	
Benzo(k)fluoranthene	%	104			70-130	Pass	
Chrysene	%	86			70-130	Pass	
Dibenz(a.h)anthracene	%	76			70-130	Pass	
Fluoranthene	%	99			70-130	Pass	
Fluorene	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	78			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	71			70-130	Pass	
Pyrene	%	99			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
4.4'-DDD	%	101			70-130	Pass	
4.4'-DDE	%	88			70-130	Pass	
4.4'-DDT	%	81			70-130	Pass	
a-BHC	%	92			70-130	Pass	
Aldrin	%	90			70-130	Pass	
b-BHC	%	85			70-130	Pass	
d-BHC	%	91			70-130	Pass	
Dieldrin	%	90			70-130	Pass	
Endosulfan I	%	91			70-130	Pass	
Endosulfan II	%	89			70-130	Pass	
Endosulfan sulphate	%	88			70-130	Pass	
Endrin	%	75			70-130	Pass	
Endrin aldehyde	%	89			70-130	Pass	
Endrin ketone	%	77			70-130	Pass	
g-BHC (Lindane)	%	96			70-130	Pass	
Heptachlor	%	73			70-130	Pass	
Heptachlor epoxide	%	90			70-130	Pass	
Hexachlorobenzene	%	90			70-130	Pass	
Methoxychlor	%	72			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	71			70-130	Pass	
LCS - % Recovery							
% Clay	%	86			70-130	Pass	
Total Organic Carbon	%	100			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	105			80-120	Pass	
Cadmium	%	106			80-120	Pass	
Chromium	%	113			80-120	Pass	
Copper	%	117			80-120	Pass	
Lead	%	114			80-120	Pass	
Mercury	%	117			75-125	Pass	
Nickel	%	118			80-120	Pass	
Zinc	%	115			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	Z17-Au20086	NCP	%	128			70-130	Pass	
TRH C10-C14	M17-Au21688	NCP	%	94			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	Z17-Au20086	NCP	%	101			70-130	Pass	
Toluene	Z17-Au20086	NCP	%	84			70-130	Pass	
Ethylbenzene	Z17-Au20086	NCP	%	119			70-130	Pass	
m&p-Xylenes	Z17-Au20086	NCP	%	118			70-130	Pass	
o-Xylene	Z17-Au20086	NCP	%	112			70-130	Pass	
Xylenes - Total	Z17-Au20086	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	Z17-Au20086	NCP	%	126			70-130	Pass	
TRH C6-C10	Z17-Au20086	NCP	%	126			70-130	Pass	
TRH >C10-C16	M17-Au21688	NCP	%	99			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M17-Au21691	NCP	%	102			70-130	Pass	
Acenaphthylene	M17-Au21691	NCP	%	116			70-130	Pass	
Anthracene	M17-Au21691	NCP	%	77			70-130	Pass	
Benz(a)anthracene	M17-Au21691	NCP	%	97			70-130	Pass	
Benzo(a)pyrene	M17-Au21691	NCP	%	103			70-130	Pass	
Benzo(b&j)fluoranthene	M17-Au21691	NCP	%	101			70-130	Pass	
Benzo(g.h.i)perylene	M17-Au21691	NCP	%	109			70-130	Pass	
Benzo(k)fluoranthene	M17-Au21691	NCP	%	101			70-130	Pass	
Chrysene	M17-Au21691	NCP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	M17-Au21691	NCP	%	91			70-130	Pass	
Fluoranthene	M17-Au21691	NCP	%	106			70-130	Pass	
Fluorene	M17-Au21691	NCP	%	114			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au21691	NCP	%	92			70-130	Pass	
Naphthalene	M17-Au21691	NCP	%	106			70-130	Pass	
Phenanthrene	M17-Au21691	NCP	%	75			70-130	Pass	
Pyrene	M17-Au21691	NCP	%	107			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M17-Au17506	NCP	%	128			70-130	Pass	
4.4'-DDE	M17-Au17506	NCP	%	108			70-130	Pass	
4.4'-DDT	M17-Au17506	NCP	%	79			70-130	Pass	
a-BHC	M17-Au17506	NCP	%	103			70-130	Pass	
Aldrin	M17-Au17506	NCP	%	101			70-130	Pass	
b-BHC	M17-Au17506	NCP	%	97			70-130	Pass	
d-BHC	M17-Au17506	NCP	%	106			70-130	Pass	
Dieldrin	M17-Au17506	NCP	%	106			70-130	Pass	
Endosulfan I	M17-Au17506	NCP	%	105			70-130	Pass	
Endosulfan II	M17-Au17506	NCP	%	109			70-130	Pass	
Endosulfan sulphate	M17-Au17506	NCP	%	111			70-130	Pass	
Endrin	M17-Au17506	NCP	%	90			70-130	Pass	
Endrin aldehyde	M17-Au17506	NCP	%	116			70-130	Pass	
Endrin ketone	M17-Au17506	NCP	%	111			70-130	Pass	
g-BHC (Lindane)	M17-Au17506	NCP	%	111			70-130	Pass	
Heptachlor	M17-Au17506	NCP	%	95			70-130	Pass	
Heptachlor epoxide	M17-Au17506	NCP	%	104			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	M17-Au17506	NCP	%	103			70-130	Pass	
Methoxychlor	M17-Au17506	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S17-Au19524	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au22335	NCP	%	69			75-125	Fail	Q08
Cadmium	M17-Au22335	NCP	%	85			75-125	Pass	
Chromium	M17-Au22335	NCP	%	87			75-125	Pass	
Copper	M17-Au22335	NCP	%	88			75-125	Pass	
Lead	M17-Au22335	NCP	%	301			75-125	Fail	Q08
Mercury	M17-Au22335	NCP	%	120			70-130	Pass	
Nickel	M17-Au22335	NCP	%	95			75-125	Pass	
Zinc	M17-Au22335	NCP	%	13			75-125	Fail	Q08
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M17-Au21696	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M17-Au21687	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M17-Au21687	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M17-Au21687	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M17-Au21696	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M17-Au21696	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M17-Au21696	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M17-Au21696	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M17-Au21696	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M17-Au21696	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M17-Au21696	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M17-Au21696	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M17-Au21687	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M17-Au21687	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M17-Au21687	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au22741	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M17-Au22741	NCP	mg/kg	< 0.5	0.5	21	30%	Pass	
Anthracene	M17-Au22741	NCP	mg/kg	0.5	0.5	5.0	30%	Pass	
Benz(a)anthracene	M17-Au22741	NCP	mg/kg	1.7	1.8	5.0	30%	Pass	
Benzo(a)pyrene	M17-Au22741	NCP	mg/kg	1.9	1.7	15	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au22741	NCP	mg/kg	1.5	1.2	19	30%	Pass	
Benzo(g.h.i)perylene	M17-Au22741	NCP	mg/kg	1.9	1.4	29	30%	Pass	
Benzo(k)fluoranthene	M17-Au22741	NCP	mg/kg	1.9	1.6	17	30%	Pass	
Chrysene	M17-Au22741	NCP	mg/kg	2.0	1.6	18	30%	Pass	
Dibenz(a.h)anthracene	M17-Au22741	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M17-Au22741	NCP	mg/kg	4.9	5.0	2.0	30%	Pass	
Fluorene	M17-Au22741	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au22741	NCP	mg/kg	1.2	0.9	24	30%	Pass	
Naphthalene	M17-Au22741	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M17-Au22741	NCP	mg/kg	1.7	2.0	19	30%	Pass	
Pyrene	M17-Au22741	NCP	mg/kg	4.4	4.7	7.0	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S17-Au20951	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S17-Au20951	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S17-Au20951	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Clay	S17-Au19522	NCP	%	7.5	9.1	19	30%	Pass	
Conductivity (1:5 aqueous extract at 25°C)	M17-Au21180	NCP	uS/cm	50	58	15	30%	Pass	
pH (1:5 Aqueous extract)	M17-Au21180	NCP	pH Units	6.2	6.4	pass	30%	Pass	
Total Organic Carbon	M17-Au23636	NCP	%	2.6	2.4	10	30%	Pass	
% Moisture	M17-Au22090	NCP	%	9.2	8.9	3.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au22335	NCP	mg/kg	14	14	4.0	30%	Pass	
Cadmium	M17-Au22335	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M17-Au22335	NCP	mg/kg	19	20	1.0	30%	Pass	
Copper	M17-Au22335	NCP	mg/kg	26	27	3.0	30%	Pass	
Lead	M17-Au22335	NCP	mg/kg	440	440	1.0	30%	Pass	
Mercury	M17-Au22335	NCP	mg/kg	0.7	0.7	3.0	30%	Pass	
Nickel	M17-Au22335	NCP	mg/kg	24	24	2.0	30%	Pass	
Zinc	M17-Au22335	NCP	mg/kg	220	220	2.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Jonathon Angell	Senior Analyst-Inorganic (QLD)
Joseph Edouard	Senior Analyst-Organic (VIC)
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **559175-W**
Project name 3 SCHOOLS
Project ID 53033
Received Date Aug 17, 2017

Client Sample ID			**RB20170817**	**TB20170817**	**[R20]TS20170817**
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**M17-Au22059**	**M17-Au22060**	**M17-Au22061**
Date Sampled			**Aug 17, 2017**	**Aug 17, 2017**	**Aug 17, 2017**
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	120
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	80
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	-
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	77
TRH C10-C14	0.05	mg/L	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	-	-
TRH C10-36 (Total)	0.1	mg/L	< 0.1	-	-
BTEX					
Benzene	0.001	mg/L	< 0.001	< 0.001	100
Toluene	0.001	mg/L	< 0.001	< 0.001	110
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	110
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	110
o-Xylene	0.001	mg/L	< 0.001	< 0.001	110
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	110
4-Bromofluorobenzene (surr.)	1	%	118	107	116
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	-	-
Fluoranthene	0.001	mg/L	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-

Client Sample ID			RB20170817	TB20170817	[R20]TS20170817
Sample Matrix			**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**M17-Au22059**	**M17-Au22060**	**M17-Au22061**
Date Sampled			**Aug 17, 2017**	**Aug 17, 2017**	**Aug 17, 2017**
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Naphthalene	0.001	mg/L	< 0.001	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-
2-Fluorobiphenyl (surr.)	1	%	89	-	-
p-Terphenyl-d14 (surr.)	1	%	103	-	-
Organochlorine Pesticides					
Chlordanes - Total	0.001	mg/L	< 0.001	-	-
4.4'-DDD	0.0001	mg/L	< 0.0001	-	-
4.4'-DDE	0.0001	mg/L	< 0.0001	-	-
4.4'-DDT	0.0001	mg/L	< 0.0001	-	-
a-BHC	0.0001	mg/L	< 0.0001	-	-
Aldrin	0.0001	mg/L	< 0.0001	-	-
b-BHC	0.0001	mg/L	< 0.0001	-	-
d-BHC	0.0001	mg/L	< 0.0001	-	-
Dieldrin	0.0001	mg/L	< 0.0001	-	-
Endosulfan I	0.0001	mg/L	< 0.0001	-	-
Endosulfan II	0.0001	mg/L	< 0.0001	-	-
Endosulfan sulphate	0.0001	mg/L	< 0.0001	-	-
Endrin	0.0001	mg/L	< 0.0001	-	-
Endrin aldehyde	0.0001	mg/L	< 0.0001	-	-
Endrin ketone	0.0001	mg/L	< 0.0001	-	-
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	-	-
Heptachlor	0.0001	mg/L	< 0.0001	-	-
Heptachlor epoxide	0.0001	mg/L	< 0.0001	-	-
Hexachlorobenzene	0.0001	mg/L	< 0.0001	-	-
Methoxychlor	0.0001	mg/L	< 0.0001	-	-
Toxaphene	0.01	mg/L	< 0.01	-	-
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.0001	-	-
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.0001	-	-
Vic EPA IWRG 621 Organochlorine pesticides (Total)*	0.001	mg/L	< 0.001	-	-
Vic EPA IWRG 621 Other organochlorine pesticides (Total)*	0.001	mg/L	< 0.001	-	-
Dibutylchlorendate (surr.)	1	%	102	-	-
Tetrachloro-m-xylene (surr.)	1	%	86	-	-
Heavy Metals					
Arsenic	0.001	mg/L	< 0.001	-	-
Cadmium	0.0002	mg/L	< 0.0002	-	-
Chromium	0.001	mg/L	< 0.001	-	-
Copper	0.001	mg/L	< 0.001	-	-
Lead	0.001	mg/L	< 0.001	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-
Nickel	0.001	mg/L	< 0.001	-	-
Zinc	0.005	mg/L	< 0.005	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Aug 18, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons	Sydney	Aug 18, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Aug 22, 2017	7 Day
- Method: LTM-ORG-2010 TRH C6-C36			
BTEX	Sydney	Aug 18, 2017	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Aug 22, 2017	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 22, 2017	7 Day
- Method: LTM-ORG-2130 PAH and Phenols in Water by GCMS			
Organochlorine Pesticides	Melbourne	Aug 22, 2017	7 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Melbourne	Aug 18, 2017	28 Days
- Method: LTM-MET-3040 Metals in Waters by ICP-MS			

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NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 3 SCHOOLS
Project ID: 53033

Order No.:
Report #: 559175
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 1:39 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
External Laboratory																						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
1	BH10_0.0-0.1	Aug 17, 2017		Soil	M17-Au22053	X	X		X	X	X	X	X		X	X		X	X	X		
2	BH11_0.1-0.2	Aug 17, 2017		Soil	M17-Au22054	X	X		X	X	X	X	X		X	X		X	X	X		
3	BH12_0.4-0.5	Aug 17, 2017		Soil	M17-Au22055	X	X		X	X	X	X	X		X	X		X	X	X		
4	BH13_0.1-0.2	Aug 17, 2017		Soil	M17-Au22056	X	X		X	X	X	X	X		X	X		X	X	X		
5	BH14_0.1-0.2	Aug 17, 2017		Soil	M17-Au22057	X	X		X	X	X	X	X		X	X		X	X	X		
6	QA20170817	Aug 17, 2017		Soil	M17-Au22058						X	X			X	X		X		X		
7	RB20170817	Aug 17, 2017		Water	M17-Au22059						X	X			X		X			X		
8	TB20170817	Aug 17, 2017		Water	M17-Au22060																	X
9	TS20170817	Aug 17, 2017		Water	M17-Au22061																X	

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Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
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NSW 2000

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Fax:

Received: Aug 17, 2017 1:39 PM
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Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
10	BH11_0.4-0.5	Aug 17, 2017		Soil	M17-Au22062			X														
11	BH11_0.8-0.9	Aug 17, 2017		Soil	M17-Au22063			X														
12	BH12_0.1-0.2	Aug 17, 2017		Soil	M17-Au22064			X														
13	BH12_0.9-1.0	Aug 17, 2017		Soil	M17-Au22065			X														
14	BH12_1.4-1.5	Aug 17, 2017		Soil	M17-Au22066			X														
15	BH12_1.9-2.0	Aug 17, 2017		Soil	M17-Au22067			X														
16	BH13_0.4-0.5	Aug 17, 2017		Soil	M17-Au22068			X														
17	BH13_0.9-1.0	Aug 17, 2017		Soil	M17-Au22069			X														
18	QC20170817	Aug 17, 2017		Soil	M17-Au22070			X														
19	BH12_2.3-2.4	Aug 17, 2017		Soil	M17-Au22071			X														
20	BH10_0.0-0.1	Aug 17, 2017		US Leachate	M17-Au23735						X			X	X							
21	BH11_0.0-0.2	Aug 17, 2017		US Leachate	M17-Au23736						X			X	X							

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Sample Detail						% Clay	Asbestos - WA guidelines	HOLD	pH (1:5 Aqueous extract)	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Polychlorinated Biphenyls	USA Leaching Procedure	Metals M8	BTEX	BTEX	Moisture Set	Cation Exchange Capacity	Total Recoverable Hydrocarbons	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271								X	X	X	X	X	X	X	X	X		X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X										X			X	X	X
Brisbane Laboratory - NATA Site # 20794						X																
Perth Laboratory - NATA Site # 23736																						
22	BH12_0.4-0.5	Aug 17, 2017		US Leachate	M17-Au23737						X			X	X							
23	BH13_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23738						X			X	X							
24	BH14_0.1-0.2	Aug 17, 2017		US Leachate	M17-Au23739						X			X	X							
Test Counts						5	5	10	5	5	12	7	5	5	12	7	7	6	5	7	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	84			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C10	%	109			70-130	Pass	
TRH >C10-C16	%	90			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	110			70-130	Pass	
TRH C10-C14	%	84			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	106			70-130	Pass	
Toluene	%	108			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	113			70-130	Pass	
Xylenes - Total	%	110			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	82			70-130	Pass	
Acenaphthylene	%	99			70-130	Pass	
Anthracene	%	85			70-130	Pass	
Benz(a)anthracene	%	109			70-130	Pass	
Benzo(a)pyrene	%	115			70-130	Pass	
Benzo(b&j)fluoranthene	%	96			70-130	Pass	
Benzo(g.h.i)perylene	%	107			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	107			70-130	Pass	
Dibenz(a.h)anthracene	%	113			70-130	Pass	
Fluoranthene	%	103			70-130	Pass	
Fluorene	%	98			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	110			70-130	Pass	
Naphthalene	%	92			70-130	Pass	
Phenanthrene	%	91			70-130	Pass	
Pyrene	%	102			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	103			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	100			80-120	Pass	
Copper	%	96			80-120	Pass	
Lead	%	104			80-120	Pass	
Mercury	%	96			75-125	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	102			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	M17-Au22547	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M17-Au22547	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M17-Au21707	NCP	%	102			70-130	Pass	
Acenaphthylene	M17-Au21707	NCP	%	115			70-130	Pass	
Anthracene	M17-Au21707	NCP	%	111			70-130	Pass	
Benz(a)anthracene	M17-Au21707	NCP	%	123			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene	M17-Au21707	NCP	%	104			70-130	Pass	
Benzo(b&j)fluoranthene	M17-Au21707	NCP	%	110			70-130	Pass	
Benzo(g.h.i)perylene	M17-Au21707	NCP	%	126			70-130	Pass	
Benzo(k)fluoranthene	M17-Au21707	NCP	%	111			70-130	Pass	
Chrysene	M17-Au21707	NCP	%	122			70-130	Pass	
Dibenz(a.h)anthracene	M17-Au21707	NCP	%	124			70-130	Pass	
Fluoranthene	M17-Au21707	NCP	%	121			70-130	Pass	
Fluorene	M17-Au21707	NCP	%	110			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au21707	NCP	%	130			70-130	Pass	
Naphthalene	M17-Au21707	NCP	%	107			70-130	Pass	
Phenanthrene	M17-Au21707	NCP	%	106			70-130	Pass	
Pyrene	M17-Au21707	NCP	%	120			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au21776	NCP	%	109			75-125	Pass	
Cadmium	M17-Au21776	NCP	%	97			75-125	Pass	
Chromium	M17-Au21776	NCP	%	98			75-125	Pass	
Copper	M17-Au21776	NCP	%	97			75-125	Pass	
Lead	M17-Au21776	NCP	%	105			75-125	Pass	
Mercury	M17-Au21776	NCP	%	95			70-130	Pass	
Nickel	M17-Au21776	NCP	%	98			75-125	Pass	
Zinc	M17-Au21776	NCP	%	106			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M17-Au22613	NCP	mg/L	0.76	0.76	<1	30%	Pass	
TRH >C16-C34	M17-Au22613	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	M17-Au22613	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M17-Au22613	NCP	mg/L	0.71	0.73	3.0	30%	Pass	
TRH C15-C28	M17-Au22613	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	M17-Au22613	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M17-Au21704	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au21776	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	M17-Au21776	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	M17-Au21776	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	M17-Au21776	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	M17-Au21776	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	M17-Au21776	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M17-Au21776	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	M17-Au21776	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	A17-Au20518	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	A17-Au20518	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	A17-Au20518	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	A17-Au20518	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	A17-Au20518	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	A17-Au20518	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	A17-Au20518	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	A17-Au20518	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	A17-Au20518	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
R20	This sample is a Trip Spike and therefore all results are reported as a percentage

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Harry Bacalis	Senior Analyst-Volatile (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name: **JBS & G Australia (NSW) P/L**

Contact name: Scott Burrows
Project name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Aug 17, 2017 2:24 PM
Eurofins | mgt reference: **560283**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Scott Burrows - SBurrows@jbsg.com.au.

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e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

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Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 560283
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 2:24 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Polycyclic Aromatic Hydrocarbons	USA Leaching Procedure	Metals M8
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH01 0.05-0.15	Not Provided		US Leachate	M17-Au22286	X	X	X
2	BH02 0.1-0.2	Not Provided		US Leachate	M17-Au22287	X	X	X
3	BH03 0.05-0.15	Not Provided		US Leachate	M17-Au22288	X	X	X
4	BH04 0.1-0.2	Not Provided		US Leachate	M17-Au22289	X	X	X
5	BH05 0.0-0.1	Not Provided		US Leachate	M17-Au22290	X	X	X
6	BH06 0.1-0.2	Not Provided		US Leachate	M17-Au22291	X	X	X
7	BH07 0.1-0.2	Not Provided		US Leachate	M17-Au22292	X	X	X
8	BH08 0.1-0.2	Not Provided		US Leachate	M17-Au22293	X	X	X

ABN– 50 005 085 521
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web : www.eurofins.com.au

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Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 560283
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 2:24 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Polycyclic Aromatic Hydrocarbons	USA Leaching Procedure	Metals M8
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
9	BH09 0.1-0.2	Not Provided		US Leachate	M17-Au22294	X	X	X
Test Counts						9	9	9

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **560283-L**
Project name ESA 3 SCHOOLS - GREENWICH
Project ID 52885
Received Date Aug 17, 2017

Client Sample ID **Sample Matrix** **Eurofins | mgt Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**BH01 0.05-0.15** **US Leachate** **M17-Au22286** **Not Provided**	**BH02 0.1-0.2** **US Leachate** **M17-Au22287** **Not Provided**	**BH03 0.05-0.15** **US Leachate** **M17-Au22288** **Not Provided**	**BH04 0.1-0.2** **US Leachate** **M17-Au22289** **Not Provided**
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	150	106	128	130
p-Terphenyl-d14 (surr.)	1	%	139	142	145	133
Heavy Metals						
Arsenic	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Copper	0.01	mg/L	< 0.01	< 0.01	< 0.01	0.04
Lead	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Mercury	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Nickel	0.01	mg/L	< 0.01	< 0.01	< 0.01	0.01
Zinc	0.01	mg/L	0.03	< 0.01	< 0.01	0.03
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	5.2	5.2	5.7	5.8
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.5	6.2	6.1	5.6
pH (USA HCl addition)	0.1	pH Units	1.9	1.9	1.9	2.0

Client Sample ID			BH05 0.0-0.1	BH06 0.1-0.2	BH07 0.1-0.2	BH08 0.1-0.2
Sample Matrix			US Leachate	US Leachate	US Leachate	US Leachate
Eurofins | mgt Sample No.			M17-Au22290	M17-Au22291	M17-Au22292	M17-Au22293
Date Sampled			Not Provided	Not Provided	Not Provided	Not Provided
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	99	133	101	108
p-Terphenyl-d14 (surr.)	1	%	108	128	94	131
Heavy Metals						
Arsenic	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Copper	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Lead	0.01	mg/L	< 0.01	0.01	0.02	< 0.01
Mercury	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Nickel	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Zinc	0.01	mg/L	0.18	0.02	0.04	< 0.01
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	4.8	5.3	5.4	9.6
pH (Leachate fluid)	0.1	pH Units	5.0	5.0	5.0	5.0
pH (off)	0.1	pH Units	5.0	5.1	5.0	11
pH (USA HCl addition)	0.1	pH Units	NA	1.9	1.8	2.0

Client Sample ID			BH09 0.1-0.2
Sample Matrix			US Leachate
Eurofins | mgt Sample No.			M17-Au22294
Date Sampled			Not Provided
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001

Client Sample ID			BH09 0.1-0.2
Sample Matrix			US Leachate
Eurofins | mgt Sample No.			M17-Au22294
Date Sampled			Not Provided
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH*	0.001	mg/L	< 0.001
2-Fluorobiphenyl (surr.)	1	%	122
p-Terphenyl-d14 (surr.)	1	%	116
Heavy Metals			
Arsenic	0.01	mg/L	< 0.01
Cadmium	0.005	mg/L	< 0.005
Chromium	0.01	mg/L	< 0.01
Copper	0.01	mg/L	< 0.01
Lead	0.01	mg/L	0.02
Mercury	0.001	mg/L	< 0.001
Nickel	0.01	mg/L	< 0.01
Zinc	0.01	mg/L	0.03
USA Leaching Procedure			
Leachate Fluid[C01]		comment	1.0
pH (initial)	0.1	pH Units	6.2
pH (Leachate fluid)	0.1	pH Units	5.0
pH (off)	0.1	pH Units	5.1
pH (USA HCl addition)	0.1	pH Units	2.0

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Melbourne	Aug 23, 2017	7 Day
- Method: LTM-ORG-2140 PAH and Phenols in Soils by GCMS			
Metals M8	Melbourne	Aug 21, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			

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NATA # 1261
Site # 1254 & 14271

Sydney
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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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1/21 Smallwood Place
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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

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2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 560283
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 2:24 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Polycyclic Aromatic Hydrocarbons	USA Leaching Procedure	Metals M8
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH01 0.05-0.15	Not Provided		US Leachate	M17-Au22286	X	X	X
2	BH02 0.1-0.2	Not Provided		US Leachate	M17-Au22287	X	X	X
3	BH03 0.05-0.15	Not Provided		US Leachate	M17-Au22288	X	X	X
4	BH04 0.1-0.2	Not Provided		US Leachate	M17-Au22289	X	X	X
5	BH05 0.0-0.1	Not Provided		US Leachate	M17-Au22290	X	X	X
6	BH06 0.1-0.2	Not Provided		US Leachate	M17-Au22291	X	X	X
7	BH07 0.1-0.2	Not Provided		US Leachate	M17-Au22292	X	X	X
8	BH08 0.1-0.2	Not Provided		US Leachate	M17-Au22293	X	X	X

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

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Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: JBS & G Australia (NSW) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: ESA 3 SCHOOLS - GREENWICH
Project ID: 52885

Order No.:
Report #: 560283
Phone: 02 8245 0300
Fax:

Received: Aug 17, 2017 2:24 PM
Due: Aug 24, 2017
Priority: 5 Day
Contact Name: Scott Burrows

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Polycyclic Aromatic Hydrocarbons	USA Leaching Procedure	Metals M8
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X
Sydney Laboratory - NATA Site # 18217								
Brisbane Laboratory - NATA Site # 20794								
Perth Laboratory - NATA Site # 23736								
9	BH09 0.1-0.2	Not Provided		US Leachate	M17-Au22294	X	X	X
Test Counts						9	9	9

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Arsenic			mg/L	< 0.01			0.01	Pass	
Cadmium			mg/L	< 0.005			0.005	Pass	
Chromium			mg/L	< 0.01			0.01	Pass	
Copper			mg/L	< 0.01			0.01	Pass	
Lead			mg/L	< 0.01			0.01	Pass	
Mercury			mg/L	< 0.001			0.001	Pass	
Nickel			mg/L	< 0.01			0.01	Pass	
Zinc			mg/L	< 0.01			0.01	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M17-Au23735	NCP	%	109			70-130	Pass	
Acenaphthylene	M17-Au23735	NCP	%	119			70-130	Pass	
Anthracene	M17-Au23735	NCP	%	115			70-130	Pass	
Benz(a)anthracene	M17-Au23735	NCP	%	120			70-130	Pass	
Benzo(a)pyrene	M17-Au23735	NCP	%	129			70-130	Pass	
Benzo(b&j)fluoranthene	M17-Au23735	NCP	%	115			70-130	Pass	
Benzo(g.h.i)perylene	M17-Au23735	NCP	%	121			70-130	Pass	
Benzo(k)fluoranthene	M17-Au23735	NCP	%	112			70-130	Pass	
Chrysene	M17-Au23735	NCP	%	129			70-130	Pass	
Dibenz(a.h)anthracene	M17-Au23735	NCP	%	127			70-130	Pass	
Fluoranthene	M17-Au23735	NCP	%	128			70-130	Pass	
Fluorene	M17-Au23735	NCP	%	114			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au23735	NCP	%	126			70-130	Pass	
Naphthalene	M17-Au23735	NCP	%	112			70-130	Pass	
Phenanthrene	M17-Au23735	NCP	%	104			70-130	Pass	
Pyrene	M17-Au23735	NCP	%	128			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au23737	NCP	%	104			75-125	Pass	
Cadmium	M17-Au23737	NCP	%	102			75-125	Pass	
Chromium	M17-Au23737	NCP	%	103			75-125	Pass	
Copper	M17-Au23737	NCP	%	101			75-125	Pass	
Lead	M17-Au22750	NCP	%	97			75-125	Pass	
Mercury	M17-Au23737	NCP	%	101			70-130	Pass	
Nickel	M17-Au23737	NCP	%	101			75-125	Pass	
Zinc	M17-Au23737	NCP	%	106			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au22750	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Cadmium	M17-Au22750	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chromium	M17-Au22750	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Copper	M17-Au22750	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Lead	M17-Au22750	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Mercury	M17-Au22750	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Nickel	M17-Au22750	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Zinc	M17-Au22750	NCP	mg/L	0.05	0.05	4.0	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M17-Au22291	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Alex Petridis	Senior Analyst-Organic (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

Enviro Sample Vic

From: COC NSW
Sent: Thursday, 31 August 2017 5:15 PM
To: Enviro Sample Vic
Cc: Enviro Sample NSW
Subject: FW: 1 DAY TAT ADDITIONAL: Metals missed on sample

Importance: High

Hi Guys
Please see below Additional on 1 Day TAT, sample in Melbourne. Please proceed.

Rupan Virk

From: COC NSW
Sent: Thursday, 31 August 2017 5:09 PM
To: Andrew Black; Enviro Sample NSW
Subject: RE: 1 DAY TAT ADDITIONAL: Metals missed on sample

G1005

Hey Andrew
Done as 561097, sample in Melb. Should SRA be sent as well?

From: Andrew Black
Sent: Thursday, 31 August 2017 12:24 PM
To: COC NSW; Enviro Sample NSW
Subject: 1 DAY TAT ADDITIONAL: Metals missed on sample
Importance: High

Hi Team

Unfortunately login missed doing metals on 559239 on sample Au22526. Can you please log this in as an additional job on 1 day TAT please?!

Andrew Black
Analytical Services Manager

Eurofins | mgt
Unit 7
7 Friesian Close
SANDGATE NSW 2304
AUSTRALIA
Phone : +61 2 9900 8490
Mobile : +61 410 220 750

Email : AndrewBlack@eurofins.com
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MF

561124 31/8
12:24 PM

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Phone : +61 3 8564 5000
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Site # 1254 & 14271

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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NATA # 1261 Site # 20794

Perth
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Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**JBS & G Australia (NSW) P/L**
Contact name:	Scott Burrows
Project name:	THREE SCHOOLS ESA
Project ID:	53033
COC number:	Not provided
Turn around time:	1 Day
Date/Time received:	Aug 31, 2017 12:24 PM
Eurofins | mgt reference:	**561124**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ Sample Temperature of a random sample selected from the batch as recorded by Eurofins | mgt Sample Receipt : 14 degrees Celsius.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to Scott Burrows - SBurrows@jbsg.com.au.

Certificate of Analysis

JBS & G Australia (NSW) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Scott Burrows**

Report **561124-S**
Project name THREE SCHOOLS ESA
Project ID 53033
Received Date Aug 31, 2017

Client Sample ID			**QA20170818**
Sample Matrix			**Soil**
Eurofins | mgt Sample No.			**M17-Au37877**
Date Sampled			**Aug 18, 2017**
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	2	mg/kg	3.9
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	8.3
Copper	5	mg/kg	6.6
Lead	5	mg/kg	9.3
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	19
% Moisture	1	%	11

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Metals M8	Melbourne	Aug 31, 2017	28 Days
- Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)			
% Moisture	Melbourne	Aug 31, 2017	14 Day
- Method: LTM-GEN-7080 Moisture			

ABN– 50 005 085 521
e.mail : EnviroSales@eurofins.com
web : www.eurofins.com.au

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	JBS & G Australia (NSW) P/L	**Order No.:**		**Received:**	Aug 31, 2017 12:24 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	561124	**Due:**	Sep 1, 2017
		Phone:	02 8245 0300	**Priority:**	1 Day
		Fax:		**Contact Name:**	Scott Burrows
Project Name:	THREE SCHOOLS ESA				
Project ID:	53033				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	QA20170818	Aug 18, 2017		Soil	M17-Au37877	X	X
Test Counts						1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	105			80-120	Pass	
Cadmium	%	106			80-120	Pass	
Chromium	%	115			80-120	Pass	
Copper	%	119			80-120	Pass	
Lead	%	102			80-120	Pass	
Mercury	%	113			75-125	Pass	
Nickel	%	120			80-120	Pass	
Zinc	%	113			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M17-Au31259	NCP	%	93			75-125	Pass	
Cadmium	M17-Au31259	NCP	%	95			75-125	Pass	
Chromium	M17-Au31259	NCP	%	103			75-125	Pass	
Copper	M17-Au31259	NCP	%	108			75-125	Pass	
Lead	M17-Au31259	NCP	%	106			75-125	Pass	
Mercury	M17-Au31259	NCP	%	118			70-130	Pass	
Nickel	M17-Au31259	NCP	%	107			75-125	Pass	
Zinc	M17-Au31259	NCP	%	150			75-125	Fail	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M17-Au31259	NCP	mg/kg	3.5	3.5	1.0	30%	Pass	
Cadmium	M17-Au31259	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	M17-Au31259	NCP	mg/kg	15	15	2.0	30%	Pass	
Copper	M17-Au31259	NCP	mg/kg	17	17	1.0	30%	Pass	
Lead	M17-Au31259	NCP	mg/kg	35	35	1.0	30%	Pass	
Mercury	M17-Au31259	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M17-Au31259	NCP	mg/kg	8.3	8.4	<1	30%	Pass	
Zinc	M17-Au31259	NCP	mg/kg	130	140	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	M17-Au37061	NCP	%	15	14	4.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Nibha Vaidya	Analytical Services Manager
Alex Petridis	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)

Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

Appendix L Proposed Development Plans

NSW DEPARTMENT OF EDUCATION
GREENWICH PUBLIC SCHOOL REDEVELOPMENT

32 KINGSLANGLEY ROAD, GREENWICH

DRAWING INDEX - DA				
PROJECT No.	LOCATION CODE	STATUS	SHEET	TITLE
1. ARCHITECTURAL - DA				
21-26108-28	GK	DA	DA-AR-0000	COVER SHEET, LOCALITY PLAN & DRAWING LIST
21-26108-28	GK	DA	DA-AR-0011	EXISTING SITE CONDITIONS - SITE ANALYSIS
21-26108-28	GK	DA	DA-AR-0050	NOTIFICATION DRAWING
21-26108-28	GK	DA	DA-AR-0100	EXISTING SITE CONDITIONS
21-26108-28	GK	DA	DA-AR-0300	SITE DEMOLITION PLAN
21-26108-28	GK	DA	DA-AR-0302	PROPOSED SITE PLAN
21-26108-28	GK	DA	DA-AR-0500	PHOTOMONTAGE
21-26108-28	GK	DA	DA-AR-1010	SITE ELEVATIONS STREETSCAPE
21-26108-28	GK	DA	DA-AR-2000	GENERAL ARRANGEMENT - LEVEL 1
21-26108-28	GK	DA	DA-AR-2001	GENERAL ARRANGEMENT - LEVEL 2
21-26108-28	GK	DA	DA-AR-2002	GENERAL ARRANGEMENT - LEVEL 3
21-26108-28	GK	DA	DA-AR-2004	GENERAL ARRANGEMENT - ROOF
21-26108-28	GK	DA	DA-AR-3000	NORTH & SOUTH ELEVATIONS
21-26108-28	GK	DA	DA-AR-3001	EAST AND WEST ELEVATIONS
21-26108-28	GK	DA	DA-AR-3100	BUILDING SECTION
21-26108-28	GK	DA	DA-AR-5000	BUILDING FABRIC FINISHES SCHEDULE
21-26108-28	GK	DA	DA-AR-9000	SITE SHADOW DIAGRAMS
2. LANDSCAPE - DA				
21-26108-28	GK	DA	DA-LA-0001	LANDSCAPE GENERAL ARRANGEMENT PLAN
3.CIVIL - DA				
21-26108-28	GK	DA	DA-CI-1010	STORM WATER PLAN
21-26108-28	GK	DA	DA-CI-1015	STORM WATER DETAILS
21-26108-28	GK	DA	DA-CI-1030	EARTHWORKS PLAN
21-26108-28	GK	DA	DA-CI-1035	EROSION AND SEDIMENT CONTROL PLAN

LOCATION MAP - NTS

PRELIMINARY

No	Revision	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	AA	PM	MD	28.08.2017

Note: * indicates signatures on original issue of drawing or last revision of drawing

N

NSW GOVERNMENT Education

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Drawn	A. ARIMADO	Designer	D.CHEONG
Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 1750	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE
Title COVER SHEET, LOCALITY PLAN & DRAWING LIST

Original Size **A1** Drawing No: **21-26108 - GK - DA-AR-0000** Rev: **A**

Plot Date: 28/08/2017 4:14:22 PM

Cad File No: C:\Users\dscheong\Documents\Revit 2017 Local Files\2126108_Greenwich_Campus 2_6_ARCH_dscheong.rvt

LEGEND

SITE BOUNDARY LINE

ADJACENT LOT LINE

RESIDENTIAL

WINTER SUN

COOL WINTER WINDS IN THE MORNING

EXISTING ENTRY

SUN PATH

KINGSLANGLEY ROAD

RIVER ROAD

ROAD

SITE SLOPE

DEMOUNTABLES x8

CARPARK

BUILDING A

TOILETS

HOMEBASE X2

COLA

CONCRETE PATH

DEMOUNTABLES

SPORTSFIELD

EXISTING ENTRY

VEHICULAR NOISE

COOL WINTER WINDS IN THE AFTERNOON

N 6,255,708.095 m
E 331,869.901 m

BOUNDARY FENCE

WATER TANK

N 6,255,748.704 m
E 331,860.861 m

EXISTING HALL

EXISTING METAL FENCE

SITE SLOPE

N 6,255,700.012 m
E 331,832.582 m

MASONRY RETAINING WALL

PLAY AREA

BALFOUR ST

BOUNDARY FENCE

TENNIS COURT

CRICKET NETS

SITE SLOPE

N 6,255,756.918 m
E 331,805.811 m

N 6,255,608.375 m
E 331,781.720 m

BOUNDARY FENCE

KINGSLANGLEY ROAD

HOT SUMMER WINDS IN THE MORNING

SUMMER SUN

STANDISH STREET

EXISTING SITE CONDITIONS - SITE ANALYSIS

SCALE 1 : 500

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

0 5 10 15 20 25 m

SCALE 1: 500 AT ORIGINAL SIZE

N

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Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	M. DEAN		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	As indicated	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION

Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE

Title EXISTING SITE CONDITIONS - SITE ANALYSIS

Original Size A1

Drawing No: 21-26108 - GK - DA-AR-0011 Rev: A

Plot Date: 28/08/2017 4:14:29 PM

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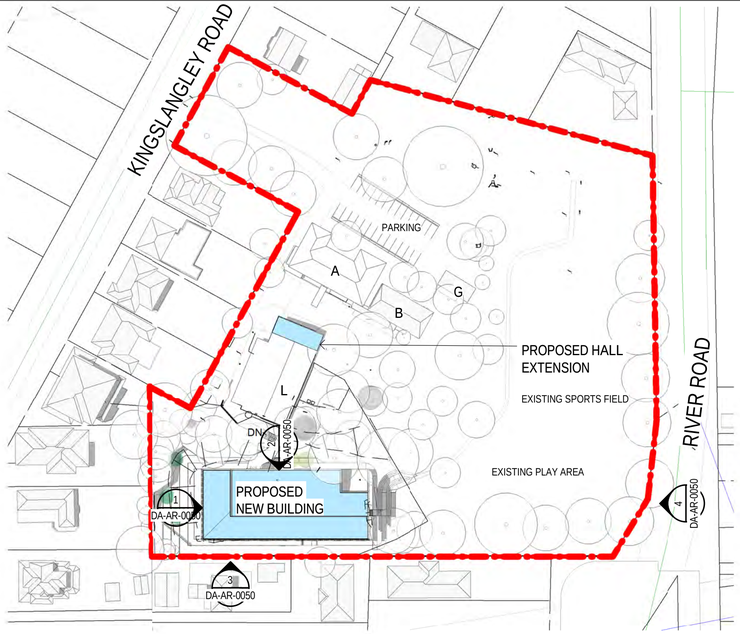
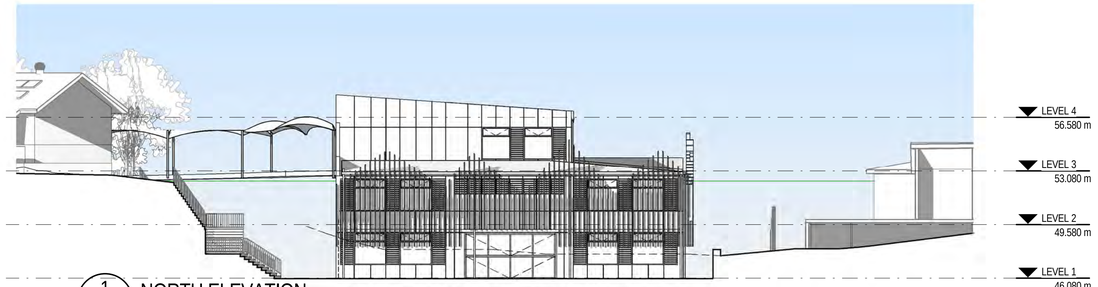


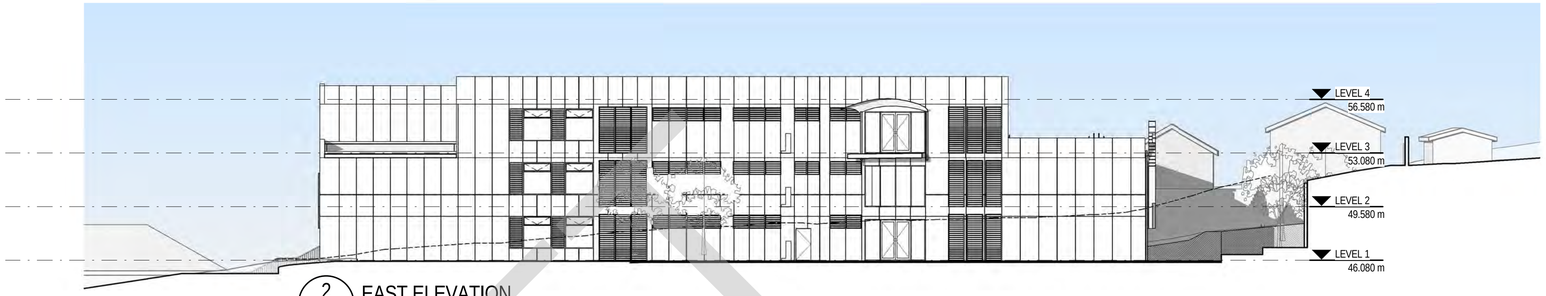
NOTIFICATION SITE PLAN
SCALE 1 : 1000

LEGEND

A	EXISTING ADMIN BUILDING
B	OOSH AND CANTEEN
L	EXISTING HALL
G	EXISTING TOILETS

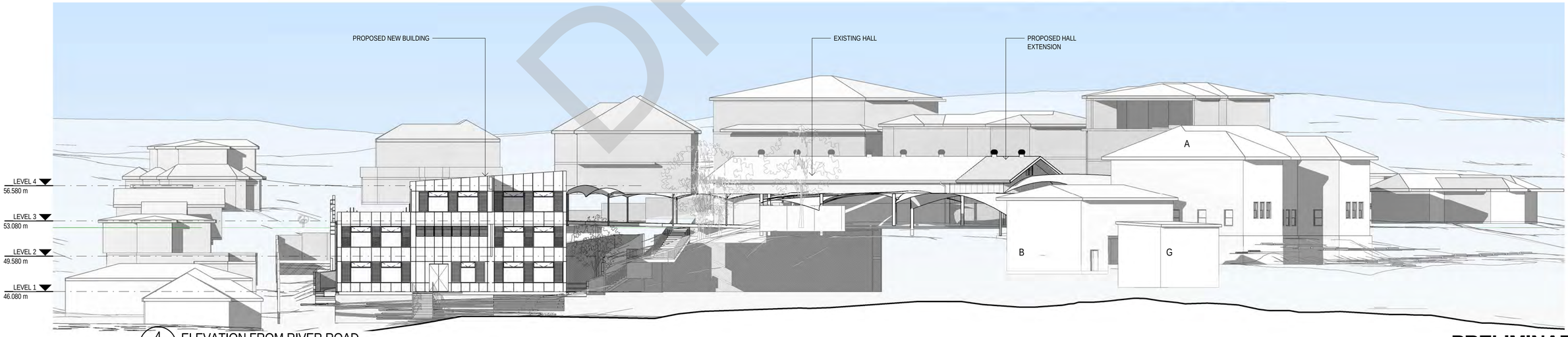


1 AR-2500 NORTH ELEVATION
SCALE 1 : 200



2 AR-2500 EAST ELEVATION
SCALE 1 : 200

3 AR-2500 WEST ELEVATION
SCALE 1 : 200



4 AR-2500 ELEVATION FROM RIVER ROAD
SCALE 1 : 200

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

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SCALE 1: 200 AT ORIGINAL SIZE

0 10 20 30 40 50 m
SCALE 1: 1000AT ORIGINAL SIZE

N

NSW GOVERNMENT Education

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Drawn	A. ARIMADO	Designer	D.CHEONG
Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	As indicated	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE
Title **NOTIFICATION DRAWING**

Original Size **A1**
Drawing No: **21-26108 - GK - DA-AR-0050**
Rev: **A**

Plot Date: 28/08/2017 4:15:36 PM
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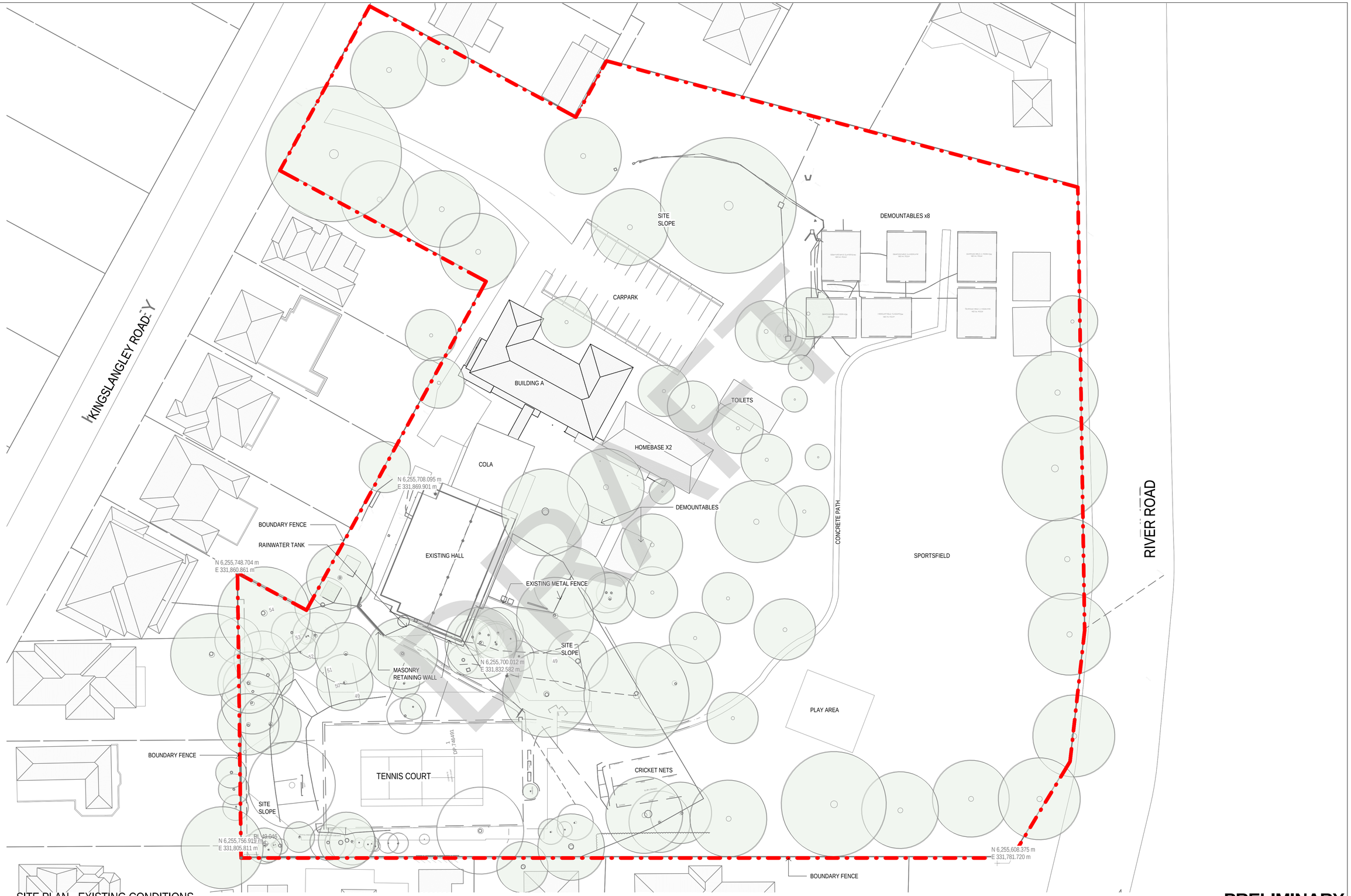

SITE PLAN - EXISTING CONDITIONS

SCALE 1 : 350

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		RR	PM	MD	28.08.2017

0 3.5 7 10.5 14 17.5m

SCALE 1: 350 AT ORIGINAL SIZE

N

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Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M. DEAN		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 350	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION

Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
ARCHITECTURE

Title EXISTING SITE CONDITIONS

Original Size A1

Drawing No: 21-26108 - GK - DA-AR-0100 Rev: A

Plot Date: 28/08/2017 4:15:40 PM

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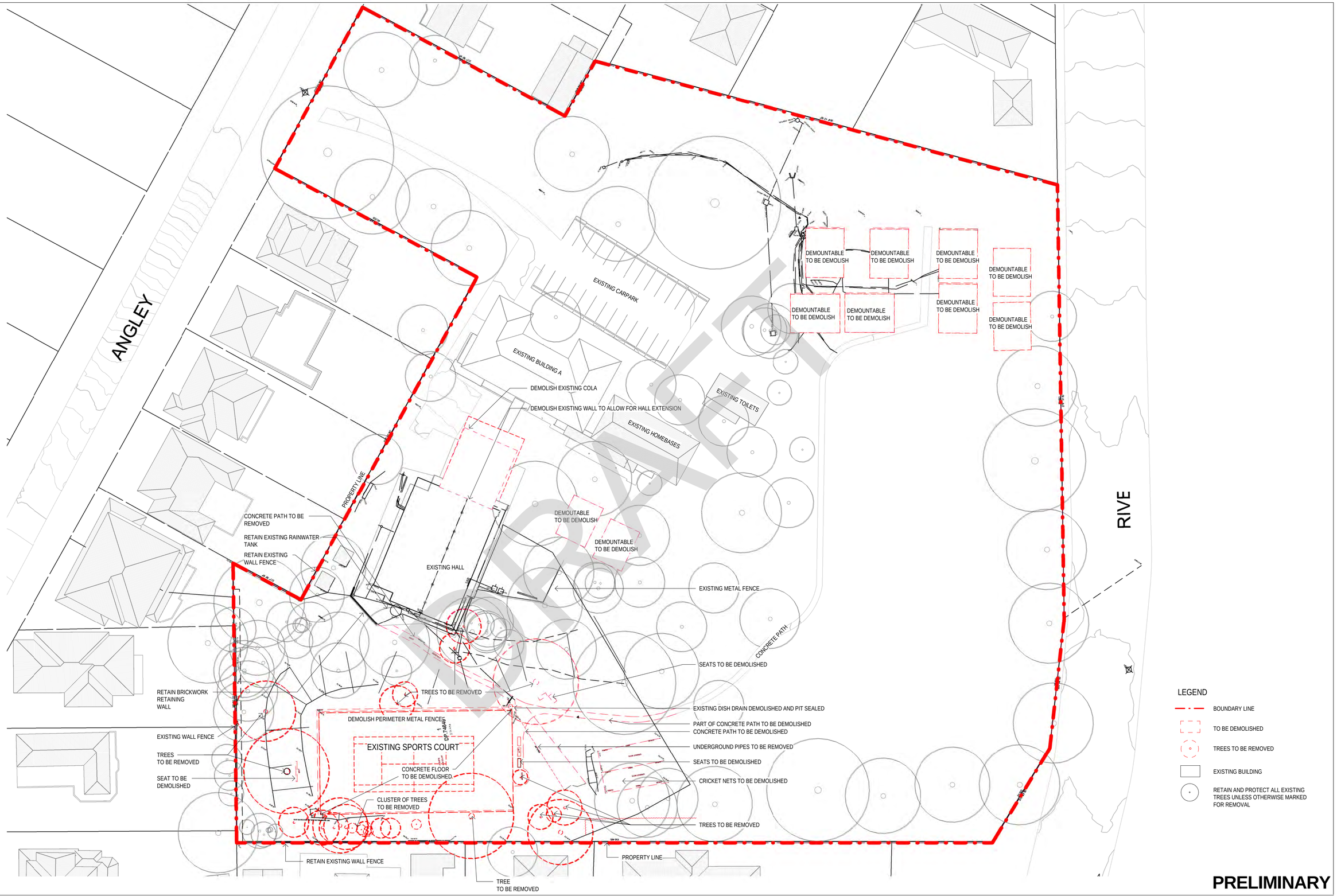

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	AA	PM	MD	Date
			Drawn	Job Manager	Project Director	

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SCALE 1: 350 AT ORIGINAL SIZE

NSW GOVERNMENT Education

TSA MANAGEMENT

SITE PLAN (DEMOLITION)
SCALE 1 : 350

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Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	As indicated	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE
Title SITE DEMOLITION PLAN

Original Size A1
Drawing No: 21-26108 -GK - DA-AR-0300
Rev:

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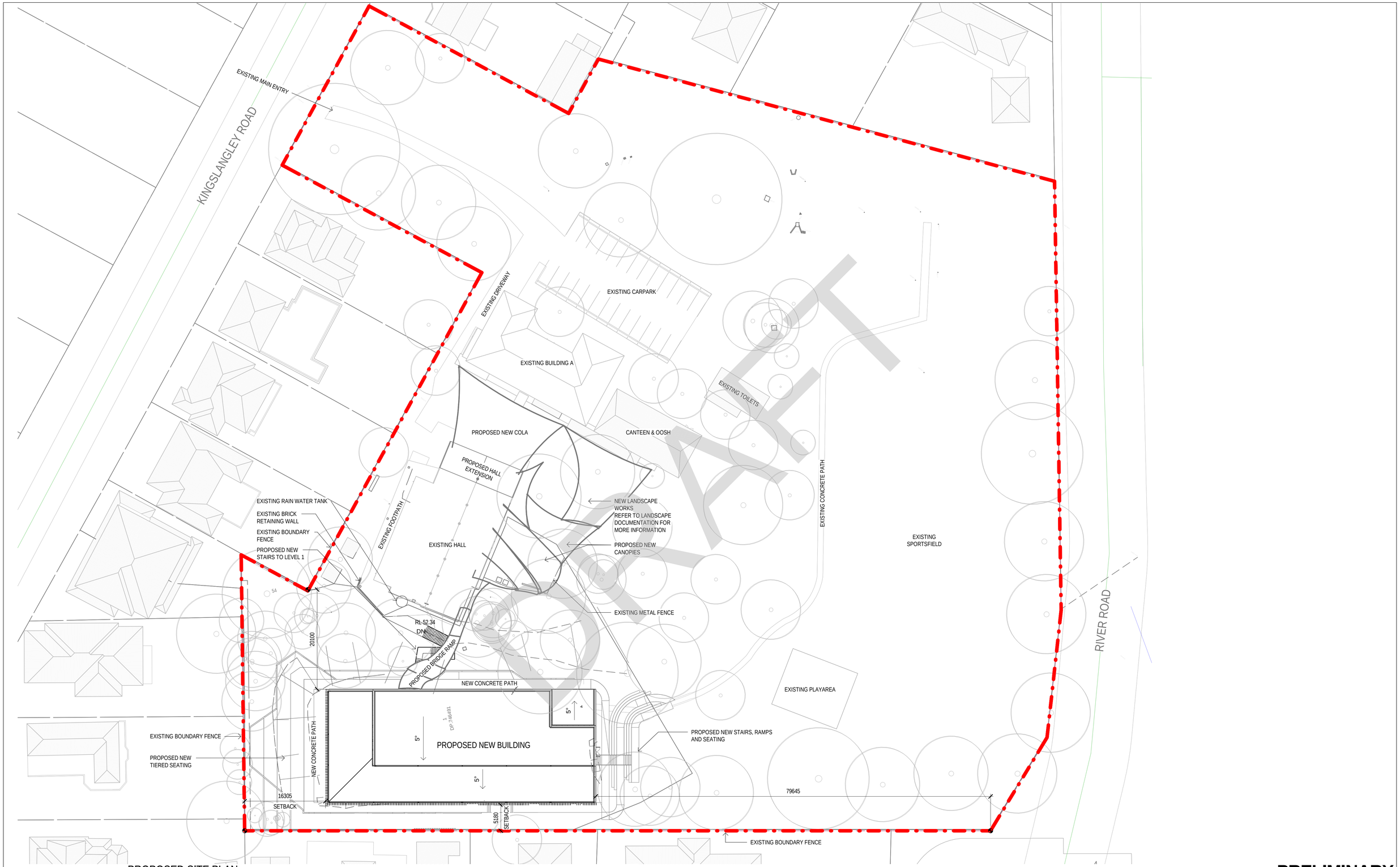

PROPOSED SITE PLAN

SCALE 1 : 350

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

0 3.5 7 10.5 14 17.5m

SCALE 1: 350 AT ORIGINAL SIZE

N

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E sydmail@ghd.com **W** www.ghd.com

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Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 350	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**

Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE

Title **PROPOSED SITE PLAN**

Original Size **A1**

Drawing No: 21-26108 - GK - DA-AR-0302 **Rev: A**

Plot Date: 28/08/2017 4:15:59 PM

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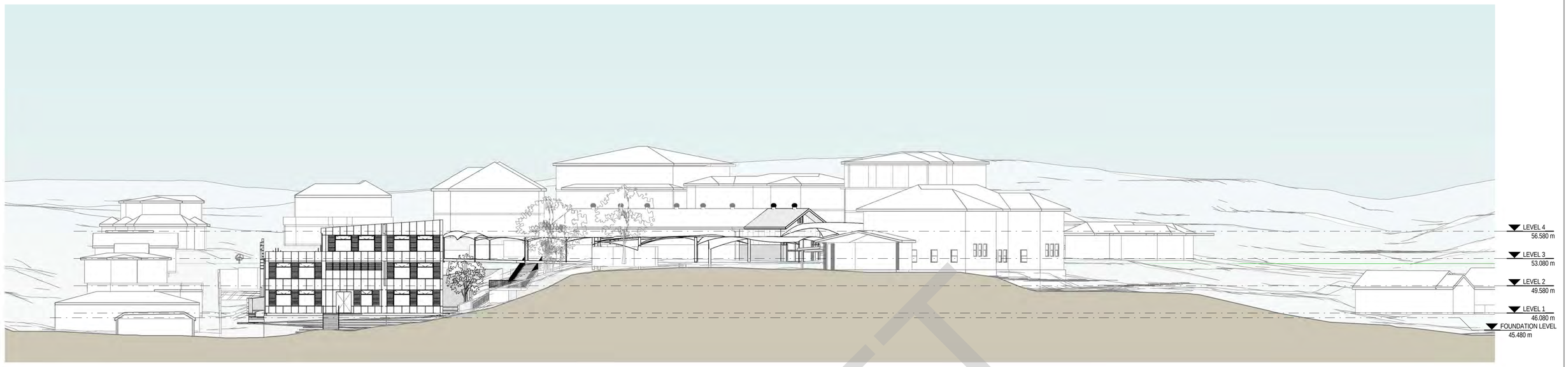
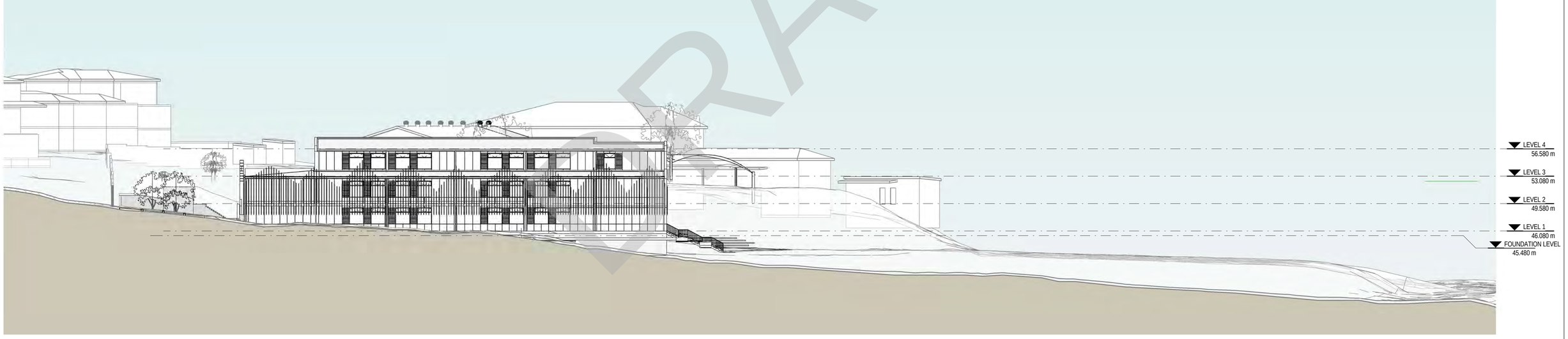


1 AR-2500 ELEVATION FROM RIVER ROAD
SCALE 1 : 250



2 AR-2500 WEST ELEVATION
SCALE 1 : 250

PRELIMINARY

No	Revision	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	AA	PM	MD	28.08.2017

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 2500 5000 7500 10000 12500mm
SCALE 1:250 AT ORIGINAL SIZE

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Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 250	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE
Title SITE ELEVATIONS STREETSCAPE

Original Size A1
Drawing No: 21-26108 - GK - DA-AR-1010
Rev: A

Plot Date: 28/08/2017 4:16:16 PM
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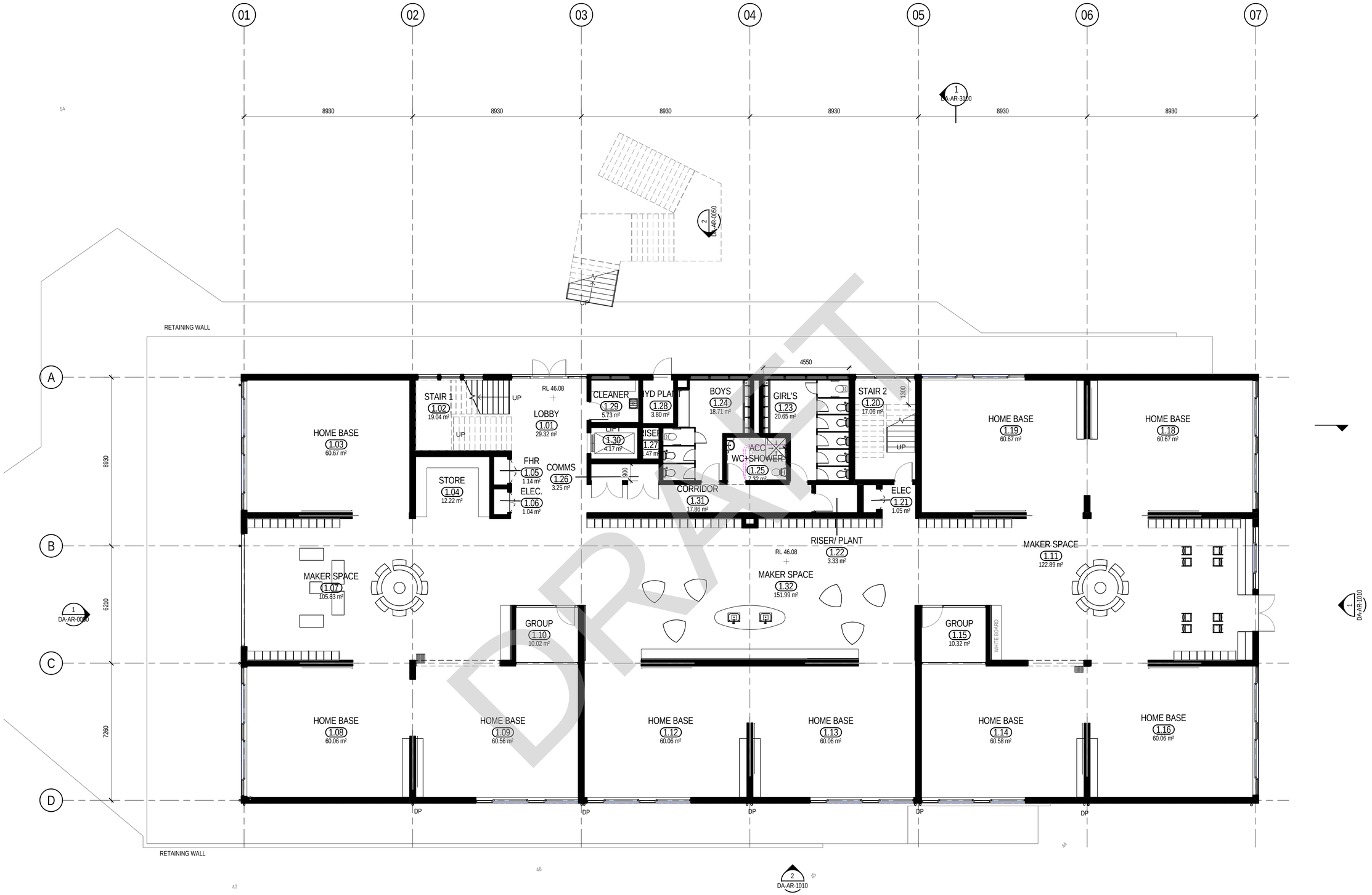

LEVEL 1 - GENERAL ARRANGEMENT PLAN

SCALE 1 : 100

PRELIMINARY

No	Revision				
A	ISSUED FOR REVIEW	AA	PM	MD	28.08.2017
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date

0 1000 2000 3000 4000 5000mm

SCALE 1: 100 AT ORIGINAL SIZE

N

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Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE
Title **GENERAL ARRANGEMENT - LEVEL 1**

Original Size **A1** Drawing No: **21-26108 - GK - DA-AR-2000** Rev: **A**

Plot Date: 28/08/2017 4:16:19 PM

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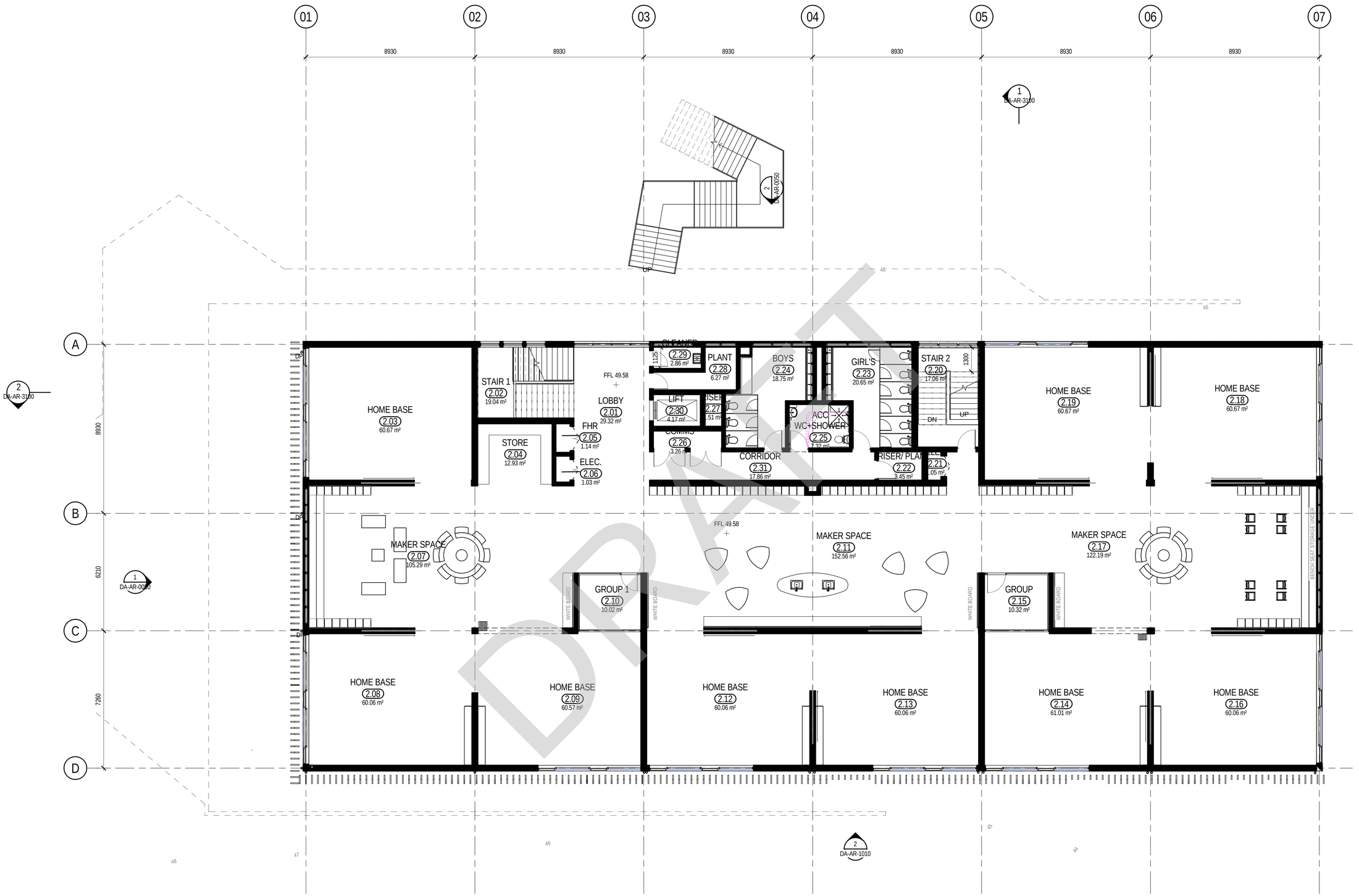

LEVEL 2 - GENERAL ARRANGEMENT PLAN

SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

0 1000 2000 3000 4000 5000mm

SCALE 1: 100 AT ORIGINAL SIZE

N

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Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**

Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE

Title **GENERAL ARRANGEMENT - LEVEL 2**

Original Size **A1**

Drawing No: **21-26108 - GK - DA-AR-2001**

Rev: **A**

Plot Date: 28/08/2017 4:16:22 PM

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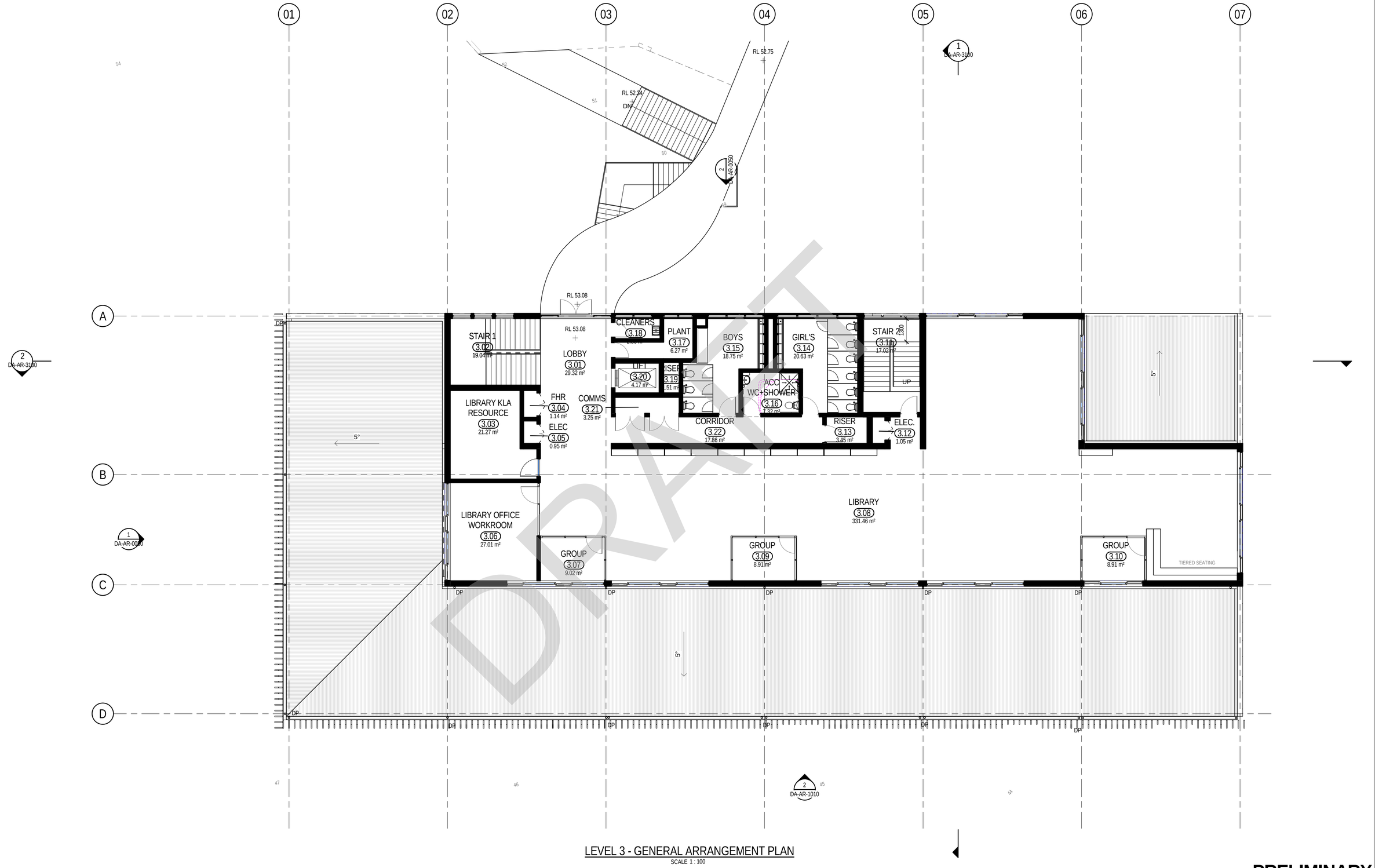

LEVEL 3 - GENERAL ARRANGEMENT PLAN

SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

0 1000 2000 3000 4000 5000mm
SCALE 1: 100 AT ORIGINAL SIZE

N

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Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE
Title GENERAL ARRANGEMENT - LEVEL 3

Original Size A1
Drawing No: 21-26108 - GK - DA-AR-2002
Rev: A

Plot Date: 28/08/2017 4:16:23 PM
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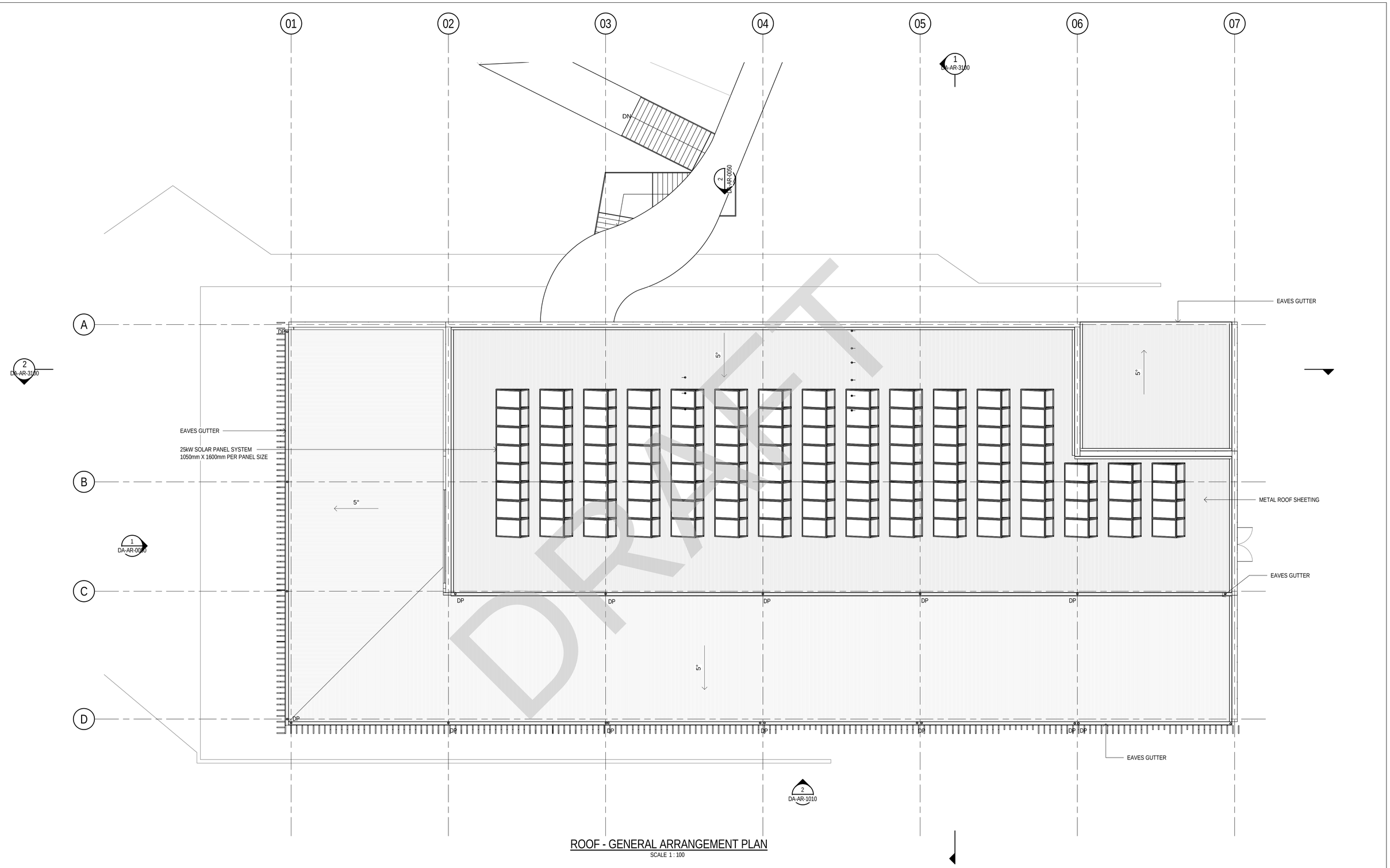

ROOF - GENERAL ARRANGEMENT PLAN

SCALE 1 : 100

PRELIMINARY

No	Revision	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	AA	PM	MD	28.08.2017

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 1000 2000 3000 4000 5000mm
SCALE 1: 100 AT ORIGINAL SIZE

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Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE
Title **GENERAL ARRANGEMENT - ROOF**

Original Size **A1**
Drawing No: 21-26108 - GK - DA-AR-2004 **Rev: A**

Plot Date: 28/08/2017 4:16:25 PM

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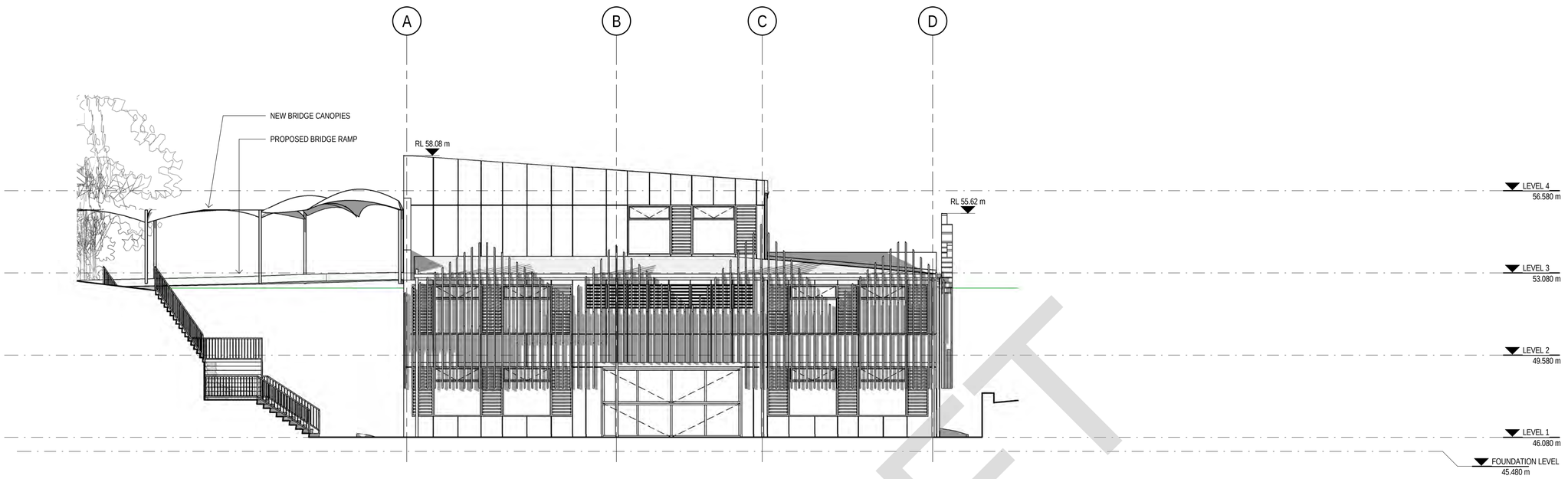
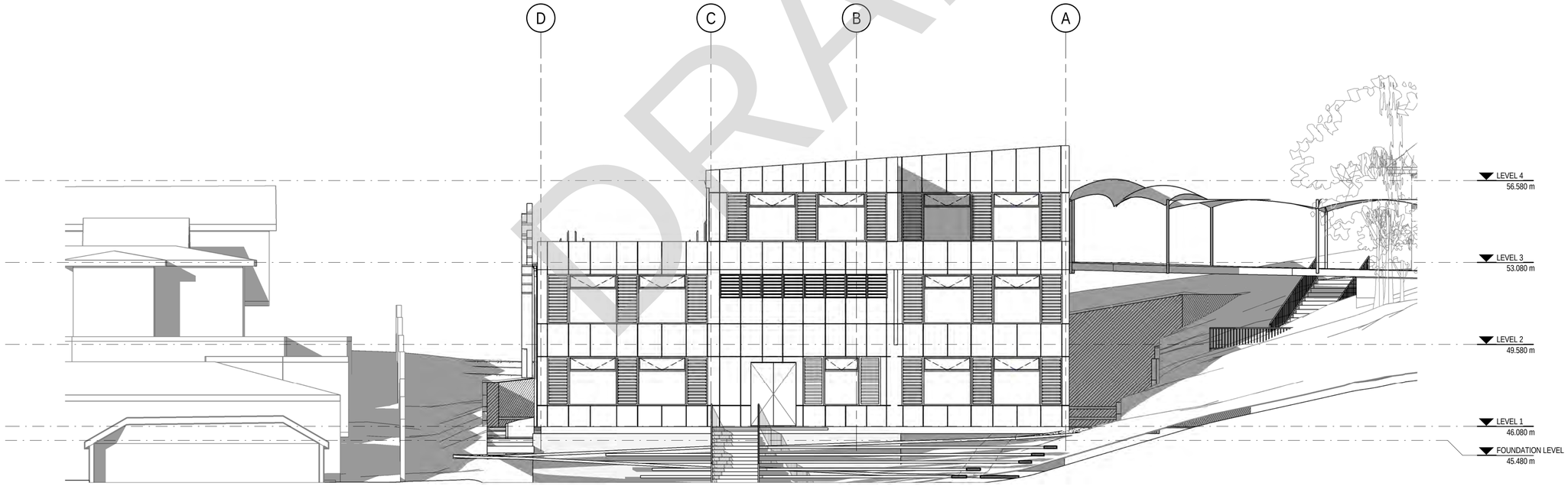


1 NORTH ELEVATION
SCALE 1 : 100



2 SOUTH ELEVATION
SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

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Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE
Title **NORTH & SOUTH ELEVATIONS**

Original Size **A1**
Drawing No: 21-26108 - GK - DA-AR-3000 **Rev: A**

Plot Date: 28/08/2017 4:16:47 PM
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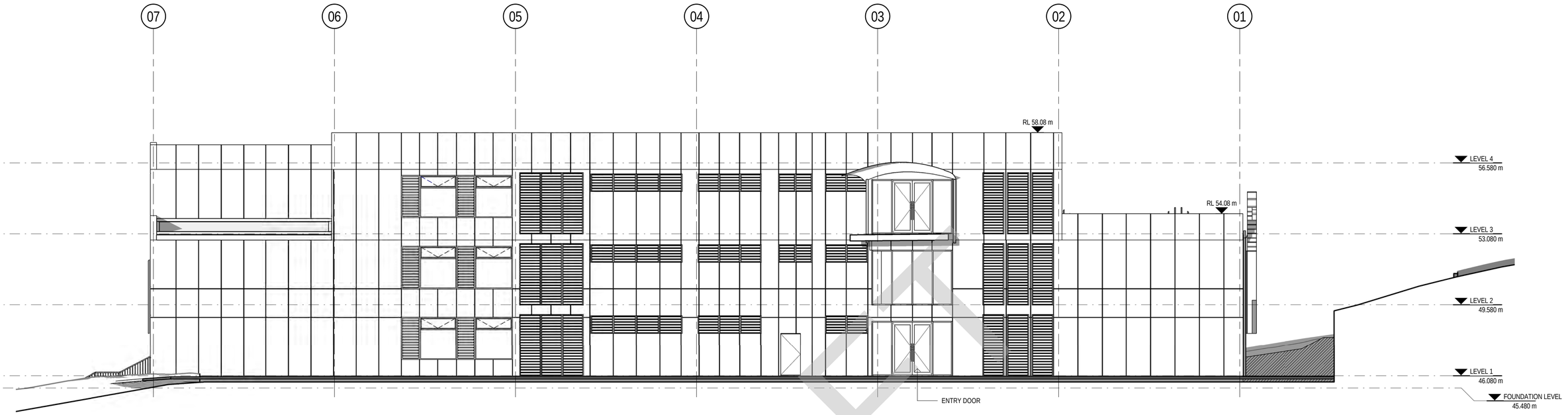
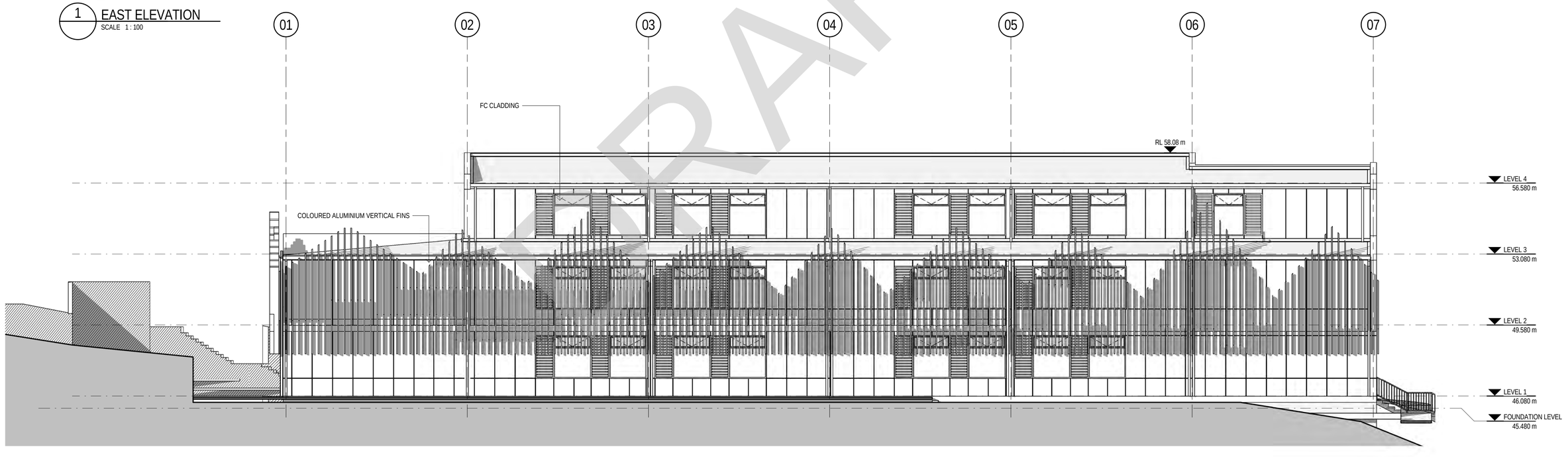


1 EAST ELEVATION
SCALE 1 : 100



2 WEST ELEVATION
SCALE 1 : 100

PRELIMINARY

No	Revision	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	AA	PM	MD	28.08.2017

Note: * indicates signatures on original issue of drawing or last revision of drawing

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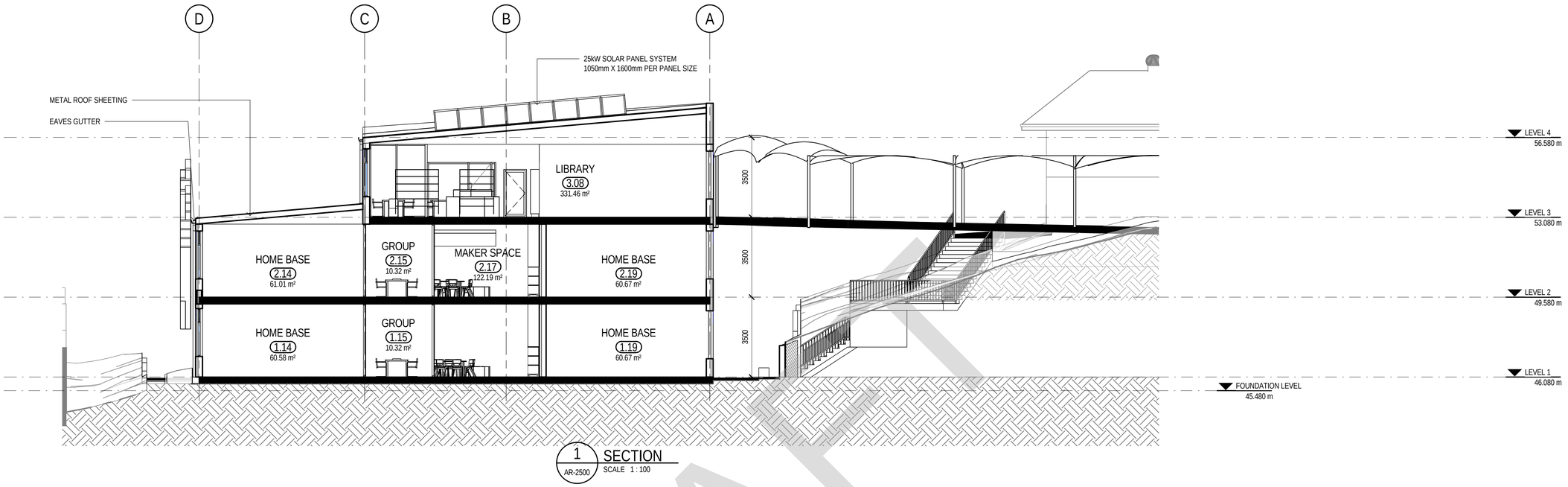
Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

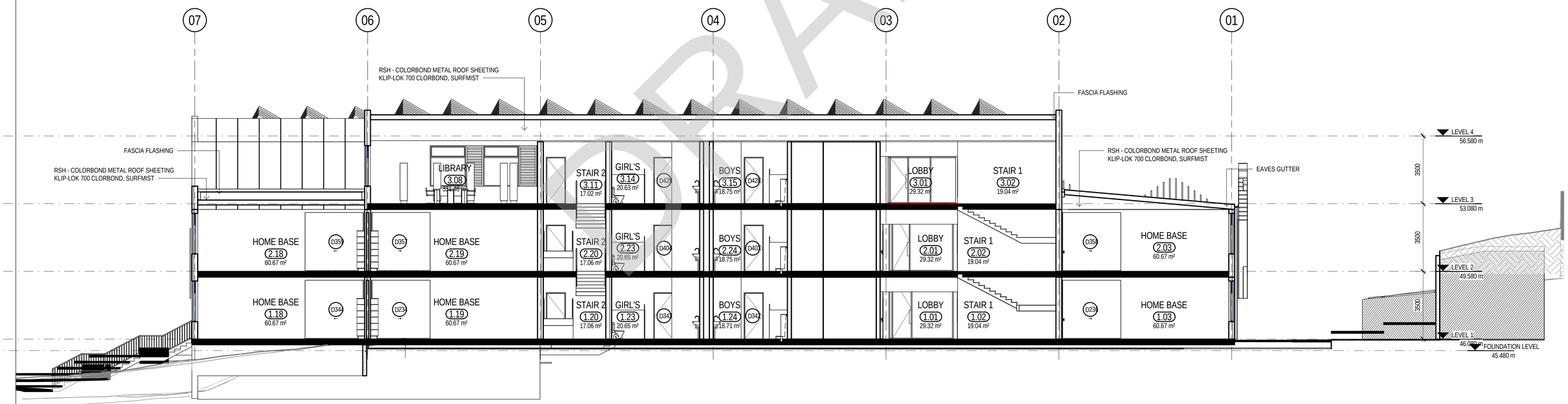
Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE
Title **EAST AND WEST ELEVATIONS**

Original Size **A1**
Drawing No: 21-26108 - GK - DA-AR-3001 **Rev: A**

Plot Date: 28/08/2017 4:17:12 PM
Cad File No: C:\Users\dscheong\Documents\Revit 2017 Local Files\2126108_Greenwich_Campus 2_6_ARCH_dscheong.rvt



1 SECTION
AR-2500 SCALE 1 : 100



2 SECTION
AR-2500 SCALE 1 : 100

PRELIMINARY

No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	AA Drawn	PM Job Manager	MD Project Director	Date

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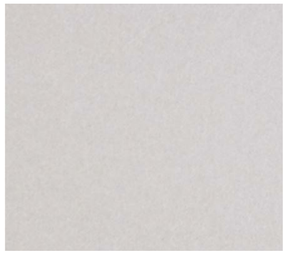
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE
Title BUILDING SECTION

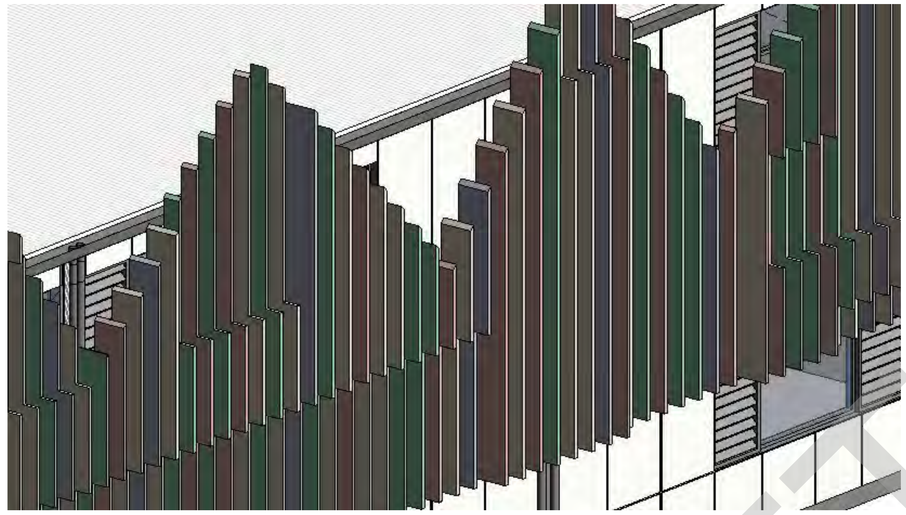
Original Size A1 Drawing No: 21-26108 - GK - DA-AR-3100 Rev:

Plot Date: 28/08/2017 4:17:15 PM
Cad File No: C:\Users\dscheong\Documents\Revit 2017 Local Files\2126108_Greenwich_Campus 2_6_ARCH_dscheong.rvt

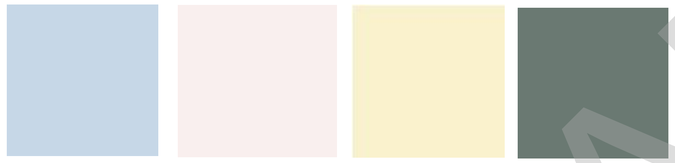
EXTERIOR WALL FINISHES



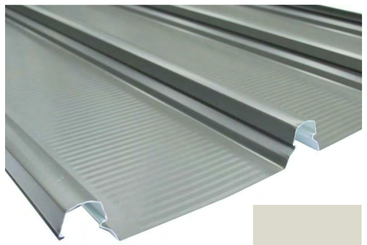
FC CLADDING PANELS - OFF WHITE



ALUMINIUM VERTICAL FINS IN MUTED TONES



ROOFING



RSH - COLORBOND METAL ROOF SHEETING
KLIP-LOK 700 CLORBOND, SURFMIST

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
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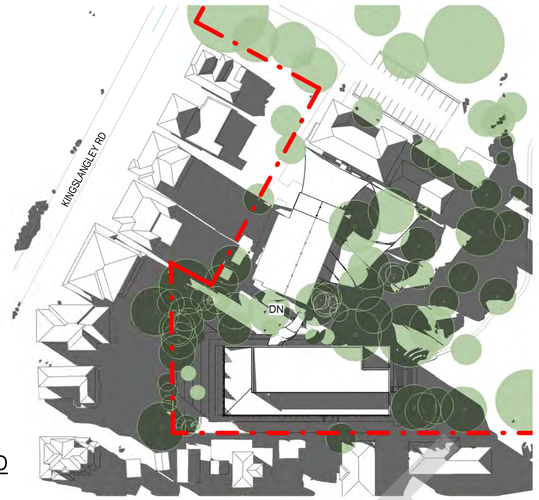
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
KINGSLANGLEY ROAD SITE
Title BUILDING FABRIC FINISHES SCHEDULE

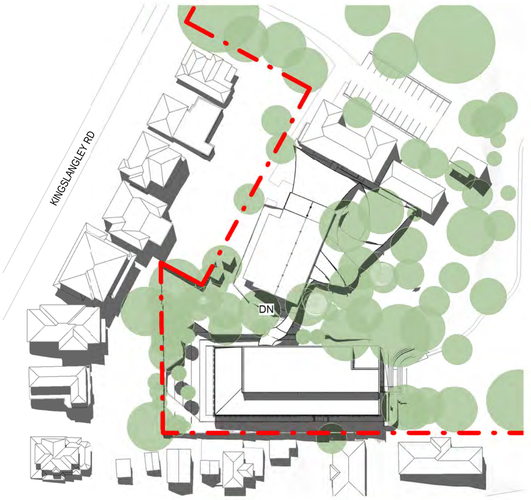
Original Size **A1** **Drawing No: 21-26108 - GK - DA-AR-5000** **Rev: A**

Plot Date: 28/08/2017 4:17:16 PM
Cad File No: C:\Users\dscheong\Documents\Revit 2017 Local Files\2126108_Greenwich_Campus 2_6_ARCH_dscheong.rvt

22 JUNE 9AM - EXISTING
SCALE 1 : 1000



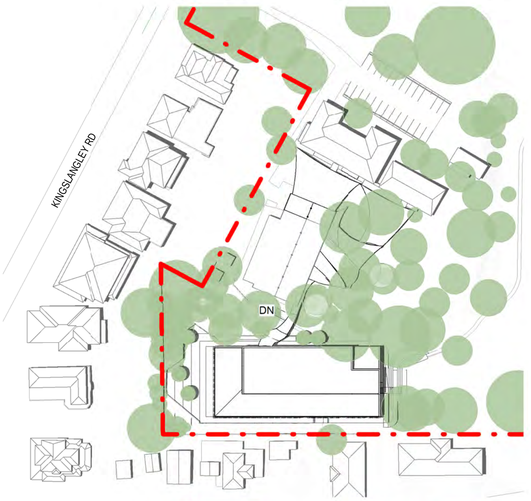
22 JUNE 9AM - PROPOSED
SCALE 1 : 1000



22 DECEMBER 9AM - PROPOSED
SCALE 1 : 1000

22 JUNE 12PM - EXISTING
SCALE 1 : 1000

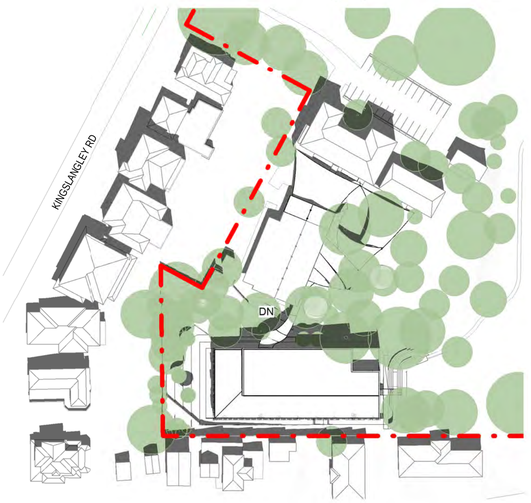
22 JUNE 12PM - PROPOSED
SCALE 1 : 1000



22 DECEMBER 12PM - PROPOSED
SCALE 1 : 1000

22 JUNE 3PM - EXISTING
SCALE 1 : 1000

22 JUNE 3PM - PROPOSED
SCALE 1 : 1000



22 DECEMBER 3PM - PROPOSED
SCALE 1 : 1000

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		AA	PM	MD	28.08.2017

0 10 20 30 40 50 m
SCALE 1: 1000AT ORIGINAL SIZE

N

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DO NOT SCALE

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Drafting Check	A.MACLEAN	Design Check	A. MILLER
Approved (Project Director)	P. MACCHIA		
Nominated / Responsible Architect	ALLAN MILLER		
Scale	1 : 1000	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
KINGSLANGLEY ROAD SITE
Title **SITE SHADOW DIAGRAMS**

Original Size **A1**
Drawing No: **21-26108 - GK - DA-AR-9000**
Rev: **A**

Plot Date: 28/08/2017 4:17:54 PM
Cad File No: C:\Users\dscheong\Documents\Revit 2017 Local Files\2126108_Greenwich_Campus 2_6_ARCH_dscheong.rvt

NSW DEPARTMENT OF EDUCATION
GREENWICH PUBLIC SCHOOL REDEVELOPMENT

70A GREENWICH ROAD, GREENWICH

DRAWING INDEX - DA

PROJECT No.	LOCATION CODE	SHEET	TITLE	REV.
1. ARCHITECTURAL - DA				
21-26108-01	GR	DA-AR-0000	COVER SHEET AND LIST OF DRAWINGS	A
21-26108-01	GR	DA-AR-0011	EXISTING SITE CONDITIONS - SITE ANALYSIS	A
21-26108-01	GR	DA-AR-0050	NOTIFICATION DRAWING	A
21-26108-01	GR	DA-AR-0300	SITE DEMOLITION PLAN	A
21-26108-01	GR	DA-AR-0302	PROPOSED SITE PLAN	A
21-26108-01	GR	DA-AR-0500	PHOTOMONTAGE	A
21-26108-01	GR	DA-AR-1010	SITE ELEVATIONS STREETSCAPE	A
21-26108-01	GR	DA-AR-1011	SITE ELEVATIONS STREETSCAPE	A
21-26108-01	GR	DA-AR-2101	GENERAL ARRANGEMENT - LEVEL 1	A
21-26108-01	GR	DA-AR-2102	GENERAL ARRANGEMENT - LEVEL 2	A
21-26108-01	GR	DA-AR-2103	GENERAL ARRANGEMENT - ROOF	A
21-26108-01	GR	DA-AR-3000	NORTH & SOUTH ELEVATIONS	A
21-26108-01	GR	DA-AR-3001	EAST AND WEST ELEVATIONS	A
21-26108-01	GR	DA-AR-3100	SECTIONS - SHEET 1	A
21-26108-01	GR	DA-AR-5000	BUILDING FABRIC FINISHES SCHEDULE	A
21-26108-01	GR	DA-AR-9001	SITE SHADOW DIAGRAMS	A
2. LANDSCAPE - DA				
21-26108-01	GR	DA-LA-0001	GENERAL ARANGEMENT PLAN	A
21-26108-01	GR	DA-LA-0002	HARDSCAPE AND SOFTSCAPE PALLETE	A
3. CIVIL - DA				
21-26108-01	GR	DA-CI-1110	STORMWATER DRAINAGE PLAN	A
21-26108-01	GR	DA-CI-1115	STORMWATER DRAINAGE DETAILS	A
21-26108-01	GR	DA-CI-1130	EARTHWORKS PLAN	A
21-26108-01	GR	DA-CI-1135	EROSION AND SEDIMENT CONTROL PLAN	A
21-26108-01	GR	DA-CI-1136	SEDIMENT CONTROL DEVICES	A

LOCATION MAP - NTS

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

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E sydmail@ghd.com **W** www.ghd.com

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Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	This Drawing must not be used for Construction unless signed as Approved		

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **COVER SHEET AND LIST OF DRAWINGS**

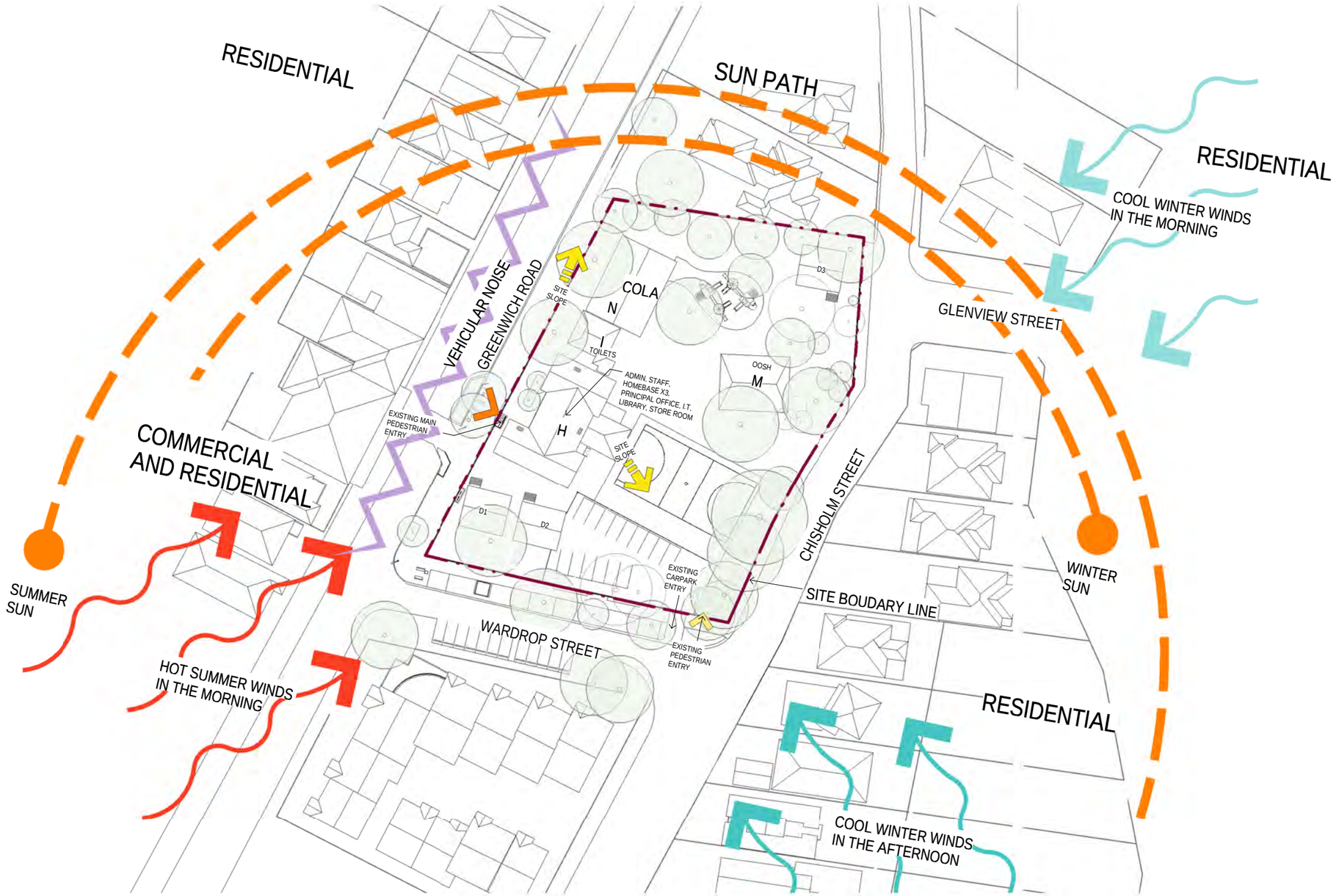
Original Size **A1** **Drawing No:** **21-26108 -GR- DA-AR-0000** **Rev:** **A**

Plot Date: 23/08/2017 6:04:44 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt

LEGEND

H	ADMIN, STAFF, HOMEBASE X3, PRINCIPAL OFFICE, I.T, LIBRARY, STORE ROOM
I	TOILETS
N	COLA
M	OOSH
D1-D3	DEMOUNTABLES HOMEBASES
	SITE BOUNDARY LINE



EXISTING SITE CONDITIONS PLAN

SCALE 1 : 500

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 5 10 15 20 25 m
SCALE 1:500 AT ORIGINAL SIZE

N

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Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 500	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS
Title EXISTING SITE CONDITIONS - SITE ANALYSIS

Original Size A1 **Drawing No:** 21-26108 - GR- DA-AR-0011 **Rev:** A

Plot Date: 23/08/2017 6:04:55 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt

NOTIFICATION SITE PLAN

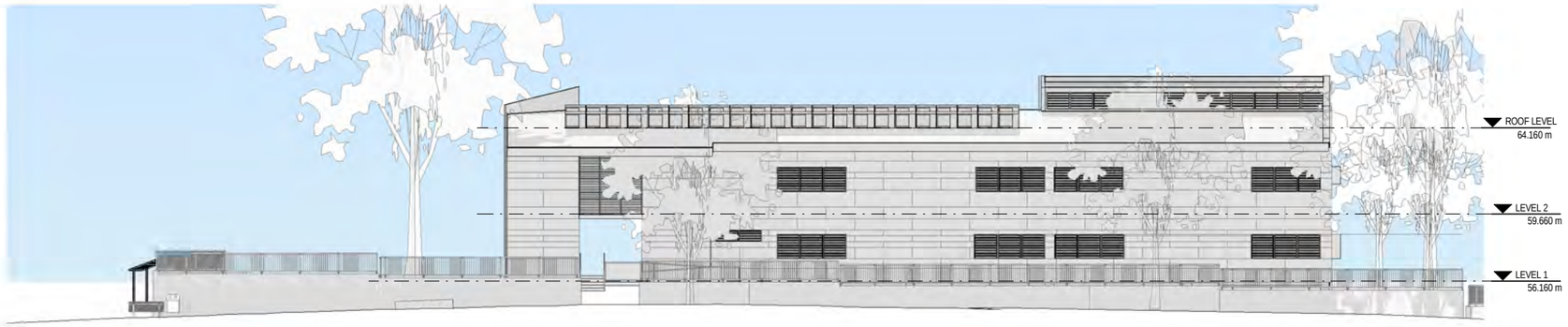
SCALE 1 : 1000

LEGEND

H	ADMIN, STAFF, HOMEBASE X3, PRINCIPAL OFFICE, I.T, LIBRARY, STORE ROOM
I	TOILETS
N	COLA
M	OOSH
D1-D3	DEMOUNTABLES HOMEBASES

NORTH FACING ELEVATION

SCALE 1 : 150

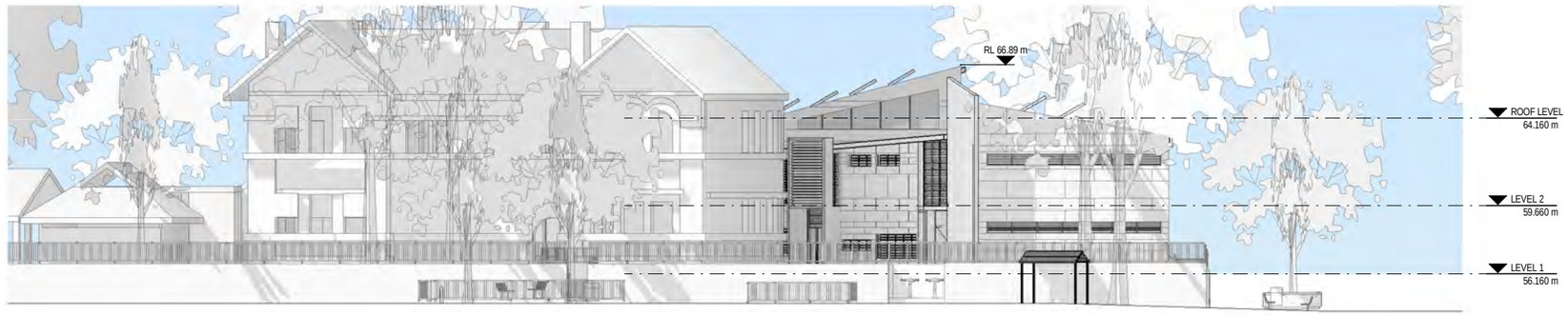


ELEVATION FROM WARDROPT ST

SCALE 1 : 150

ELEVATION FROM CHISHOLM ST - FACING EAST

SCALE 1 : 150



ELEVATION FROM GREENWICH ROAD - FACING WEST

SCALE 1 : 150

PRELIMINARY

No	Revision	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	L.L	P.M	M.W	23.08.17

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0 1500 3000 4500 6000 7500mm
SCALE 1: 150 AT ORIGINAL SIZE

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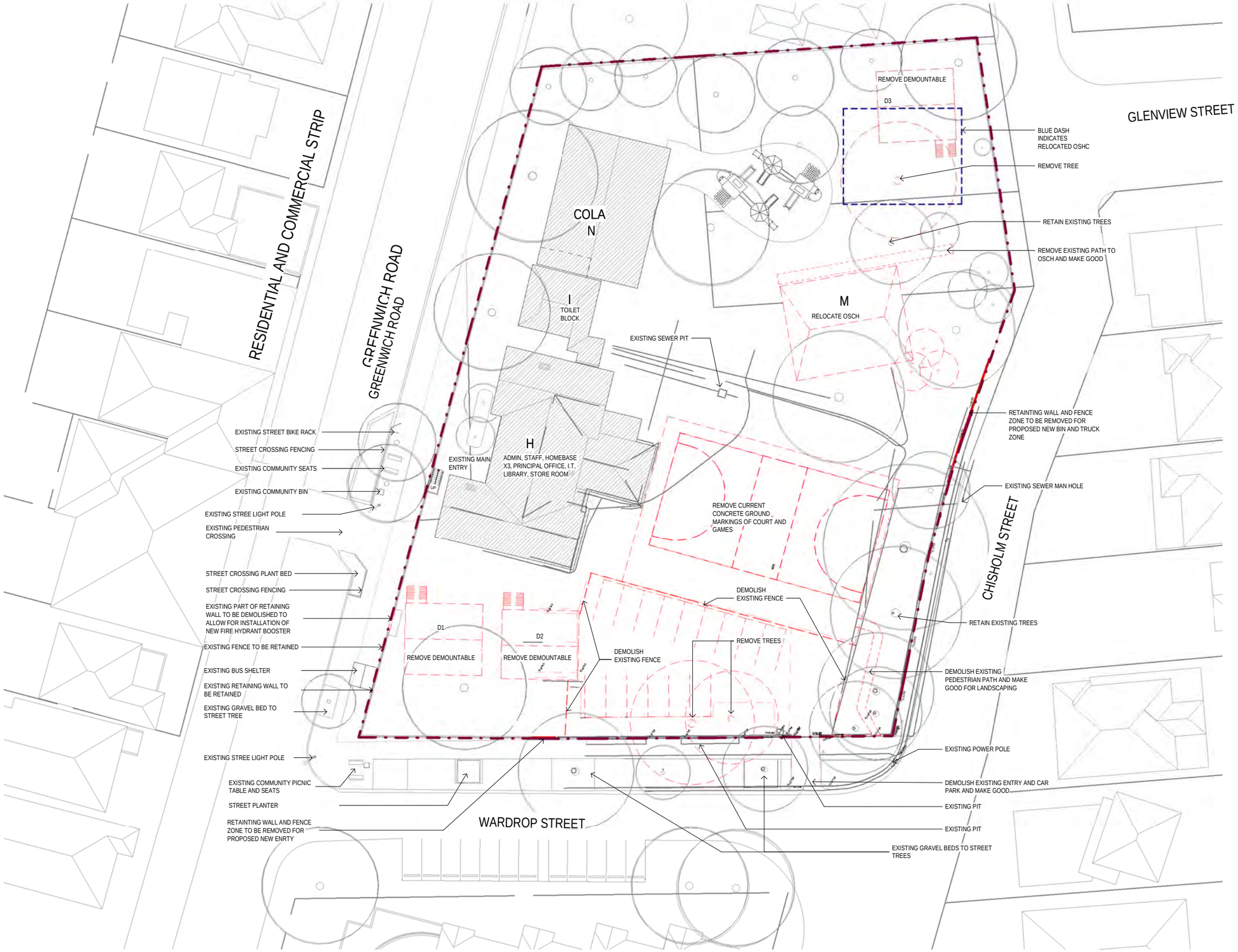
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	As indicated	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS
Title NOTIFICATION DRAWING

Original Size A1 **Drawing No:** 21-26108 - GR - DA-AR-0050 **Rev:** A

Plot Date: 23/08/2017 6:05:37 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



SITE DEMOLITION PLAN

SCALE 1 : 250

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 2500 5000 7500 10000 12500mm

SCALE 1: 250 AT ORIGINAL SIZE

N

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Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	As indicated	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **SITE DEMOLITION PLAN**

Original Size **A1** **Drawing No: 21-26108 - GR - DA-AR-0300** **Rev: A**

Plot Date: 23/08/2017 6:05:49 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt

PROPOSED SITE PLAN

SCALE 1 : 250

PRELIMINARY

No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
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Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 250	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **PROPOSED SITE PLAN**

Original Size **A1** Drawing No: **21-26108 - GR- DA-AR-0302** Rev: **A**

Plot Date: 23/08/2017 6:06:20 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt

VIEW FROM WARDROP AND CHISHOLM ST

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
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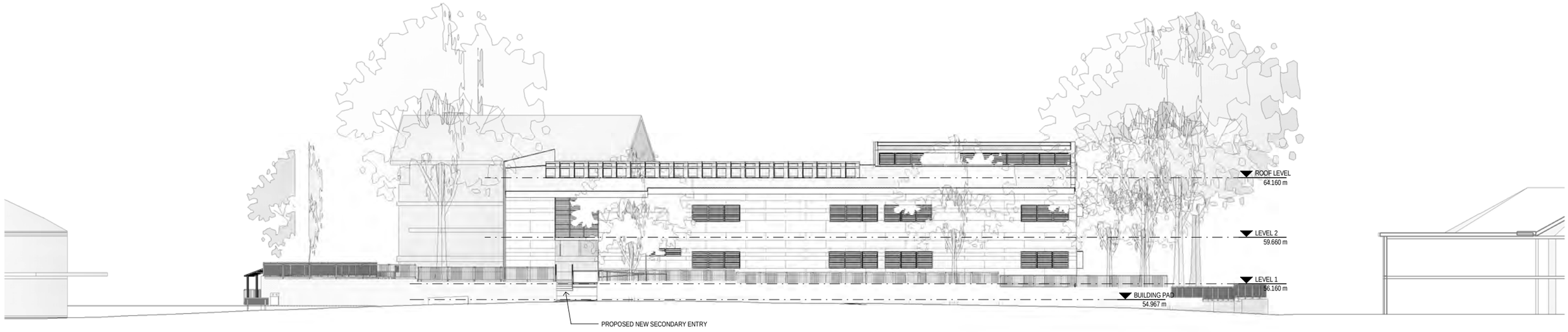
Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	This Drawing must not be used for Construction unless signed as Approved		

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **PHOTOMONTAGE**

Original Size **A1**
Drawing No: 21-26108 - GR - DA-AR-0500 **Rev: A**

Plot Date: 23/08/2017 6:06:29 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



ELEVATION FROM WARDROP ST

SCALE 1 : 150

ELEVATION FROM CHISHOLM ST

SCALE 1 : 150

PRELIMINARY

No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	L.L	P.M	M.W	23.08.17

0 2000 4000 6000 8000 10000mm

SCALE 1: 200 AT ORIGINAL SIZE

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Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 150	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION

Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS

Title SITE ELEVATIONS STREETSCAPE

Original Size **A1**

Drawing No: 21-26108 - GR - DA-AR-1010 **Rev: A**

Plot Date: 23/08/2017 6:07:06 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt

ELEVATION VIEW FROM GREENWICH ROAD

SCALE 1 : 150

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 2000 4000 6000 8000 10000mm
SCALE 1: 200 AT ORIGINAL SIZE

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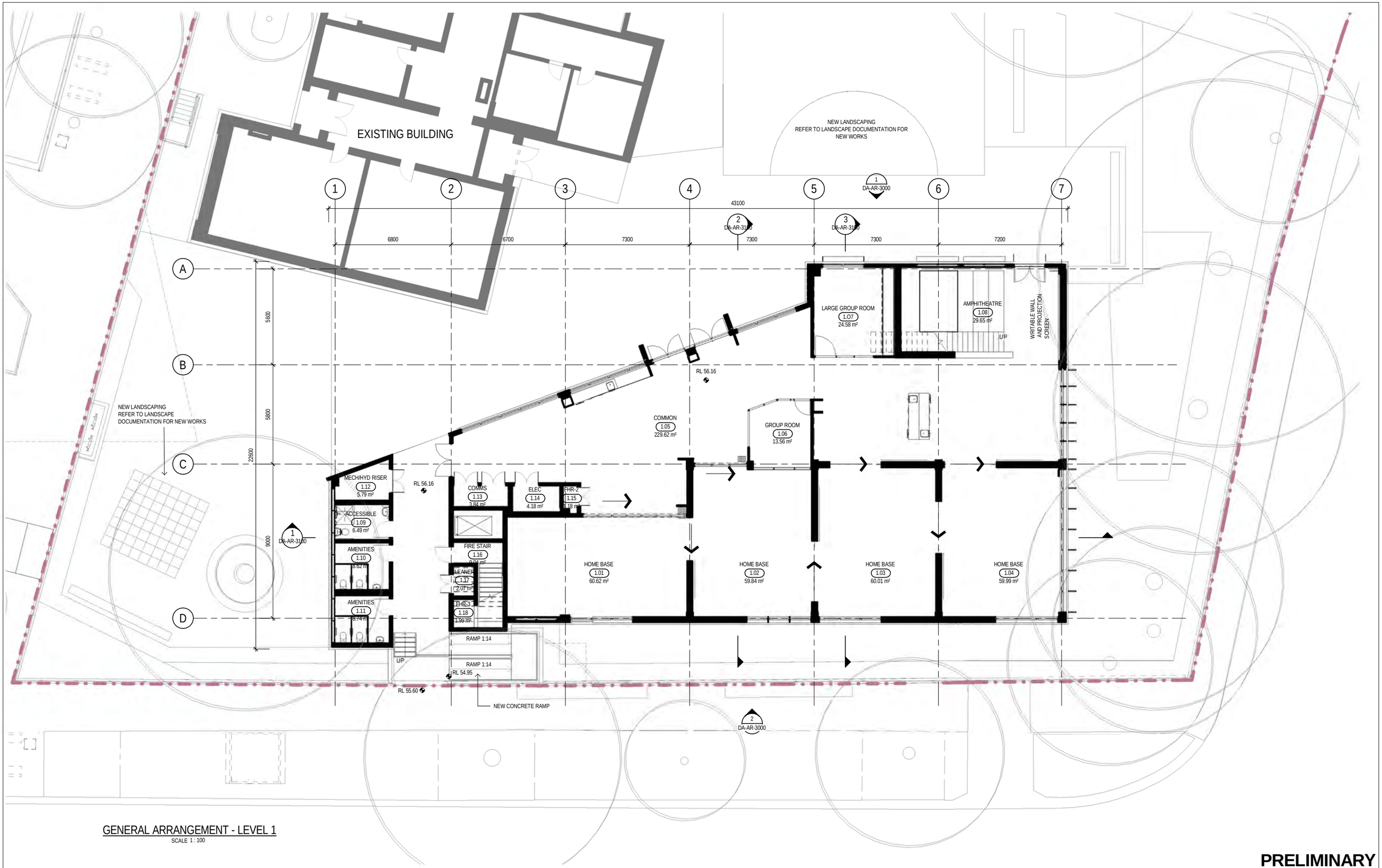
Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 150	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS
Title SITE ELEVATIONS STREETSCAPE

Original Size **A1**
Drawing No: 21-26108 - GR- DA-AR-1011 **Rev: A**

Plot Date: 23/08/2017 6:07:35 PM
Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



GENERAL ARRANGEMENT - LEVEL 1

SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 1000 2000 3000 4000 5000mm

SCALE 1: 100 AT ORIGINAL SIZE

N

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Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**

Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS

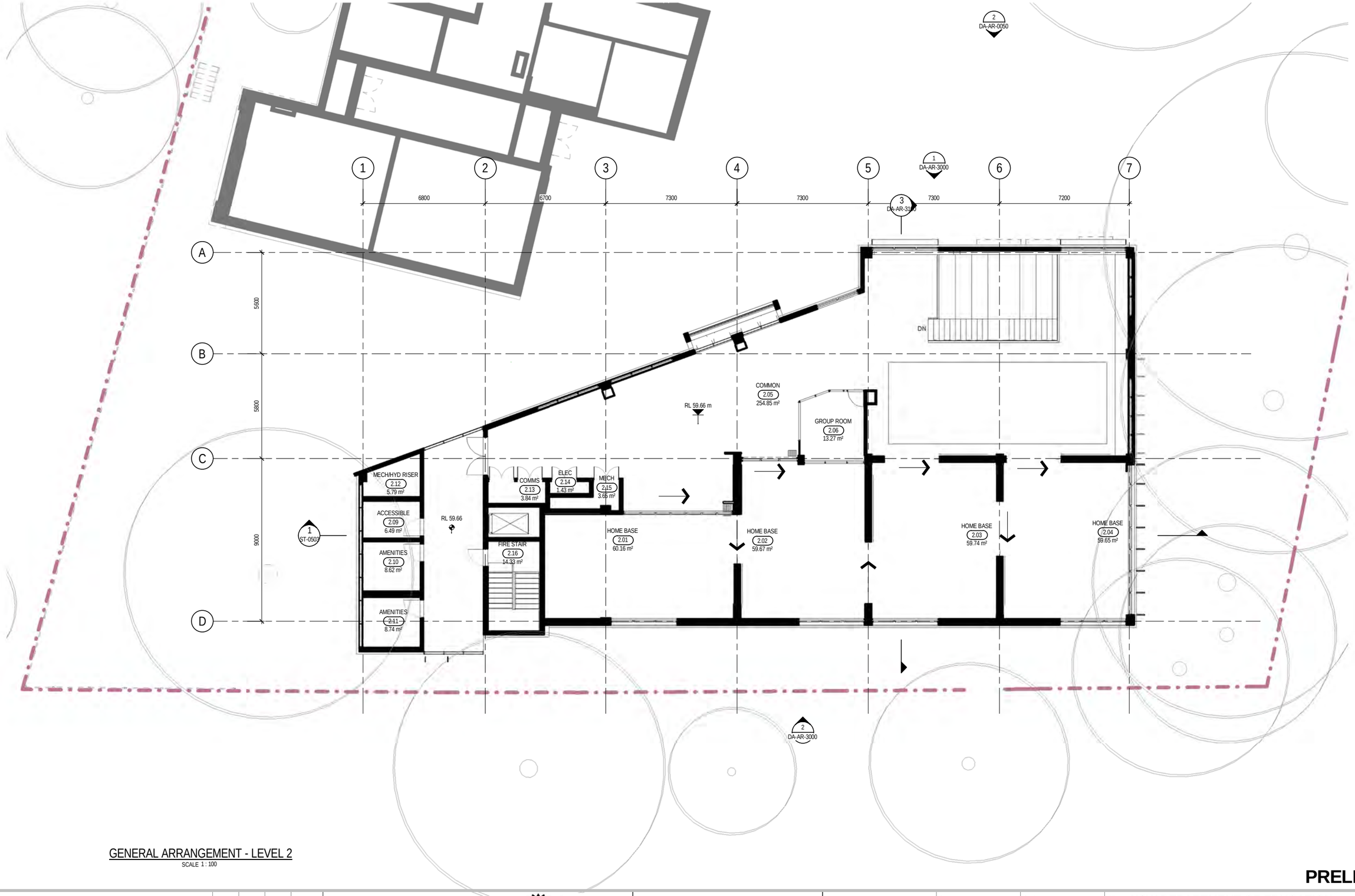
Title **GENERAL ARRANGEMENT - LEVEL 1**

Original Size **A1**

Drawing No: 21-26108 - GR - DA-AR-2101 **Rev: A**

Plot Date: 23/08/2017 6:07:51 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



GENERAL ARRANGEMENT - LEVEL 2

SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

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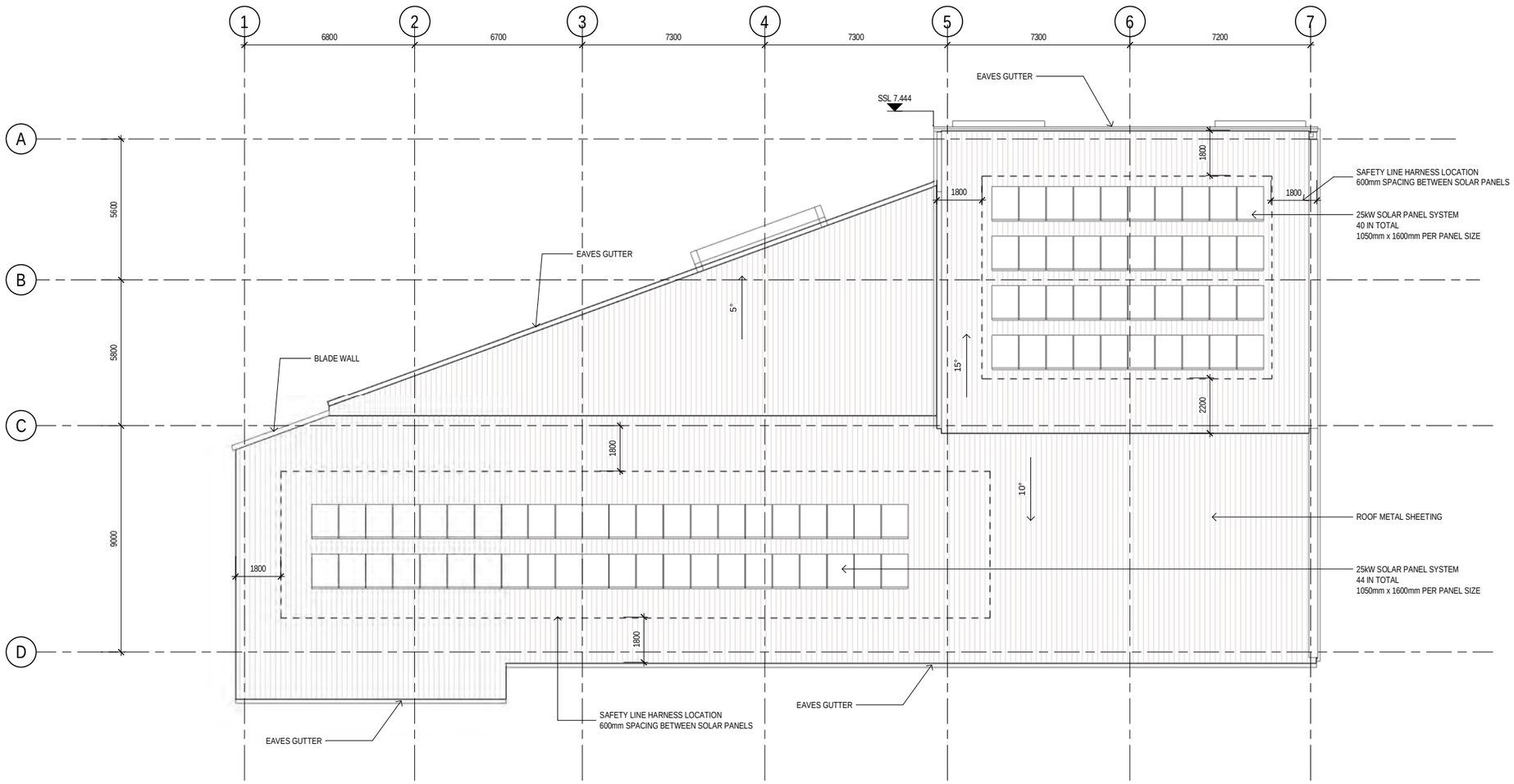
Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS
Title GENERAL ARRANGEMENT - LEVEL 2

Original Size A1 **Drawing No: 21-26108 - GR - DA-AR-2102** **Rev: A**

Plot Date: 23/08/2017 6:08:03 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



LEVEL 3 FCL
SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 1000 2000 3000 4000 5000mm
SCALE 1:100 AT ORIGINAL SIZE

NSW GOVERNMENT Education

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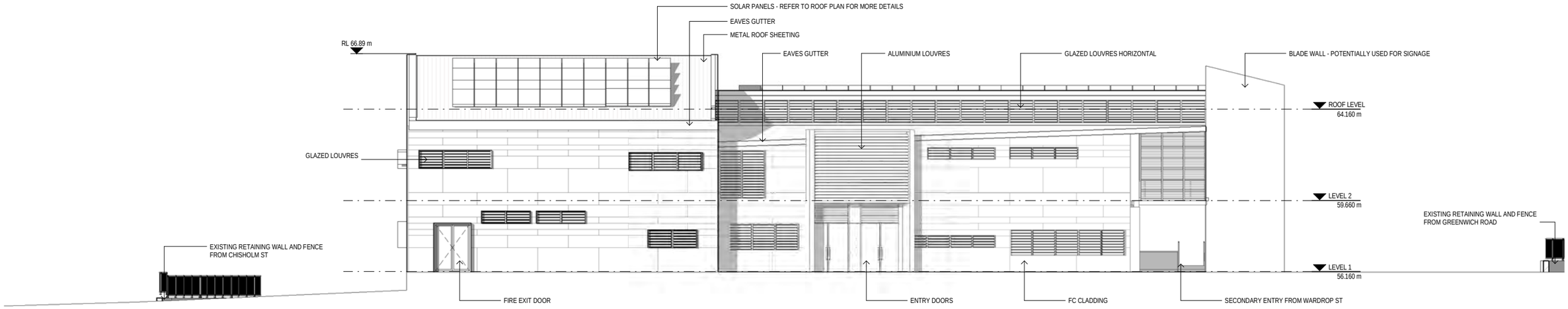
Drawn	L.LANEGRA	Designer	D.CHEONG
Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **GENERAL ARRANGEMENT - ROOF**

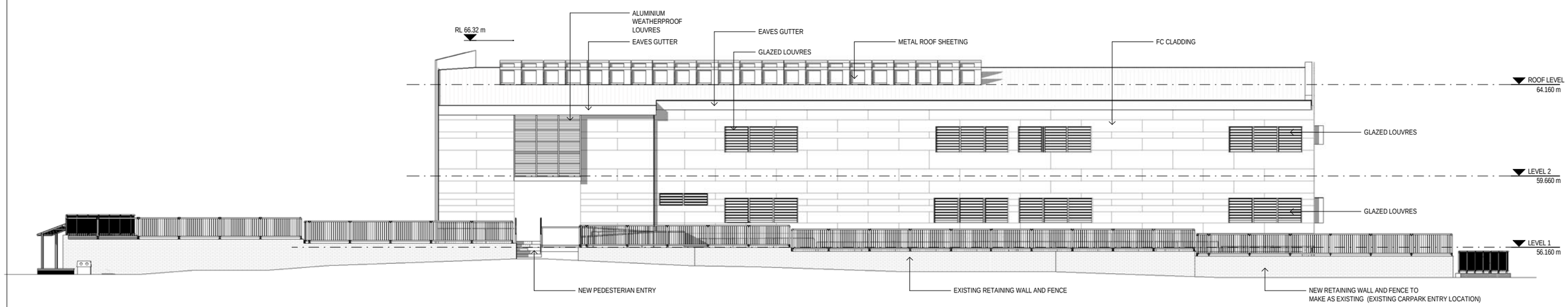
Original Size **A1**
Drawing No: 21-26108 - GR- DA-AR-2103 **Rev: A**

Plot Date: 23/08/2017 6:08:11 PM

Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



1 DA-AR-2101 NORTH ELEVATION
SCALE 1 : 100



2 DA-AR-2101 SOUTH ELEVATION
SCALE 1 : 100

PRELIMINARY

No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW	L.L	P.W	M.W	23.08.17

0 1000 2000 3000 4000 5000mm
SCALE 1: 100 AT ORIGINAL SIZE

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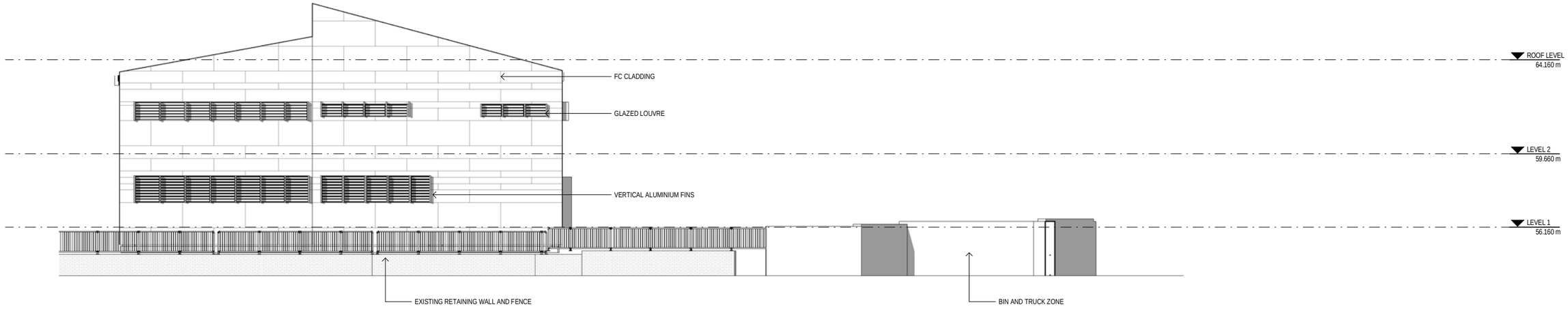
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

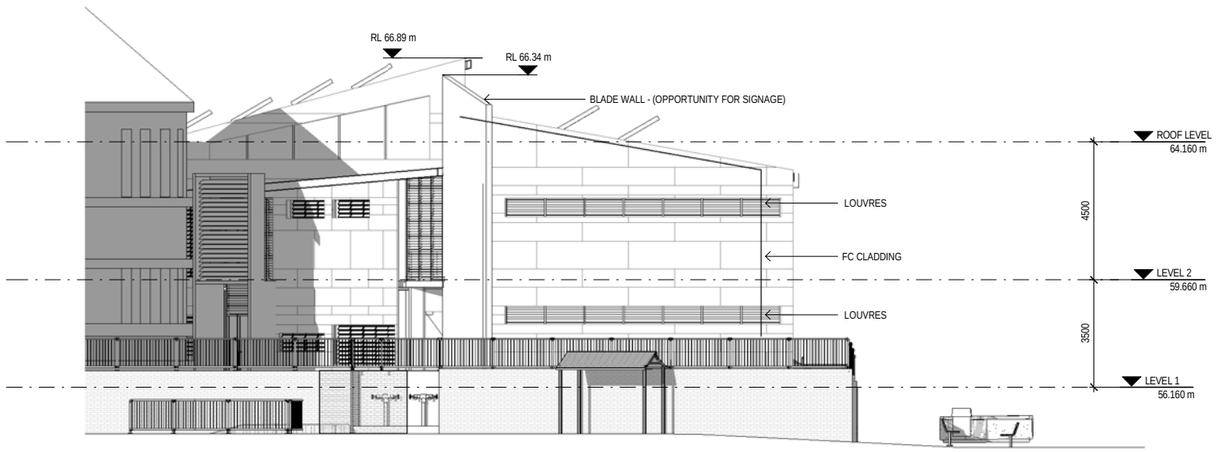
Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **NORTH & SOUTH ELEVATIONS**

Original Size **A1** Drawing No: **21-26108 - GR - DA-AR-3000** Rev: **A**

Plot Date: 23/08/2017 6:08:26 PM
Cad File No: C:\Users\lilanegra\Documents\Revit 2017 Local Files\2126108_Greenwich_Greenwich Rd Campus_lilanegra.rvt



1 EAST ELEVATION
SD-AR-2000 SCALE 1 : 100



2 WEST ELEVATION
SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 1000 2000 3000 4000 5000mm
SCALE 1: 100 AT ORIGINAL SIZE

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Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS
Title EAST AND WEST ELEVATIONS

Original Size **A1** **Drawing No: 21-26108 - GR - DA-AR-3001** **Rev: A**

Plot Date: 23/08/2017 6:08:40 PM

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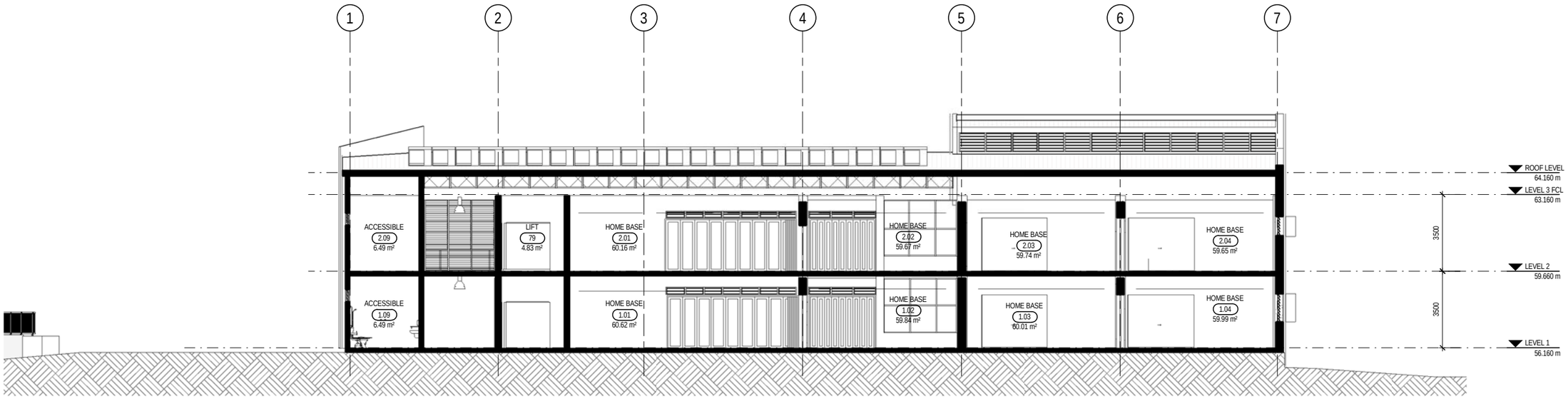
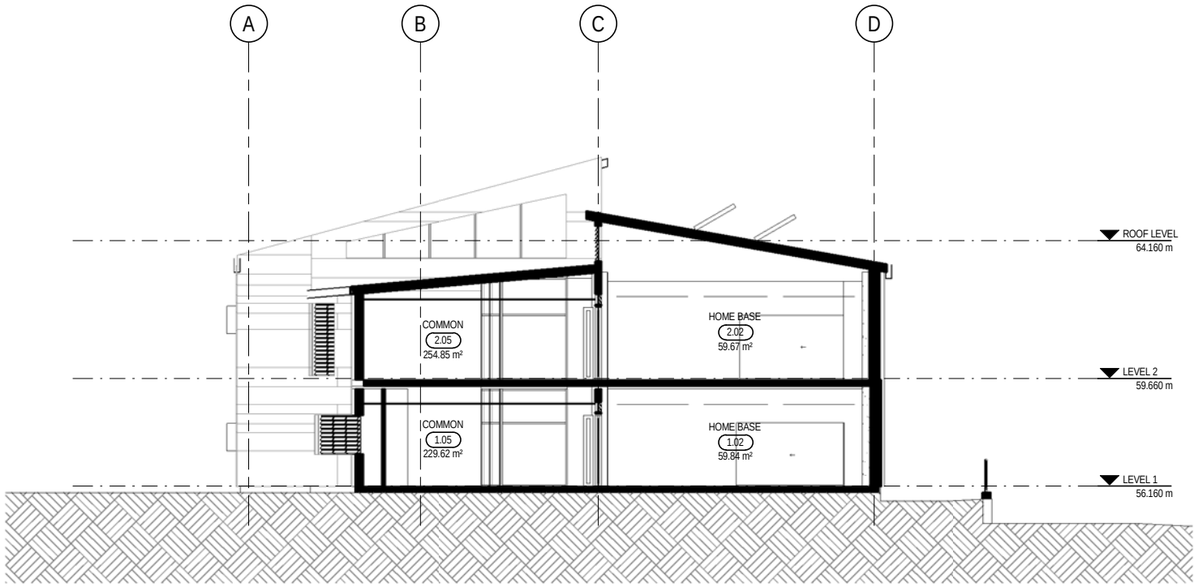
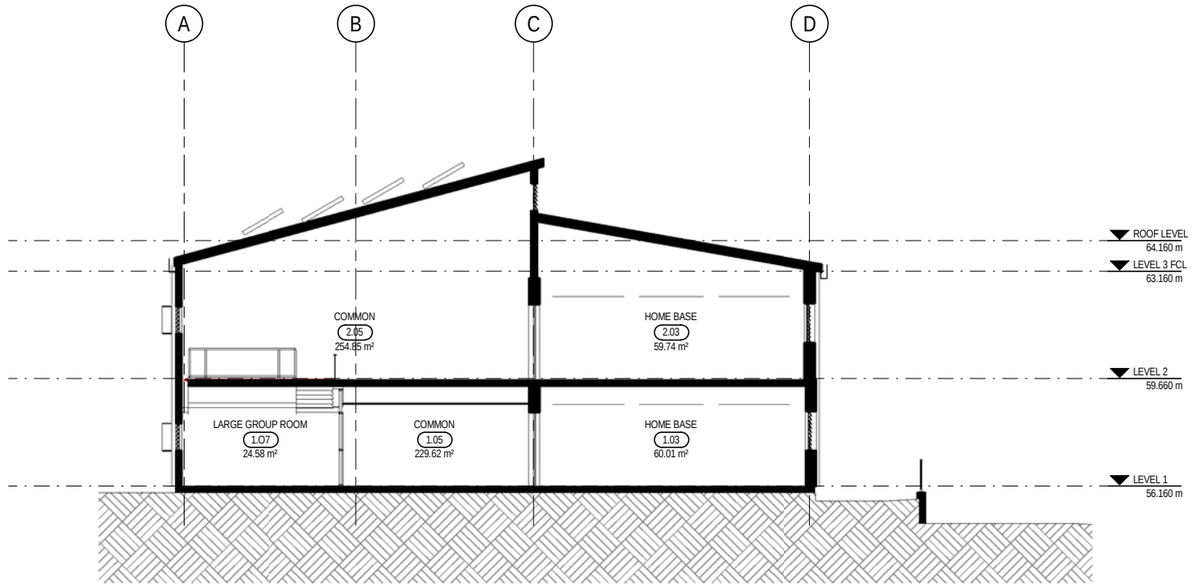


1 DA-AR-2101 SECTION FACING NORTH
SCALE 1 : 100



2 DA-AR-2101 SECTION FACING EAST
SCALE 1 : 100



3 DA-AR-2101 SECTION
SCALE 1 : 100

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

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Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 100	This Drawing must not be used for Construction unless signed as Approved	

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **SECTIONS - SHEET 1**

Original Size **A1**
Drawing No: 21-26108 - GR- DA-AR-3100 **Rev: A**

Plot Date: 23/08/2017 6:08:49 PM
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ANODISED STEEL WINDOW FRAMING

SAFETYLINE JALOUSIE ECO LOUVRE SYSTEM

FIBRE CEMENT EXTERNAL CLADDING SYSTEM

CHARCOAL COLOUR

OFFWHITE FIBRE CEMENT PANELS

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

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Drafting Check	D.CHEONG	Design Check	A.MILLER
Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	This Drawing must not be used for Construction unless signed as Approved		

Client **NSW DEPARTMENT OF EDUCATION**
Project **GREENWICH PUBLIC SCHOOL REDEVELOPMENT**
GREENWICH ROAD CAMPUS
Title **BUILDING FABRIC FINISHES SCHEDULE**

Original Size **A1** **Drawing No: 21-26108 - GR - DA-AR-5000** **Rev: A**

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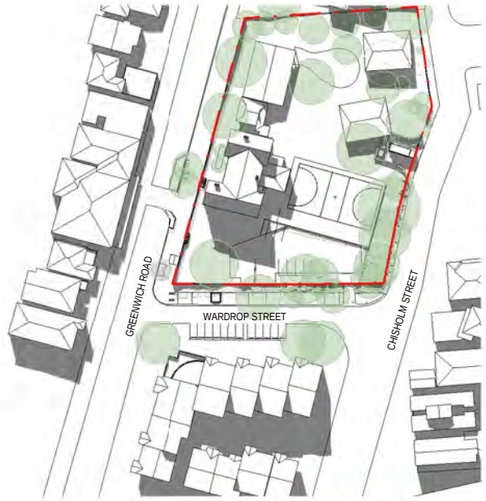
22 JUNE 9AM - EXISTING
SCALE 1 : 1000

22 JUNE 9AM - PROPOSED
SCALE 1 : 1000

22 DECEMBER 9AM - PROPOSED
SCALE 1 : 1000



22 JUNE 12PM - EXISTING
SCALE 1 : 1000

22 JUNE 12PM - PROPOSED
SCALE 1 : 1000

22 DECEMBER 12PM - PROPOSED
SCALE 1 : 1000

22 JUNE 3PM - EXISTING
SCALE 1 : 1000

22 JUNE 3PM - PROPOSED
SCALE 1 : 1000

22 DECEMBER 3PM - PROPOSED
SCALE 1 : 1000

PRELIMINARY

No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date
A	ISSUED FOR REVIEW		L.L	P.M	M.W	23.08.17

0 5 10 15 20 25 m
SCALE 1:500 AT ORIGINAL SIZE

N

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Approved (Project Director)	M.WARREN		
Nominated / Responsible Architect	A.MILLER		
Scale	1 : 1000	This Drawing must not be used for Construction unless signed as Approved	

Client NSW DEPARTMENT OF EDUCATION
Project GREENWICH PUBLIC SCHOOL REDEVELOPMENT
GREENWICH ROAD CAMPUS
Title SITE SHADOW DIAGRAMS

Original Size A1
Drawing No: 21-26108 - GR- DA-AR-9001
Rev: A

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		Name	Name	Signature	Date
A	Scott Burrows	Matthew Bennett	DRAFT		31/08/2017

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16 October 2017

Ian Guthrie
Senior Project Manager
NSW Department Of Education & Communities
16/207 Kent Street
Sydney NSW 2000

Our ref: 2126108-26522
Your ref:

Dear Ian,

NSW Schools - North & NW Sydney
Greenwich Road Public School Geotechnical and Environmental Investigation

Please see attached the geotechnical and environmental report to support the Development Application for Greenwich Road Public School. As you are aware this school has two sites being Greenwich Road and Kingslangley Road.

This geotechnical report reference PSM331-009R is for the Kingslangley Road Site.

The body of the Report outlining investigations and recommendations is for the geotechnical investigation only at the Kingslangley Road site.

The Environmental Investigation is included in a stand-alone appendix D - JBS&G Contamination Report.

This Report includes the following appendices:

- Appendix A Borehole Logs Table 1 shows only Bore Holes BH4 to BH 14 logs which are at the Kingslangley Road site. (The missing BH1, BH2 and BH3 are at the Greenwich Road site).
- Appendix B Soil Laboratory Tests. The laboratory tests are for all 14 samples from both Greenwich Public School sites and are summarised in Table 1 of the main report. Table 1 references the BH numbers and includes only the sample tests results from this site.

This Kingslangley Road Report shows the laboratory testing for all 14 samples as the laboratory did not reference the separate sites.

The samples below relate to the following bore hole at the Kings Langley Road site.

- G04 – BH04
- G05 – BH05
- G06 – BH06
- G07 – BH07
- G08 – BH08
- G09 – BH09
- G10 – BH10
- G11 – BH11
- G12 – BH12

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- G13 – BH13
- G14 – BH14

- Appendix C Kingslangley Road - Site Photos are site specific relating to the Report.
- Appendix D Kingslangley Road is the JBS&G Contamination report

This final Appendix D is a separate stand-alone Contamination Report which deals with both Greenwich Road and Kingslangley Road sites. The JBS&G Report from executive summary to Conclusions clearly differentiates the two sites by headings to enable the reader to be aware of the site being described.

The appendices of this separate Contamination Report Appendix D are also included and deal with the sites as follows:

- Appendix A is summary tables and references results by the Bore Hole number
- Appendix B photos are clearly described per site
- Appendix C bore logs references results by the Bore Hole number and site address.
- Appendix D shows historical photographs clearly indicting the site in the image.
- Appendix E is the Land Titles of both sites
- Appendix F is the EPA search results which pertains to the area
- Appendix G is the Planning certificates of both sites
- Appendix H is the result of Heritage search for the area
- Appendix I is Calibration record. As the same equipment was used this is relevant to both schools
- Appendix J is the QA results and is relevant to both Schools
- Appendix K. combines the Laboratory tests of both sites but clearly indicates the tests in regard to the Bore Holes. Bore holes BH1, BH2 and BH3 are at the Greenwich Road site. Bore Holes BH4 to BH 14 are at the Kingslangley Road site.
- Appendix L contains the DA plans for both sites.

I hope this clarifies the report sections.

Sincerely
GHD Pty Ltd

Mark Sloane
Architect
61 3 8687 8533