

INSTRUCTIONS FOR COMPLETION

This form is to be used only if no other approved form is appropriate for the purpose, e.g., Application under section 46 (c) Real Property Act, 1900; Application under section 12 (4) Trustee Act, 1925-1942.

When so required under the Stamp Duties Act, 1920, this dealing should be marked by the Commissioner of Stamp Duties before lodgment at the Registrar General's Office.

Typewriting and handwriting should be clear, legible and in permanent black non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialed by the applicant.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the applicant and the attesting witness.

Rule up all blanks.

The following instructions relate to the side notes on the form:

(a) Description of land. (If the application is only in respect of a registered dealing, rule through this panel.)

(i) **TORRENS TITLE REFERENCE**—Insert the current Folio Identifier or Volume and Folio of the Certificate of Title/Crown Grant for the land the subject of the application, e.g., 135/SP12345 or Vol. 8514 Fol. 126. Title references should be listed in numerical sequence.

(ii) **PART/WHOLE**—If part only of the land in the folio of the Register is the subject of the application delete the word "WHOLE" and insert the lot and plan number, portion, etc.

(iii) **LOCATION**—Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Pt. Lismore Co. Ross.

(b) Registered dealing. (If the application is only in respect of a certificate of title, rule through this panel.)

Show the registered number of the lease, mortgage or charge, and the title reference affected thereby, e.g., Lease—Q123456—Vol. 3456 Fol. 124.

(c) Show the full name of the registered proprietor as recorded on the Register.

(d) Strike out "land above described" or "abovementioned registered dealing", whichever does not apply.

(e) Show the full name, address and occupation or description of the person(s) to be registered as proprietor(s).

(f) Set out the terms of the request, e.g., consequent upon the appointment of, etc.

(g) Execution.

GENERALLY (i) Should there be insufficient space for execution of this application, use an annexure sheet.

(ii) The certificate of correctness under the Real Property Act, 1900, must be signed by the applicant who should execute the dealing in the presence of an adult witness to whom he is personally known. The solicitor for the applicant may sign the certificate on behalf of the applicant, the solicitor's name (not that of his firm) to be typewritten or printed adjacent to his signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the application is executed by an attorney for the applicant pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No. and I declare that I have no notice of the revocation of the said power of attorney".

AUTHORITY (iv) If the application is executed pursuant to an authority (other than specified in (iii)) the form of execution must indicate the statutory, judicial or other authority pursuant to which the application has been executed.

CORPORATION (v) If the application is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration.

OFFICE USE ONLY

DIRECTION: PROP No. OF NAMES:		FIRST SCHEDULE DIRECTIONS				
(A)	FOLIO IDENTIFIER	(B) No.	(C) SHARE	(D) I	(E)	NAME AND DESCRIPTION
<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%) rotate(45deg); font-size: 2em; font-family: cursive;">Annexure</div> </div>						
(F)	FOLIO IDENTIFIER (OR REGD. DEALING & FOLIO IDENTIFIER)	(G) DIRECTION	(H) NOTFN TYPE	(I) DEALING NUMBER	(J)	DETAILS
<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%) rotate(45deg); font-size: 2em; font-family: cursive;">See</div> </div>						

**REQUEST**

Real Property Act 1900

0
738097 N

SEE COPIES 'A' + 'B'

(A) STAMP DUTY

If applicable.

**(B) TITLE**

Show no more than 20.

SEE ANNEXURE "A"

(C) REGISTERED DEALING

If applicable.

(D) LODGED BY

L.T.O. Box 786E	Name, Address or DX and Telephone SHAW McDONALD, 8th Floor, 179 Elizabeth Street, Sydney DX 916 Sydney. Tel: 264 9111 Olympic REFERENCE (max 15 characters): TE:883686	Dealing Code R
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(E) APPLICANT

OLYMPIC CO-ORDINATION AUTHORITY

(F) REQUEST

Homebush Bay Development Corporation is presently recorded as registered proprietor of the land above described. The Applicant requests the Registrar General to record OLYMPIC CO-ORDINATION AUTHORITY as registered proprietor of the land above described pursuant to Section 39 and, in particular, clauses 7 and 9 of Part 2 Division 2 and clauses 11, 12 and 13 of Part 2 Division 3 of Schedule 2, of the Olympic Co-Ordination Authority Act 1995 which was assented to on 9 June, 1995 and which was proclaimed to commence on 30 June, 1995.

CHECKED BY (office use only)

EM23
026

Comments Y543831 + Y624370 do not prevent registration

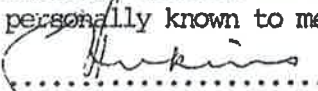
"A"

THIS IS THE ANNEXURE MARKED WITH THE LETTER "A" REFERRED TO IN THE
ATTACHED REQUEST DATED 20th NOVEMBER , 1995 MADE BY THE OLYMPIC
CO-ORDINATION AUTHORITY

TORRENS TITLE REFERENCES

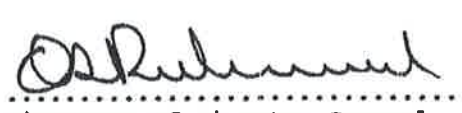
FOLIO IDENTIFIERS 101/849975; 102/849975; 2/831539; 4/831539; 5/831539;
6/831539; 7/831539; 1/840154; 11/831538; 50/747909; 52/747909; 56/773763;
57/773763; 58/786296; 59/786296; 60/786296; 70/818981; 71/818981;
72/818981; 73/818981; 74/818981; 22/787402; 24/787402; 3/740790;
54/749222; 25/793595; 26/793595; 302/541070; 4/774130; 6/774130;
7/774130 AND 8/774130.

Signed in my presence by the
Director-General who is
personally known to me


.....
Signature of Witness

TERRY PERKINS.
.....
Name of Witness (BLOCK LETTERS)

OCA OFFICES HOME BUSH
.....
Address of Witness


.....
Signature of Director-General
OLYMPIC CO-ORDINATION AUTHORITY

(G)

STANDARD EXECUTION

Certified correct for the purposes of the Real Property Act 1900.

DATE 20th November, 1995

Signed in my presence by the ~~Director-General~~ ^{Applicant} who is personally known to me.

[Signature]
Signature of Witness
TERRY JONES
Name of Witness (BLOCK LETTERS)
CCA OFFICES HOMEBUSH.
Address of Witness

[Signature]
Signature of ~~Director-General~~ ^{Applicant}
OLYMPIC CO-ORDINATION AUTHORITY

EXECUTION INCLUDING STATUTORY DECLARATION

I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900, and I certify this Application correct for the purposes of the Real Property Act 1900. Made and subscribed at
in the State of on 19 in the presence of

.....
Signature of Witness
.....
Name of Witness (BLOCK LETTERS)
.....
Address and Qualification of Witness

.....
Signature of Applicant

Form: 97-07SL
 Licence: 10V/0901/98
 Edition: 9804

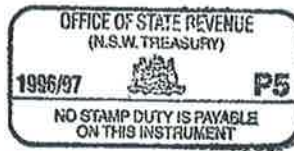
SUB-LEASE

New South Wales
 Real Property Act 1900

5876204S

**STAMP DUTY**

Office of State Revenue use only

**(A) HEAD LEASE**

U550950

(B) TORRENS TITLE

Property leased: if appropriate, specify the part or premises

Certificate of Title Folio Identifier 22/787402 PART being the premises shown on the plan annexed hereto marked "A" and thereon described as "Substation Premises No 425 'Figtree Australia'" hereinafter called the "demised premises" together with right of way and easement referred to in Clauses 1 and 2 of Annexure "B" hereto.

(C) LODGED BY

LTO Box

Name, Address or DX and Telephone

CODE

605m

Legislative Ak.

Reference (optional): BP/MAJ:982071

SL

(D) SUB-LESSOR

* NEW SOUTH WALES LOTTERIES CORPORATION (formerly NSW Lotteries)

(E)

The sub-lessor leases to the sub-lessee the property referred to above.

Encumbrances (if applicable): 1. 2. 3.

(F) SUB-LESSEE

ENERGYAUSTRALIA

(G)

TENANCY:

- (H) 1. TERM:** 50 years at an annual rental of 10c per annum payable at the expiration of the said term
2. COMMENCING DATE: 1 OCTOBER 1998 (if demanded)
3. TERMINATING DATE: 30 SEPTEMBER 2048
~~4. With an OPTION TO RENEW~~ for a period of _____ set out in _____ *STP* *fc*
5. Together with and reserving the **RIGHTS** set out in Annexure "B" hereto
6. Incorporates the provisions set out in **ANNEXURE "B"** hereto. *STP* *fc*
7. Incorporates the provisions set out in **MEMORANDUM** filed in the Land Titles Office as No. W578000

All handwriting must be in block capitals.
 A set of notes on this form (97-07SL-2)
 is available from the Land Titles Office.

Page 1 of _____
 number additional pages sequentially

Checked by (LTO use):

* Evidence attached.

(1) We certify this dealing correct for the purposes of the Real Property Act 1900.

DATE: 17/5/99

~~Signed in my presence by the sub-lessor who is personally known to me.~~~~Signature of witness:~~~~Signature of sub-lessor:~~

 SECRETARY
 BRIAN MCINTYRE
~~Name of witness:~~~~Address of witness:~~

 CHIEF EXECUTIVE OFFICER
 MICHAEL HOWELL
~~Where applicable, complete the statutory declaration below~~~~Signed in my presence by the sub-lessee who is personally known to me.~~~~Signature of witness:~~~~Signature of sub-lessee:~~~~Name of witness:~~
 SIGNED SEALED AND DELIVERED for
 and on behalf of ENERGIAUSTRALIA
~~Address of witness:~~
 by JOHN EISENHUTH
 its duly constituted Attorney pursuant
 to Power of Attorney registered
 Book 4197 No 593

 17/5/99

(1) STATUTORY DECLARATION

I solemnly and sincerely declare that—

1. The time for the exercise of option to renew in expired sub-lease No.
2. The lessee under that sub-lease has not exercised the option;
3. A variation of the sub-lease extending the term has not been entered into.

has ended:

I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900.

Made and subscribed at

in the State of

on

in the presence of—

Signature of witness:

Signature of sub-lessor:

Name of witness:

Address of witness:

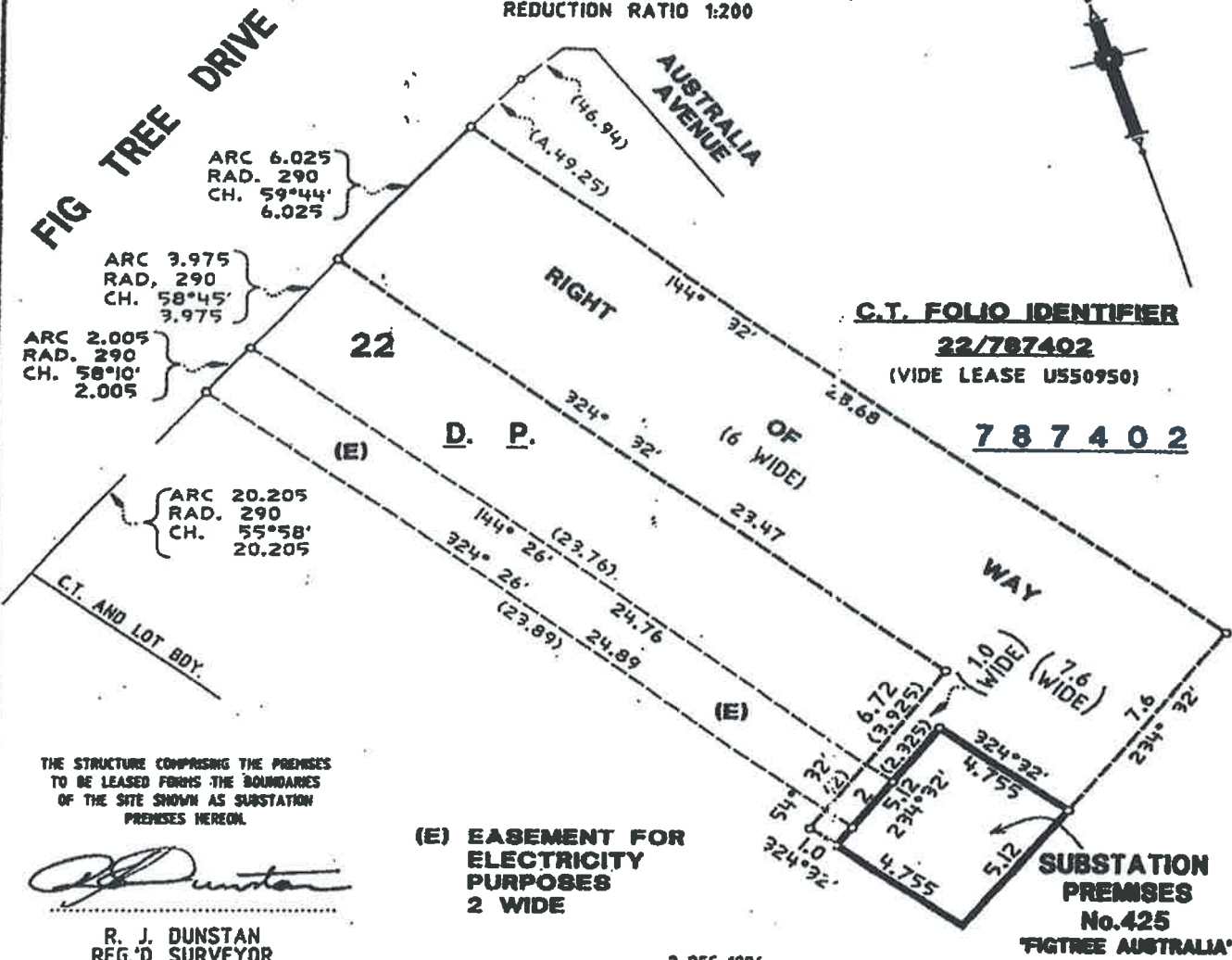
Qualification of witness:

PLAN

SHOWING SUBSTATION PREMISES No.425 RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES WITHIN C.T. FOLIO IDENTIFIER 22/787402

PARISH OF CONCORD - COUNTY OF CUMBERLAND

REDUCTION RATIO 1:200



SIGNATURES AND SEALS OF PARTIES

THIS IS THE PLAN MARKED REFERRED TO IN

THIS IS THE PLAN MARKED 'A' REFERRED TO IN SUB-LEASE MADE BETWEEN NSW LOTTERIES AS SUB-LESSOR AND ENERGYAUSTRALIA AS SUB-LESSEE
SIGNED FOR & ON BEHALF OF
NSW LOTTERIES.

SIGNED FOR & ON BEHALF OF
ENERGYAUSTRALIA

LODGE WITH DEALING
31-5-99

**ANNEXURE "B" TO MEMORANDUM OF SUB-LEASE
MADE THE 17th DAY OF MAY 1999
BETWEEN NEW SOUTH WALES LOTTERIES CORPORATION AS SUB-LESSOR
and ENERGIAUSTRALIA AS SUB-LESSEE**

The Sub-Lessee shall have the benefit of the following rights and liberties;

1. The Sub-Lessee shall have full right and liberty for its officers servants workmen agents and contractors with or without tools materials plant and other apparatus and vehicles to pass and repass at all times of the day or night during the term hereby created over the land marked "Right of Way (6 WIDE) (1.0 WIDE) (7.6 WIDE)" on the plan annexed hereto and marked with the letter "A" (hereinafter referred to as "right of way") and during such times as the Sub-Lessee considers necessary to park vehicles upon the said right of way PROVIDED HOWEVER that access for the Sub-Lessor its agents tenants or licensees is not unnecessarily impeded.
2. The Sub-Lessee shall have full right liberty and licence for its officers servants workmen agents and contractors during the term hereby created to construct lay down dismantle replace repair renew and maintain underground/overhead electricity cables through beneath or over the land marked "Easement for Electricity Purposes 2 WIDE" on the plan annexed hereto and marked with the letter "A" (hereinafter referred to as "easement") AND ALSO free and uninterrupted passage of electricity through the cables within the said easement.

SIGNED FOR & ON BEHALF OF
NEW SOUTH WALES LOTTERIES
CORPORATION


.....

.....

SIGNED FOR & ON BEHALF OF
ENERGIAUSTRALIA


.....

.....

New South Wales Lotteries Corporatisation Act 1996 No 85

Savings, transitional and other provisions

Schedule 4

10. New South Wales Lotteries Corporation same entity as New South Wales Lotteries

- (1) On the dissolution of New South Wales Lotteries, New South Wales Lotteries Corporation is taken for all purposes, including the rules of private international law, to be a continuation of and the same legal entity as New South Wales Lotteries.
- (2) This clause does not affect any transfer of assets, rights and liabilities under Part 2 of this Act.

[Minister's second reading speech made in—
Legislative Assembly on 18 September 1996
Legislative Council on 29 October 1996]

BY AUTHORITY

REGISTRATION DIRECTION ANNEXURE

Use this side only for Second Schedule directions

DO NOT USE BOTH SIDES OF THE FORM

FIRST SCHEDULE DIRECTIONS

[illegible]

SECOND SCHEDULE AND OTHER DIRECTIONS

[illegible]

REQUEST

New South Wales
Real Property Act 1900



AA22827T

PRIVACY NOTE: this information is legally required and will be

(A) STAMP DUTY

If applicable, Office of State Revenue use only

(B) LAND

Torrens Title
see Annexure A & Annexure B

(C) REGISTERED DEALING

Number Torrens Title

(D) LODGED BY

Delivery Box	Name, Address or DX and Telephone	CODE
6L	Sydney Olympic Park Authority (Attention: Peter Gray) 7 Figtree Drive, Sydney Olympic Park NSW 2127 Phone: 9714 7226 Reference (optional): AUSTRALIA CENTRE	

(E) APPLICANT

Sydney Olympic Park Authority

(F) NATURE OF REQUEST

Cancel the same Second Schedule notifications on 26 Folios of the Register
Section 32(6) RPA Act 1900 on the basis of Section 10(3) SOPA Act 2001

(G) TEXT OF REQUEST

Section 10(3) of Sydney Olympic Park Authority Act 2001 extinguished encumbrances highlighted orange on "Sydney Olympic Park Authority, Redundant Encumbrances, Drawing Number HS-J-L-007" which is filed with minute paper vide Dealing No. 9839294.

Encumbrance "AN" shown in the above mentioned drawing is "Restriction on the use of land (DP 740790)" which benefits and burdens the land described in Annexures A & B of this Request and which is thirdly and fourthly referred to in DP 740790 and varied by Dealing No. X483077.

The Registrar-General is requested to cancel the recording of DP 740790 Restriction(s) on the Use of Land and X483077 Variation of Restriction as to User on the land described in Annexures A & B of this Request utilising Section 32(6) Real Property Act 1900 on the basis of Section 10(3) Sydney Olympic Park Authority Act 2001.

DATE 28.08.03

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

PETER GRAY

Name of witness:

Address of witness: 7 Figtree Drive
Sydney Olympic Park 2127

Certified correct for the purposes of the Real Property Act 1900 by the applicant

Signature of applicant:

BRIAN NEWMAN
Chief Executive Officer



Annexure A

Torrens Title

Former Lot Number in DP 740790

1.	24/787402	2
2.	25/793595	2
3.	26/793595	2
4.	6001/1018860	2
5.	22/787402	4
6.	50/747909	5
7.	52/747909	5
8.	54/749222	5
9.	56/773763	5
10.	57/773763	5
11.	58/786296	5
12.	59/786296	5
13.	60/786296	5
14.	4/774130	6
15.	70/818981	6
16.	82/855929	6
17.	84/855929	6
18.	87/870992	6
19.	88/870992	6
20.	78/875562	6

now being 6002/1063A07.

DATE 28.08.03

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:



Name of witness:

PETER GRAY

Address of witness:

7 Figtree Drive
Sydney Olympic Park 2127

Certified correct for the purposes of the Real Property Act 1900 by the applicant.

Signature of applicant:




Annexure B**Torrens Title****Former Lot Number in DP 740790**

1.	79/875562	✓	6
2.	811/1012563	✓	6
3.	812/1012563	✓	6
4.	813/1030022	✓	6
5.	814/1030022	✓	6
6.	815/1030022	✓	6

DATE 28.08.03

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Peter Gray
PETER GRAY

Name of witness:

Address of witness:

7 Figtree Drive
Sydney Olympic Park 2127



Certified correct for the purposes of the Real Property Act 1900 by the applicant.

Signature of applicant:

[Signature]



Legal Liaison Services hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act.

Information provided through Tri-Search an approved LPI/NSW Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 22/787402

SEARCH DATE	TIME	EDITION NO	DATE
1/7/2014	9:42 PM	8	28/7/2010

LAND

LOT 22 IN DEPOSITED PLAN 787402
AT HOMEBUSH
LOCAL GOVERNMENT AREA AUBURN
PARISH OF CONCORD COUNTY OF CUMBERLAND
TITLE DIAGRAM DP787402

FIRST SCHEDULE

SYDNEY OLYMPIC PARK AUTHORITY (AP 8208818)

SECOND SCHEDULE (5 NOTIFICATIONS)

- * 1 LAND EXCLUDES MINERALS (S.134 PUBLIC WORKS ACT, 1900)
- 2 EASEMENT(S) APPURTENANT TO THE LAND ABOVE DESCRIBED CREATED BY:
L827059 RIGHT OF WAY (DP235225)
- 3 EASEMENT(S) AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE
DIAGRAM CREATED BY:
DP774130 TO DRAIN WATER 3 WIDE
- 4 5876204 LEASE TO ENERGY AUSTRALIA OF SUB-STATION PREMISES
NO 425 TOGETHER WITH RIGHT OF WAY & EASEMENT FOR
ELECTRICITY PURPOSES AFFECTING ANOTHER PART OF THE
LAND ABOVE DESCRIBED SHOWN IN PLAN WITH 5876204.
EXPIRES: 30/9/2048.
- 5 AF551228 LEASE TO NEW SOUTH WALES LOTTERIES CORPORATION OF 2
FIGTREE DRIVE, SYDNEY OLYMPIC PARK EXCLUDING LEASE
5876204. EXPIRES: 29/3/2013. OPTION OF RENEWAL: 1
PERIOD OF 2 YEARS AND 7 PERIODS OF 5 YEARS.

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

mg

PRINTED ON 1/7/2014

*ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE. WARNING: THE INFORMATION APPEARING UNDER NOTATIONS HAS NOT BEEN FORMALLY RECORDED IN THE REGISTER.

Appendix F - Council Records

1 Susan Street, P.O. Box 118, Auburn NSW Australia 1835

Telephone: 9735 1222 Facsimile: 9643 1120
ABN 63 914 691 587

JBS & G Australia Pty Limited
Level 1 50 Margaret Street
SYDNEY NSW 2000

PLANNING CERTIFICATE

Issued under Section 149(2) of the
Environmental Planning and Assessment Act, 1979

Certificate No: 21371
Receipt No: 853130
Date: 7 July 2014
Your Reference: 43567
MBATTAM:12189

Property Details

Address: 2 Figtree Drive, SYDNEY OLYMPIC PARK NSW 2127

Legal Description: Lot 22 DP 787402

Owner(s) Name (as recorded by Council):

Sydney Olympic Park Authority
2 Figtree Drive
SYDNEY OLYMPIC PARK NSW 2127

In accordance with the requirements of Section 149(2) of the *Environmental Planning and Assessment Act, 1979* (as amended), the following prescribed matters relate to the land at the date of this certificate.

Note: The information contained in Planning Certificates issued for a lot within Strata-Titled development relates to the land the development is situated on.

1. Names of Relevant Planning Instruments and DCPs

The name of:

- (a) *each environmental planning instrument that applies to the carrying out of development on the land.*
- (b) *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 consultation 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).*
- (c) *each development control plan that applies to the carrying out of development on the land.*

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

- 1(a) State Environmental Planning Policy (Major Development) 2005.

Sydney Regional Environmental Plan

(Sydney Harbour Catchment) 2005.

State Environmental Planning Policy No. 4	Development without Consent and Miscellaneous Exempt and Complying Development.
State Environmental Planning Policy No. 6	Number of Storeys in a Building.
State Environmental Planning Policy No. 19	Bushland in Urban Areas.
State Environmental Planning Policy No. 21	Caravan Parks.
State Environmental Planning Policy No. 22	Shops and Commercial Premises.
State Environmental Planning Policy No. 30	Intensive Agriculture.
State Environmental Planning Policy No. 32	Urban Consolidation (Redevelopment of Urban Land).
State Environmental Planning Policy No. 33	Hazardous and Offensive Development.
State Environmental Planning Policy No. 50	Canal Estate Development.
State Environmental Planning Policy No. 55	Remediation of Land.
State Environmental Planning Policy No. 62	Sustainable Aquaculture.
State Environmental Planning Policy No. 64	Advertising and Signage.
State Environmental Planning Policy No. 65	Design Quality of Residential Flat Development.
State Environmental Planning Policy No. 70	Affordable Housing (Revised Schemes).
State Environmental Planning Policy	(Affordable Rental Housing) 2009
State Environmental Planning Policy	Building Sustainability Index: BASIX 2004
State Environmental Planning Policy	(Major Development) 2005
State Environmental Planning Policy	(Exempt and Complying Development Codes) 2008
State Environmental Planning Policy	(Infrastructure) 2007
State Environmental Planning Policy	(Mining, Petroleum Production and Extractive Industries) 2007
State Environmental Planning Policy	(Housing for Seniors or People with a Disability) 2004
State Environmental Planning Policy	(State and Regional Development) 2011
State Environmental Planning Policy	(Temporary Structures) 2007
1(b) Draft State Environmental Planning Policy (Competition) 2010	
1(c) There are no development control plans applying to the land.	

2. Zoning and Land Use under relevant LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

- (a) *the identity of the zone, whether by reference to a name (such as "Residential Zone" or "Heritage Area") or by reference to a number (such as "Zone No. 2(a))",*
- (b) *the purpose for which the plan or instrument provides that development may be carried out within the zone without the need for development consent,*
- (c) *the purposes for which the plan or instrument provides that development may not be carried out within the zone except with development consent,*
- (d) *the purposes for which the plan or instrument provides that development is prohibited within the zone,*
- (e) *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,*
- (f) *whether the land includes or comprises critical habitat,*
- (g) *whether the land is in a conservation area (however described),*
- (h) *whether an item of environmental heritage (however described) is situated on the land.*

- (a) The land is excluded land under Auburn Local Environmental Plan 2010. The land zoning and land use provisions of State Environmental Planning Policy (Major Development) 2005 apply to the land.

The State Environmental Planning Policy (Major Development) 2005 may be obtained via the internet from www.legislation.nsw.gov.au or by contacting NSW Department of Planning.

- (b) Refer to State Environmental Planning Policy (Major Development) 2005.
- (c) Refer to State Environmental Planning Policy (Major Development) 2005.
- (d) Refer to State Environmental Planning Policy (Major Development) 2005.
- (e) There are no development standards applying to this land that fix a minimum land dimension for the erection of a dwelling-house.
- (f) The land does not include or comprise critical habitat.
- (g) The land is not located within a Heritage Conservation Area under the provisions of State Environmental Planning Policy (Major Development) 2005.

The land is not located within an Environmental Conservation Area under the provisions of State Environmental Planning Policy (Major Development) 2005.

- (h) The land has not been identified as containing an item of environmental heritage significance under the provisions of State Environmental Planning Policy (Major Development) 2005.

3. Complying Development

- (1) *The extent to which the land is land 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), 1.18 (1) (c3) 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), 1.18 (1) (c3) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.*

General Housing Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.

Rural Housing Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.

Housing Alterations Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.

General Development Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.

Commercial and Industrial (New Buildings and Additions) Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.

Subdivisions Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.

Demolition Code

- (1) or (2) Refer to State Environmental Planning Policy (Major Development) 2005.
- (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.*
- (3) Council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land when a land based restriction applies to the land, but it may not apply to all of the land.

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.

Council has not been notified by the Department of Public Works that the land is affected by the operation of Section 38 or 39 of the Coastal Protection Act, 1979.

4a Certain information relating to beaches and coasts

- (1) *In relation to a coastal council—whether an order has been made under Part 4D of the Coastal Protection Act 1979 in relation to temporary coastal protection works (within the meaning of that Act) on the land (or on public land adjacent to that land), except where the council is satisfied that such an order has been fully complied with.*
- (2) *In relation to a Coastal Council:*
- (a) *whether the council has been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works (within the meaning of that Act) have been placed on the land (or on public land adjacent to that land), and*
 - (b) *if works have been so placed—whether the council is satisfied that the works have been removed and the land restored in accordance with that Act.*
- (3) *(Repealed)*

4a The land is currently not affected by provisions included under this part.

4b Annual charges under *Local Government Act 1993* for coastal protection services that relate to existing coastal protection works

In relation to a coastal council—whether the owner (or any previous owner) of the land has consented in writing to the land being subject to annual charges under section 496B of the Local

Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act).

Note. *“Existing coastal protection works” are works to reduce the impact of coastal hazards on land (such as sea walls, revetments, groynes and beach nourishment) that existed before the commencement of section 553B of the Local Government Act 1993.*

4b The land is currently not affected by provisions included under this part.

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.

The land is not located in an area proclaimed to be a mine subsidence district within the meaning of Section 15 of the Mine Subsidence Compensation Act, 1961.

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, or*
 - (b) *Any Environmental Planning Instrument, or*
 - (c) *Any resolution of the Council.*
- (a) The land is not affected by any road widening or road realignment under Division 2 of Part 3 of the Roads Act 1993.
 - (b) The land is not affected by any road widening or road realignment under any Environmental Planning Instrument.
 - (c) The land is not affected by any road widening or road realignment under a Council resolution.

7. Council and other public authority policies on Hazard Risk Restriction

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, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

- (a) The land is excluded land under Auburn Local Environmental Plan 2010 and the applicant should refer to State Environmental Planning Policy (Major Development) 2005 on www.legislation.nsw.gov.au.
The land is not affected by a policy that has been adopted by Council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence or any other risk.
- (b) The land is excluded land under Auburn Local Environmental Plan 2010 and the applicant should refer to State Environmental Planning Policy (Major Development) 2005 on www.legislation.nsw.gov.au.

Council has not been notified of any policies adopted by other public authorities that restrict development of the land because of the likelihood of land slip, bushfire, flooding, tidal inundation, subsidence or other risk.

Council has been notified that the Department of Planning has adopted the *New South Wales Coastal Planning Guideline: Adapting to Sea Level Rise (August 2010)*. The guideline can be viewed at www.planning.nsw.gov.au.

The applicant should also refer to projected sea level rise low, medium and high scenario maps on http://www.ozcoasts.org.au/climate/Map_images/Sydney/mapLevel2.jsp for further information.

7a Flood related Development Controls Information

- (1) *Whether or not the development on that land or part of the land for the purposes of dwellings, 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 land is excluded land under Auburn Local Environmental Plan 2010 and the applicant should refer to State Environmental Planning Policy (Major Development) 2005 on www.legislation.nsw.gov.au.

- (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 land is excluded land under Auburn Local Environmental Plan 2010 and the applicant should refer to State Environmental Planning Policy (Major Development) 2005 on www.legislation.nsw.gov.au.

- (3) *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.*

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

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.

The land is excluded land under Auburn Local Environmental Plan 2010. The applicant should refer to State Environmental Planning Policy (Major Development) 2005 on www.legislation.nsw.gov.au.

9. Contributions Plans

The name of each Contributions Plan applying to the land:

The land is not affected by the Auburn Council Development Contributions Plan 2007.

9A Biodiversity Certified Land

If the land is biodiversity certified land (within the meaning of Part 7A A of the Threatened Species Conservation Act 1995), a statement to that effect.

The land is not biodiversity certified land within the meaning of the above Act.

10. Biobanking Agreements

If the land is land to which a biobanking agreement under Part 7A of the Threatened Species Conservation Act 1995 relates, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Director – General of the Department of Environment, Climate Change and Water).

The land is not affected by a Bio-banking agreement under the Act.

11. Bush Fire Prone Land

If any of the land is bush fire prone land (as defined in the Act), a statement that all or, as the case may be, some of the land is bush fire prone land. If none of the land is bush fire prone land, a statement to that effect.

The land is not located within an area that is bush fire prone as defined by the Environmental Planning and Assessment Act, 1979.

12. Property Vegetation Plans

If the land is land to which a Property Vegetation Plan under the Native Vegetation Act, 2003 applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

The land is not affected by a Property Vegetation Plan under the *Native Vegetation Act, 2003*.

13. Orders under the 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).

The land is not affected by an order issued under the Trees (Disputes between Neighbours) Act 2006.

14. Directions under Part 3A (Environmental Planning and Assessment Act 1979)

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.

There are no ministerial directions in force under section 75P (2) (c1) of the Environmental Planning and Assessment Act 1979.

15. Site compatibility certificates and conditions for seniors housing

If the land is land to which State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 applies:

- (a) *a statement of whether there is a current site compatibility certificate (seniors housing), of which the Council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:*
- (i) *the period for which the certificate is current, and*
 - (ii) *that a copy may be obtained from the head office of the Department of Planning, and*
- (b) *a statement setting out any terms of a kind referred to in clause 18 (2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.*
- (a) & (b) The land is not subject to a site compatibility certificate.

16. Site Compatibility Certificates for Infrastructure

A statement of whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

- (a) *the period for which the certificate is valid, and*
 - (b) *that a copy may be obtained from the head office of the Department of Planning.*
- (a) & (b) There is no site compatibility certificate issued under the State Environmental Planning Policy (Infrastructure 2007) in respect of the land.

17. Site Compatibility Certificates and Conditions for Affordable Rental Housing

- (1) *A statement of 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 and, if there is a certificate, the statement is to include:*
- (a) *the period of which the certificate is current, and*
 - (b) *that a copy may be obtained from the head office of the Department of Planning.*
- (2) *A statement setting out any terms of a kind referred to in clause 17 (1) or 38 (1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land.*
- (1) & (2) There is no current site compatibility certificate (affordable rental housing) of which council is aware or a statement setting out any terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that has been imposed as a condition of consent to a development application for the land.

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.*
 - (2) *The date of any subdivision order that applies to the land.*
 - (3) *Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.*
- (1), (2) & (3) The land is not affected by a proposed or adopted development plan by Council or a subdivision order.

19. Site Verification Certificates

A statement of whether there is a current site verification certificate, of which the council is aware, in respect of the land and, if there is a certificate, the statement is to include:

- (a) *the matter certified by the certificate, and*

Note. A site verification certificate sets out the Director-General's opinion as to whether the land concerned is or is not biophysical strategic agricultural land or critical industry cluster land—see Division 3 of Part 4AA of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

- (a) *the date on which the certificate ceases to be current (if any), and*

- (b) *that a copy may be obtained from the head office of the Department of Planning and Infrastructure.*

(a), (b) & (c) There is no site verification certificate on the land.

Note:

Section 59(2) of the Contaminated Lands Management Act 1997 prescribes the following matters that are 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,*
- 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,*
- c) *That the land to which the certificate relates is the 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,*
- 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,*
- 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 any time to the local authority issuing the certificate.*

- (a) The land is not significantly contaminated land (or part of the land) within the meaning of the *Contaminated Lands Management Act 1997* at the date when the certificate is issued.
- (b) The land is not subject to a management order within the meaning of the *Contaminated Lands Management Act 1997* at the date when the certificate is issued.
- (c) The land is not the subject of an approved voluntary management proposal within the meaning of the *Contaminated Lands Management Act 1997* at the date when the certificate is issued.
- (d) The land is not subject to an ongoing maintenance order within the meaning of the *Contaminated Lands Management Act 1997* at the date when the certificate is issued.
- (e) The land is not subject to a site audit statement within the meaning of the *Contaminated Lands Management Act 1997*.

Note:

Section 26 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* provides that a planning certificate must include advice about any exemption under section 23 or authorisation under section 24 of that Act if the council is provided with a copy of the exemption or authorisation by the Co-ordinator General under that Act.

Not applicable.

Section 149(5) Information

In accordance with the requirements of Section 149(5) of the *Environmental Planning and Assessment Act, 1979* (as amended), the following additional information is provided about the land to which this certificate applies.

Note: In accordance with Section 149(6) of the *Environmental Planning and Assessment Act, 1979* (as amended), Council will not incur any liability for the following additional information, which is provided in good faith. The absence of any matter affecting the land does not imply that the land is not affected by any matter not referred to in this Certificate.

The NSW Scientific Committee, established by the Threatened Species Conservation Act, 1995 has made a Preliminary Determination to support a proposal to list the Cumberland Plain Woodland in the Sydney Basin Bioregion as a Critically Endangered Ecological Community on Part 2 of Schedule 1A of the Act and to omit reference to Cumberland Plain Woodland from Part 3 of Schedule 1 (Endangered Ecological Communities) of the Act.

The land is located within Sydney Olympic Park and is affected by the Sydney Olympic Park Authority Act, 2001.



MARK BRISBY
GENERAL MANAGER

Per: Karl OKorn
Manager- Statutory Planning & Development Control

Appendix G - Borehole Logs



Borehole No: BH01

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: Deere

Drill Rig: Backhoe

Method: SFA

Total Hole Depth (mbgs): 1.5

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty sand, brown, heterogeneous, dry, medium dense, organic matter	BH01: 0-0.1	0	D	
		FILL Silty sand, heterogeneous, grey to brown, dry, medium dense with inclusions of fine concrete, bricks, tile and igneous gravels	BH01: 0.2-0.3	0	D	
			BH01: 0.5-0.6	0	D	
1.0		SILTY CLAY Silty clay, red with brown and grey mottles, homogeneous, dry, stiff	BH01: 1.0-1.1	0	D	
		END OF HOLE 1.5 m bgs natural encountered				
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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**Borehole No: BH02****Project No:** 43567**Client:** Mirvac Development Pty Ltd**Project Name:** SOPA Site 53 Due Diligence**Site Address:** 2 Figtree Drive, Sydney Olympic Park**Date:** 7/07/2014**Contractor:** Deere**Drill Rig:** Backhoe**Method:** SFA**Total Hole Depth (mbgs):** 2.6**Eastings (MGA):** -**Northings (MGA):** -**Reference Level:** Ground Surface**Elevation - Surface (m):** -**Bore Diameter (mm):** -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty sand, brown, heterogeneous, dry, medium dense, organic matter	BH02: 0-0.1	0	D	
		FILL Silty gravelly sand, heterogeneous, grey to brown, dry, medium dense with inclusions of fine concrete, bricks, tile, ironstone and igneous gravels	BH02: 0.2-0.3	0	D	
			BH02: 0.5-0.6	0	D	
1.0		FILL As above, less concrete	BH02: 1.0-1.1	0	D	
			BH02: 1.4-1.5	0	D	
2.0		FILL As above, no concrete, tile or brick gravels	BH02: 2.0-2.1	0	D	
		FILL As above fine to coarse shale fragments	BH02: 2.5-2.6	0	D	
		END OF HOLE 2.6 m bgs refusal on bedrock				
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH03

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: Deere

Drill Rig: Backhoe

Method: SFA

Total Hole Depth (mbgs): 1.0

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty sand, dark brown, heterogeneous, damp, medium dense with inclusions of fine to coarse grains, roots, organic matter	BH03: 0-0.1	0	D	QC01 and QC01A collected
		FILL As above, coarse concrete gravels	BH03: 0.2-0.3	0	D	
		SILTY CLAY Silty clay, brown with grey and red mottles, homogenous, dry, mediyum plasticity and high plasticity, stiff	BH03: 0.5-0.6	0	D	
1.0		END OF HOLE 1.0 m bgs natural encountered				
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH04

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: Deere

Drill Rig: Backhoe

Method: SFA

Total Hole Depth (mbgs): 1.0

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty sand, dark brown, heterogeneous, damp, medium dense with inclusions of organic matter	BH04: 0-0.1	0	D	
		FILL As above, less organic matter	BH04: 0.2-0.3	0	D	
		SILTY CLAY Silty clay, red with grey and brown mottles, homogenous, dry, mediyum plasticity and high plasticity, stiff	BH04: 0.5-0.6	0	D	
1.0		END OF HOLE 1.0 m bgs natural encountered				
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

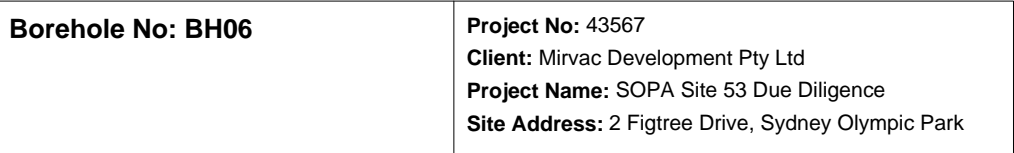
NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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**Borehole No: BH05****Project No:** 43567**Client:** Mirvac Development Pty Ltd**Project Name:** SOPA Site 53 Due Diligence**Site Address:** 2 Figtree Drive, Sydney Olympic Park**Date:** 7/07/2014**Contractor:** Deere**Drill Rig:** Backhoe**Method:** SFA**Total Hole Depth (mbgs):** 2.6**Eastings (MGA):** -**Northings (MGA):** -**Reference Level:** Ground Surface**Elevation - Surface (m):** -**Bore Diameter (mm):** -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty sand, brown, heterogeneous, dry, medium dense with inclusions of rootlets, organic matter	BH05 0-0.1	0	D	QC02 and QC02A collected with sample
		FILL Silty sand, grey to brown, heterogenous, dry, medium density with inclusions of fine concrete, igneous and shale gravels	BH05: 0.2-0.3	0	D	
			BH05: 0.5-0.6	0	D	
1.0			BH05: 1.0-1.1	0	D	
			BH05: 1.5-1.6	0	D	
2.0		SILTY CLAY Silty clay, grey with red and brown mottles, homogenous, dry, medium to high plasticity, stiff	BH05: 2.0-2.1	0	D	
		END OF HOLE 2.6 m bgs natural encountered				
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

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Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground Surface
Elevation - Surface (m): -
Bore Diameter (mm): -

[illegible]

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger	U - Undisturbed tube sample	AHD - Australian Height Datum	Logged By: K.Sharp
SFA - Solid Flight Auger	D - Disturbed sample	BGS - Below Ground Surface	Project Manager: M.Battam
HFA - Hollow Flight Auger	CS - Core sample		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH07	Project No: 43567 Client: Mirvac Development Pty Ltd Project Name: SOPA Site 53 Due Diligence Site Address: 2 Figtree Drive, Sydney Olympic Park
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Date: 7/07/2014	Eastings (MGA): -
Contractor: Deere	Northings (MGA): -
Drill Rig: Backhoe	Reference Level: Ground Surface
Method: SFA	Elevation - Surface (m): -
Total Hole Depth (mbgs): 0.8	Bore Diameter (mm): -

[illegible]

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger	U - Undisturbed tube sample	AHD - Australian Height Datum	Logged By: K.Sharp
SFA - Solid Flight Auger	D - Disturbed sample	BGS - Below Ground Surface	Project Manager: M.Battam
HFA - Hollow Flight Auger	CS - Core sample		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground Surface
Elevation - Surface (m): -
Bore Diameter (mm): -

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger	U - Undisturbed tube sample	AHD - Australian Height Datum	Logged By: K.Sharp
SFA - Solid Flight Auger	D - Disturbed sample	BGS - Below Ground Surface	Project Manager: M.Battam
HFA - Hollow Flight Auger	CS - Core sample		
PT - Push Tube			
AH - Air Hammer			

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH09

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: Deere

Drill Rig: Backhoe

Method: SFA

Total Hole Depth (mbgs): 0.4

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty gravelly sand, yellow to brown, dry, dense with inclusions of fine to coarse brick, concrete, tile, fine river gravels	BH09: 0-0.1	0	D	
		FILL Silty sandy gravel, grey to brown, medium dense with inclusions of coarse, concrete, brick, igneous gravels	BH09: 0.2-0.3	0	D	
		END OF HOLE 0.4 m bgs refusal on gravels				
1.0						
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH10

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: -

Drill Rig: -

Method: HA

Total Hole Depth (mbgs): 0.3

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty gravelly sand, yellow to brown, damp, dense with inclusions fine river gravels	BH10: 0-0.1	0	D	
		FILL Silty clay, brown with red, grey, damp, heterogenous, stiff with inclusions of fine concrete gravels, metal	BH10: 0.2-0.3	0	D	
		END OF HOLE 0.4 m bgs refusal on gravels				
1.0						
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH11

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: -

Drill Rig: -

Method: HA

Total Hole Depth (mbgs): 0.3

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty clay, dark brown, heterogeneous, damp, medium to high plasticity, firm	BH11: 0-0.1	0	D	
		FILL Silty clay, grey, damp, heterogenous, medium plasticity, stiff with inclusions of fine concrete and brick gravels,	BH11: 0.2-0.3	0	D	
		END OF HOLE 0.4 m bgs refusal on gravels				
1.0						
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Borehole No: BH12

Project No: 43567

Client: Mirvac Development Pty Ltd

Project Name: SOPA Site 53 Due Diligence

Site Address: 2 Figtree Drive, Sydney Olympic Park

Date: 7/07/2014

Contractor: -

Drill Rig: -

Method: HA

Total Hole Depth (mbgs): 0.2

Eastings (MGA): -

Northings (MGA): -

Reference Level: Ground Surface

Elevation - Surface (m): -

Bore Diameter (mm): -

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		Ground Surface				
		FILL Silty gravelly sand, damp, heterogeneous medium density, fine to coarse, with inclusions of brick, concrete gravels, plastic and roots	BH11: 0-0.1	0	D	
		END OF HOLE 0.2 m bgs refusal on gravels	BH11: 0.2-0.3	0	D	
1.0						
2.0						
3.0						

Drilling Method	Sample Type	Reference Level	Log Details
HA - Hand Auger SFA - Solid Flight Auger HFA - Hollow Flight Auger PT - Push Tube AH - Air Hammer	U - Undisturbed tube sample D - Disturbed sample CS - Core sample	AHD - Australian Height Datum BGS - Below Ground Surface	Logged By: K.Sharp Project Manager: M.Battam

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information
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Appendix H - Laboratory Reports and Chain of Custody Documentation



CHAIN OF CUSTODY

00029

PROJECT NO.: 43567		LABORATORY BATCH NO.:	
PROJECT NAME: SOPA		SAMPLERS: K. Sharp	
SEND REPORT TO: M. Bottom		PHONE: SYDNEY 02 8245 0300 - PERTH 08 9488 0100	
DATE NEEDED BY: 24 hrs turn around		EMAIL: mbottom@jbsg.com	
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:			
SAMPLE ID	MATRIX	DATE	TIME
1- QC01A	soil	27/1/14	
2- QC02A			
3- QC03A			
TYPE & PRESERVATIVE		pH	
Jart + Bg + Ice			
NOTES:			
Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200 Job No: 112651 Date Received: 7/7/14 Time Received: 15:40 Received by: JYH Temp: Cool/Ambient Cooling: Ice/Deepack Security: Intact/Broken/None			
RELINQUISHED BY:		RECEIVED BY:	
NAME: K. Sharp	DATE: 7/7/14	NAME: JYH	DATE: 7/7/14
OF: JBS&G	DATE: 7/7/14	OF: ELS	DATE: 15:40
METHOD OF SHIPMENT:		FOR RECEIVING LAB USE ONLY:	
CONSIGNMENT NOTE NO.	TRANSPORT CO.	COOLER SEAL - Yes..... No.....	Intact Broken
CONSIGNMENT NOTE NO.	TRANSPORT CO.	COOLER TEMP 2.8 deg C	
CONSIGNMENT NOTE NO.	TRANSPORT CO.	COOLER SEAL - Yes..... No.....	Intact Broken
CONSIGNMENT NOTE NO.	TRANSPORT CO.	COOLER TEMP deg C	
Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsrd.; C = Sodium Hydroxide Prsrd.; VC = Hydrochloric Acid Prsrd Vial; VS = Sulfuric Acid Prsrd Vial; S = Zinc Prsrd; E = EDTA Prsrd; ST = Sterile Bottle; O = Other			
IMSO Form 013 - Chain of Custody - Generic			

CERTIFICATE OF ANALYSIS

112651

Client:

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: M Battam

Sample log in details:

Your Reference:	<u>43567, SOPA</u>
No. of samples:	3 Soils
Date samples received / completed instructions received	07/07/2014 / 07/07/2014

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	8/07/14 / 8/07/14
Date of Preliminary Report:	Not Issued

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:



Jacinta Hurst
Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date extracted	-	7/07/2014
Date analysed	-	7/07/2014
TRHC ₆ - C ₉	mg/kg	<25
TRHC ₆ - C ₁₀	mg/kg	<25
vTPHC ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	93

svTRH (C10-C40) in Soil		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date extracted	-	07/07/2014
Date analysed	-	08/07/2014
TRHC ₁₀ - C ₁₄	mg/kg	<50
TRHC ₁₅ - C ₂₈	mg/kg	110
TRHC ₂₉ - C ₃₆	mg/kg	150
TRH>C ₁₀ -C ₁₆	mg/kg	<50
TRH>C ₁₀ - C ₁₆ less Naphthalene (F2)	mg/kg	<50
TRH>C ₁₆ -C ₃₄	mg/kg	200
TRH>C ₃₄ -C ₄₀	mg/kg	<100
Surrogate o-Terphenyl	%	79

PAHs in Soil		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date extracted	-	7/07/2014
Date analysed	-	8/07/2014
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	<0.1
Pyrene	mg/kg	<0.1
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2
Benzo(a)pyrene	mg/kg	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1
Benzo(a)pyrene TEQ NEPMB1	mg/kg	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96

Organochlorine Pesticides in soil		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date extracted	-	07/07/2014
Date analysed	-	07/07/2014
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Surrogate TCMX	%	96

PCBs in Soil	UNITS	112651-1
Our Reference:	-----	QC01A
Your Reference	-----	7/07/2014
Date Sampled		Soil
Type of sample		
Date extracted	-	07/07/2014
Date analysed	-	07/07/2014
Arochlor 1016	mg/kg	<0.1
Arochlor 1221	mg/kg	<0.1
Arochlor 1232	mg/kg	<0.1
Arochlor 1242	mg/kg	<0.1
Arochlor 1248	mg/kg	<0.1
Arochlor 1254	mg/kg	<0.1
Arochlor 1260	mg/kg	<0.1
Surrogate TCLMX	%	96

Acid Extractable metals in soil		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date digested	-	07/07/2014
Date analysed	-	07/07/2014
Arsenic	mg/kg	<4
Cadmium	mg/kg	<0.4
Chromium	mg/kg	9
Copper	mg/kg	16
Lead	mg/kg	12
Mercury	mg/kg	<0.1
Nickel	mg/kg	8
Zinc	mg/kg	43

Moisture		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date prepared	-	07/07/2014
Date analysed	-	08/07/2014
Moisture	%	20

Asbestos ID - soils NEPM*		
Our Reference:	UNITS	112651-1
Your Reference	-----	QC01A
Date Sampled	-----	7/07/2014
Type of sample		Soil
Date analysed	-	8/07/2014
Sample mass tested	g	476.20g
Sample Description	-	Brown coarse- grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No respirable fibres detected
ACM>7mm*	-	None
ACM<7mm*	-	None
Fibrous Asb(FA)/Asb Fines(AF)	-	None
Asbestos ww%* Note	-	<0.001
Comments	-	See back page

MethodID	Methodology Summary
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
ASB-007	<p>Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit between 0.01g/kg (0.001% w/w) to 0.1g/kg (0.01% w/w). This form of analysis is outside the scope of NATA accreditation.</p> <p>Note: The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres.</p>

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH(C6-C10)/BTEXN in Soil						Base II Duplicate II %RPD		
Date extracted	-			07/07/2014	112651-1	7/07/2014 7/07/2014	LCS-13	07/07/2014
Date analysed	-			07/07/2014	112651-1	7/07/2014 7/07/2014	LCS-13	07/07/2014
TRHC ₆ - C ₉	mg/kg	25	Org-016	<25	112651-1	<25 <25	LCS-13	99%
TRHC ₆ - C ₁₀	mg/kg	25	Org-016	<25	112651-1	<25 <25	LCS-13	99%
Benzene	mg/kg	0.2	Org-016	<0.2	112651-1	<0.2 <0.2	LCS-13	95%
Toluene	mg/kg	0.5	Org-016	<0.5	112651-1	<0.5 <0.5	LCS-13	100%
Ethylbenzene	mg/kg	1	Org-016	<1	112651-1	<1 <1	LCS-13	100%
m+p-xylene	mg/kg	2	Org-016	<2	112651-1	<2 <2	LCS-13	99%
o-Xylene	mg/kg	1	Org-016	<1	112651-1	<1 <1	LCS-13	102%
naphthalene	mg/kg	1	Org-014	<1	112651-1	<1 <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	94	112651-1	93 94 RPD: 1	LCS-13	97%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
svTRH(C10-C40) in Soil						Base II Duplicate II %RPD		
Date extracted	-			08/07/2014	112651-1	07/07/2014 07/07/2014	LCS-13	08/07/2014
Date analysed	-			08/07/2014	112651-1	08/07/2014 08/07/2014	LCS-13	08/07/2014
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	112651-1	<50 <50	LCS-13	98%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	112651-1	110 150 RPD: 31	LCS-13	110%
TRHC ₂₈ - C ₃₆	mg/kg	100	Org-003	<100	112651-1	150 200 RPD: 29	LCS-13	96%
TRH>C ₁₀ -C ₁₆	mg/kg	50	Org-003	<50	112651-1	<50 57	LCS-13	98%
TRH>C ₁₆ -C ₃₄	mg/kg	100	Org-003	<100	112651-1	200 280 RPD: 33	LCS-13	110%
TRH>C ₃₄ -C ₄₀	mg/kg	100	Org-003	<100	112651-1	<100 100	LCS-13	96%
Surrogate o-Terphenyl	%		Org-003	88	112651-1	79 82 RPD: 4	LCS-13	99%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			07/07/2014	112651-1	7/07/2014 7/07/2014	LCS-13	07/07/2014
Date analysed	-			07/07/2014	112651-1	8/07/2014 8/07/2014	LCS-13	07/07/2014
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	LCS-13	110%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	LCS-13	112%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	LCS-13	113%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	LCS-13	111%

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	LCS-13	115%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	LCS-13	112%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	112651-1	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	112651-1	<0.05 <0.05	LCS-13	126%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	107	112651-1	96 102 RPD: 6	LCS-13	107%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			07/07/2014	112651-1	07/07/2014 07/07/2014	LCS-13	07/07/2014
Date analysed	-			07/07/2014	112651-1	07/07/2014 07/07/2014	LCS-13	07/07/2014
HCB	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	102%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	86%
Heptachlor	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	76%
delta-BHC	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	106%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	99%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	108%
Dieldrin	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	108%
Endrin	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	90%
pp-DDD	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	121%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	LCS-13	99%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	103	112651-1	96 101 RPD: 5	LCS-13	103%

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			07/07/2014	112651-1	07/07/2014 07/07/2014	LCS-13	07/07/2014
Date analysed	-			07/07/2014	112651-1	07/07/2014 07/07/2014	LCS-13	07/07/2014
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	LCS-13	101%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	112651-1	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	103	112651-1	96 101 RPD: 5	LCS-13	90%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			07/07/2014	112651-1	07/07/2014 07/07/2014	LCS-1	07/07/2014
Date analysed	-			07/07/2014	112651-1	07/07/2014 07/07/2014	LCS-1	07/07/2014
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	112651-1	<4 <4	LCS-1	100%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	112651-1	<0.4 <0.4	LCS-1	103%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	112651-1	9 10 RPD: 11	LCS-1	102%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	112651-1	16 16 RPD: 0	LCS-1	104%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	112651-1	12 14 RPD: 15	LCS-1	102%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	112651-1	<0.1 <0.1	LCS-1	80%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	112651-1	8 10 RPD: 22	LCS-1	102%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	112651-1	43 45 RPD: 5	LCS-1	102%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	[NT]
QUALITY CONTROL Asbestos ID - soils NEPM*	UNITS	PQL	METHOD	Blank
Date analysed	-			[NT]

Report Comments:

This report is consistent with the analytical procedures and reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Asbestos ID was analysed by Approved Identifier: Paul Ching
Asbestos ID was authorised by Approved Signatory: Paul Ching

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than

NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.



LABORATORY BATCH NO.:

SAMPLERS: K. Sharp

PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100

QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

[illegible]

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

JMSO Forms013 – Chain of Custody - Generic

CERTIFICATE OF ANALYSIS

112910

Client:

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: Michelle Battam

Sample log in details:

Your Reference:	43567, SOPA
No. of samples:	5 Waters
Date samples received / completed instructions received	10/07/2014 / 10/07/2014

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	11/07/14 / 11/07/14
Date of Preliminary Report:	Not Issued

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:



Jacinta Hurst
Laboratory Manager

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water	112910-5 Trip Blank 10/07/2014 Water
Date extracted	-	10/07/2014	10/07/2014	10/07/2014	10/07/2014	10/07/2014
Date analysed	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Dichlorodifluoromethane	µg/L	<100	<100	<100	<10	<10
Chloromethane	µg/L	<100	<100	<100	<10	<10
Vinyl Chloride	µg/L	<100	<100	<100	<10	<10
Bromomethane	µg/L	<100	<100	<100	<10	<10
Chloroethane	µg/L	<100	<100	<100	<10	<10
Trichlorofluoromethane	µg/L	<100	<100	<100	<10	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<1	<1
Trans-1,2-dichloroethene	µg/L	<10	<10	<10	<1	<1
1,1-dichloroethane	µg/L	<10	<10	<10	<1	<1
Cis-1,2-dichloroethene	µg/L	<10	<10	<10	<1	<1
Bromochloromethane	µg/L	<10	<10	<10	<1	<1
Chloroform	µg/L	13	<10	<10	<1	<1
2,2-dichloropropane	µg/L	<10	<10	<10	<1	<1
1,2-dichloroethane	µg/L	<10	<10	<10	<1	<1
1,1,1-trichloroethane	µg/L	<10	<10	<10	<1	<1
1,1-dichloropropene	µg/L	<10	<10	<10	<1	<1
Cyclohexane	µg/L	<10	<10	<10	<1	<1
Carbon tetrachloride	µg/L	<10	<10	<10	<1	<1
Benzene	µg/L	<10	<10	<10	<1	<1
Dibromomethane	µg/L	<10	<10	<10	<1	<1
1,2-dichloropropane	µg/L	<10	<10	<10	<1	<1
Trichloroethene	µg/L	<10	<10	<10	<1	<1
Bromodichloromethane	µg/L	<10	<10	<10	<1	<1
trans-1,3-dichloropropene	µg/L	<10	<10	<10	<1	<1
cis-1,3-dichloropropene	µg/L	<10	<10	<10	<1	<1
1,1,2-trichloroethane	µg/L	<10	<10	<10	<1	<1
Toluene	µg/L	<10	<10	<10	<1	<1
1,3-dichloropropane	µg/L	<10	<10	<10	<1	<1
Dibromochloromethane	µg/L	<10	<10	<10	<1	<1
1,2-dibromoethane	µg/L	<10	<10	<10	<1	<1
Tetrachloroethene	µg/L	<10	<10	<10	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<10	<10	<10	<1	<1
Chlorobenzene	µg/L	<10	<10	<10	<1	<1
Ethylbenzene	µg/L	<10	<10	<10	<1	<1
Bromoform	µg/L	<10	<10	<10	<1	<1
m+p-xylene	µg/L	<20	<20	<20	<2	<2
Styrene	µg/L	<10	<10	<10	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<10	<10	<10	<1	<1
o-xylene	µg/L	<10	<10	<10	<1	<1
1,2,3-trichloropropane	µg/L	<10	<10	<10	<1	<1

VOCs in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water	112910-5 Trip Blank 10/07/2014 Water
Isopropylbenzene	µg/L	<10	<10	<10	<1	<1
Bromobenzene	µg/L	<10	<10	<10	<1	<1
n-propyl benzene	µg/L	<10	<10	<10	<1	<1
2-chlorotoluene	µg/L	<10	<10	<10	<1	<1
4-chlorotoluene	µg/L	<10	<10	<10	<1	<1
1,3,5-trimethyl benzene	µg/L	<10	<10	<10	<1	<1
Tert-butyl benzene	µg/L	<10	<10	<10	<1	<1
1,2,4-trimethyl benzene	µg/L	<10	<10	<10	<1	<1
1,3-dichlorobenzene	µg/L	<10	<10	<10	<1	<1
Sec-butyl benzene	µg/L	<10	<10	<10	<1	<1
1,4-dichlorobenzene	µg/L	<10	<10	<10	<1	<1
4-isopropyl toluene	µg/L	<10	<10	<10	<1	<1
1,2-dichlorobenzene	µg/L	<10	<10	<10	<1	<1
n-butyl benzene	µg/L	<10	<10	<10	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<10	<10	<10	<1	<1
1,2,4-trichlorobenzene	µg/L	<10	<10	<10	<1	<1
Hexachlorobutadiene	µg/L	<10	<10	<10	<1	<1
1,2,3-trichlorobenzene	µg/L	<10	<10	<10	<1	<1
Surrogate Dibromofluoromethane	%	112	118	124	90	100
Surrogate toluene-d8	%	98	97	98	98	101
Surrogate 4-BFB	%	98	102	101	102	100

SVOC's in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water
Date extracted	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Date analysed	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Phenol	µg/L	<10	<10	<10	<10
Bis (2-chloroethyl) ether	µg/L	<10	<10	<10	<10
2-Chlorophenol	µg/L	<10	<10	<10	<10
1,3-Dichlorobenzene	µg/L	<10	<10	<10	<10
1,4-Dichlorobenzene	µg/L	<10	<10	<10	<10
2-Methylphenol	µg/L	<10	<10	<10	<10
1,2-Dichlorobenzene	µg/L	<10	<10	<10	<10
bis-(2-Chloroisopropyl) ether	µg/L	<10	<10	<10	<10
3/4-Methylphenol	µg/L	<20	<20	<20	<20
N-nitrosodi-n-propylamine	µg/L	<10	<10	<10	<10
Hexachloroethane	µg/L	<10	<10	<10	<10
Nitrobenzene	µg/L	<10	<10	<10	<10
Isophorone	µg/L	<10	<10	<10	<10
2,4-Dimethylphenol	µg/L	<10	<10	<10	<10
2-Nitrophenol	µg/L	<10	<10	<10	<10
bis (2-Chloroethoxy) methane	µg/L	<10	<10	<10	<10
2,4-Dichlorophenol	µg/L	<10	<10	<10	<10
1,2,4-Trichlorobenzene	µg/L	<10	<10	<10	<10
Naphthalene	µg/L	<10	<10	<10	<10
4-Chloroaniline	µg/L	<10	<10	<10	<10
Hexachlorobutadiene	µg/L	<10	<10	<10	<10
2-Methylnaphthalene	µg/L	10	<10	<10	<10
Hexachlorocyclopentadiene	µg/L	<10	<10	<10	<10
2,4,6-Trichlorophenol	µg/L	<10	<10	<10	<10
2,4,5-Trichlorophenol	µg/L	<10	<10	<10	<10
2-Chloronaphthalene	µg/L	<10	<10	<10	<10
2-Nitroaniline	µg/L	<10	<10	<10	<10
Dimethyl phthalate	µg/L	<10	<10	<10	<10
2,6-Dinitrotoluene	µg/L	<10	<10	<10	<10
Acenaphthylene	µg/L	<10	<10	<10	<10
3-Nitroaniline	µg/L	<10	<10	<10	<10
Acenaphthene	µg/L	<10	<10	<10	<10
2,4-Dinitrophenol	µg/L	<100	<100	<100	<100
4-Nitrophenol	µg/L	<100	<100	<100	<100
Dibenzofuran	µg/L	<10	<10	<10	<10
Diethylphthalate	µg/L	<10	<10	<10	<10
4-Chlorophenylphenylether	µg/L	<10	<10	<10	<10
4-Nitroaniline	µg/L	<10	<10	<10	<10
Fluorene	µg/L	<10	<10	<10	<10
2-methyl-4,6-dinitrophenol	µg/L	<100	<100	<100	<100
Azobenzene	µg/L	<10	<10	<10	<10

SVOC's in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water
4-Bromophenylphenylether	µg/L	<10	<10	<10	<10
Hexachlorobenzene	µg/L	<10	<10	<10	<10
Pentachlorophenol	µg/L	<100	<100	<100	<100
Phenanthrene	µg/L	<10	<10	<10	<10
Anthracene	µg/L	<10	<10	<10	<10
Carbazole	µg/L	<10	<10	<10	<10
Di-n-butylphthalate	µg/L	<10	<10	<10	<10
Fluoranthene	µg/L	<10	<10	<10	<10
Pyrene	µg/L	<10	<10	<10	<10
Butylbenzylphthalate	µg/L	<10	<10	<10	<10
Bis(2-ethylhexyl) phthalate	µg/L	42	<10	<10	<10
Benzo(a)anthracene	µg/L	<10	<10	<10	<10
Chrysene	µg/L	<10	<10	<10	<10
Di-n-octylphthalate	µg/L	<10	<10	<10	<10
Benzo(b)fluoranthene	µg/L	<10	<10	<10	<10
Benzo(k)fluoranthene	µg/L	<10	<10	<10	<10
Benzo(a)pyrene	µg/L	<10	<10	<10	<10
Indeno(1,2,3-c,d)pyrene	µg/L	<10	<10	<10	<10
Dibenzo(a,h)anthracene	µg/L	<10	<10	<10	<10
Benzo(g,h,i)perylene	µg/L	<10	<10	<10	<10
Ethylmethanesulfonate	µg/L	<10	<10	<10	<10
Aniline	µg/L	<10	<10	<10	<10
Pentachloroethane	µg/L	<10	<10	<10	<10
Benzyl alcohol	µg/L	<10	<10	<10	<10
Acetophenone	µg/L	<10	<10	<10	<10
N-nitrosomorpholine	µg/L	<10	<10	<10	<10
N-nitrosopiperidine	µg/L	<10	<10	<10	<10
2,6-Dichlorophenol	µg/L	<10	<10	<10	<10
Hexachloropropene-1	µg/L	<10	<10	<10	<10
N-nitroso-n-butylamine	µg/L	<10	<10	<10	<10
Safrole	µg/L	<10	<10	<10	<10
1,2,4,5-Tetrachlorobenzene	µg/L	<10	<10	<10	<10
Trans-iso-safrole	µg/L	<10	<10	<10	<10
1,3-Dinitrobenzene	µg/L	<10	<10	<10	<10
Pentachlorobenzene	µg/L	<10	<10	<10	<10
1-Naphthylamine	µg/L	<10	<10	<10	<10
2,3,4,6-Tetrachlorophenol	µg/L	<10	<10	<10	<10
2-Naphthylamine	µg/L	<10	<10	<10	<10
5-Nitro-o-toluidine	µg/L	<10	<10	<10	<10
Diphenylamine	µg/L	<10	<10	<10	<10
Phenacetin	µg/L	<10	<10	<10	<10
Pentachloronitrobenzene	µg/L	<10	<10	<10	<10
Dinoseb	µg/L	<10	<10	<10	<10

SVOC's in water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water
Methapyrilene	µg/L	<10	<10	<10	<10
p-Dimethylaminoazobenzene	µg/L	<10	<10	<10	<10
2-Acetylaminofluorene	µg/L	<10	<10	<10	<10
7,12-Dimethylbenz(a)anthracene	µg/L	<10	<10	<10	<10
3-Methylcholanthrene	µg/L	<10	<10	<10	<10
a-BHC	µg/L	<10	<10	<10	<10
b-BHC	µg/L	<10	<10	<10	<10
g-BHC	µg/L	<10	<10	<10	<10
d-BHC	µg/L	<10	<10	<10	<10
Heptachlor	µg/L	<10	<10	<10	<10
Aldrin	µg/L	<10	<10	<10	<10
Heptachlor Epoxide	µg/L	<10	<10	<10	<10
g-Chlordane	µg/L	<10	<10	<10	<10
a-Chlordane	µg/L	<10	<10	<10	<10
Endosulfan I	µg/L	<10	<10	<10	<10
p,p'-DDE	µg/L	<10	<10	<10	<10
Dieldrin	µg/L	<10	<10	<10	<10
Endrin	µg/L	<10	<10	<10	<10
p,p'-DDD	µg/L	<10	<10	<10	<10
Endosulfan II	µg/L	<10	<10	<10	<10
Endrin Aldehyde	µg/L	<10	<10	<10	<10
p,p'-DDT	µg/L	<10	<10	<10	<10
Endosulfan Sulphate	µg/L	<10	<10	<10	<10
Surrogate 2-fluorophenol	%	63	58	67	55
Surrogate Phenol-d ₆	%	59	31	43	34
Surrogate Nitrobenzene-d ₅	%	42	80	101	84
Surrogate 2-fluorobiphenyl	%	55	85	86	84
Surrogate 2,4,6-Tribromophenol	%	41	64	71	64
Surrogate p-Terphenyl-d ₁₄	%	52	107	103	94

vTRH in Water (C6-C9) NEPM Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water
Date extracted	-	10/07/2014	10/07/2014	10/07/2014	10/07/2014
Date analysed	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
TRHC ₆ - C ₉	µg/L	<100	<100	<100	<10
TRHC ₆ - C ₁₀	µg/L	<100	<100	<100	<10
Surrogate Dibromofluoromethane	%	112	118	124	87
Surrogate toluene-d8	%	99	97	98	98
Surrogate 4-BFB	%	98	102	101	102

svTRH (C10-C40) in Water Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	112910-1 MW01 10/07/2014 Water	112910-2 MW02 10/07/2014 Water	112910-3 QC01 10/07/2014 Water	112910-4 Rinsate 10/07/2014 Water
Date extracted	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Date analysed	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
TRHC ₁₀ - C ₁₄	µg/L	1,000	76	<50	<50
TRHC ₁₅ - C ₂₈	µg/L	1,200	120	<100	<100
TRHC ₂₉ - C ₃₆	µg/L	310	<100	<100	<100
TRH>C ₁₀ - C ₁₆	µg/L	870	53	<50	<50
TRH>C ₁₆ - C ₃₄	µg/L	1,100	130	<100	<100
TRH>C ₃₄ - C ₄₀	µg/L	<200	<100	<100	<100
Surrogate o-Terphenyl	%	76	98	107	101

HM in water - dissolved				
Our Reference:	UNITS	112910-2	112910-3	112910-4
Your Reference	-----	MW02	QC01	Rinsate
Date Sampled	-----	10/07/2014	10/07/2014	10/07/2014
Type of sample		Water	Water	Water
Date prepared	-	11/07/2014	11/07/2014	11/07/2014
Date analysed	-	11/07/2014	11/07/2014	11/07/2014
Arsenic-Dissolved	µg/L	3	3	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1
Copper-Dissolved	µg/L	<1	<1	<1
Lead-Dissolved	µg/L	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	5	5	<1
Zinc-Dissolved	µg/L	5	10	<1

Miscellaneous Inorganics					
Our Reference:	UNITS	112910-1	112910-2	112910-3	112910-4
Your Reference	-----	MW01	MW02	QC01	Rinsate
Date Sampled	-----	10/07/2014	10/07/2014	10/07/2014	10/07/2014
Type of sample		Water	Water	Water	Water
Date prepared	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Date analysed	-	11/07/2014	11/07/2014	11/07/2014	11/07/2014
Ammonia as N in water	mg/L	2.2	0.32	0.53	0.020

MethodID	Methodology Summary
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-057	Ammonia - determined colourimetrically based on EPA350.1 and APHA 22nd ED 4500-NH3 F, Soils are analysed following a KCl extraction.

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
Date extracted	-			10/07/2014	[NT]	[NT]	LCS-W1	10/07/2014
Date analysed	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	108%
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	104%
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	107%
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	112%
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	113%
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	99%
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	101%
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	103%
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NR]	[NR]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in water						Base II Duplicate II %RPD		
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	79	[NT]	[NT]	LCS-W1	105%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	100	[NT]	[NT]	LCS-W1	97%
Surrogate 4-BFB	%		Org-013	102	[NT]	[NT]	LCS-W1	97%

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOC's in water						Base II Duplicate II %RPD		
Date extracted	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Date analysed	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Phenol	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	38%
Bis (2-chloroethyl) ether	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Chlorophenol	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	99%
1,3-Dichlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	56%
2-Methylphenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
1,2-Dichlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
bis-(2-Chloroisopropyl) ether	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	µg/L	20	Org-012	<20	[NT]	[NT]	[NR]	[NR]
N-nitrosodi-n-propylamine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Nitrobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Isophorone	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
bis (2-Chloroethoxy) methane	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Naphthalene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-Chloroaniline	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Methylnaphthalene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Hexachlorocyclopentadiene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,4,6-Trichlorophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,4,5-Trichlorophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Chloronaphthalene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Nitroaniline	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Dimethyl phthalate	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	65%
2,6-Dinitrotoluene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Acenaphthylene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
3-Nitroaniline	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	66%
2,4-Dinitrophenol	µg/L	100	Org-012	<100	[NT]	[NT]	[NR]	[NR]
4-Nitrophenol	µg/L	100	Org-012	<100	[NT]	[NT]	[NR]	[NR]
Dibenzofuran	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Diethylphthalate	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	74%
4-Chlorophenylphenylether	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-Nitroaniline	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOC's in water						Base II Duplicate II %RPD		
Fluorene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	µg/L	100	Org-012	<100	[NT]	[NT]	[NR]	[NR]
Azobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-Bromophenylphenylether	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Hexachlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachlorophenol	µg/L	100	Org-012	<100	[NT]	[NT]	[NR]	[NR]
Phenanthrene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Anthracene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Carbazole	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Di-n-butylphthalate	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Pyrene	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	63%
Butylbenzylphthalate	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Bis(2-ethylhexyl)phthalate	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Benzo(a)anthracene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Di-n-octylphthalate	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Benzo(b)fluoranthene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Benzo(k)fluoranthene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Ethylmethanesulfonate	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Aniline	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachloroethane	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Benzyl alcohol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Acetophenone	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
N-nitrosomorpholine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
N-nitrosopiperidine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,6-Dichlorophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Hexachloropropene-1	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
N-nitroso-n-butylamine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Safrole	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
1,2,4,5-Tetrachlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Trans-iso-safrole	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
1,3-Dinitrobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachlorobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
1-Naphthylamine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,3,4,6-Tetrachlorophenol	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Naphthylamine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
5-Nitro-o-toluidine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOC's in water						Base II Duplicate II %RPD		
Diphenylamine	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Phenacetin	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Pentachloronitrobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Dinoseb	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Methapyrilene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
p-Dimethylaminoazobenzene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2-Acetylaminofluorene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
7,12-Dimethylbenz(a)anthracene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
3-Methylcholanthrene	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
a-BHC	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
b-BHC	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
g-BHC	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
d-BHC	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Heptachlor	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Aldrin	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	77%
Heptachlor Epoxide	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
g-Chlordane	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
a-Chlordane	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Endosulfan I	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Dieldrin	µg/L	10	Org-012	<10	[NT]	[NT]	LCS-W1	52%
Endrin	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
p,p'-DDD	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Endosulfan II	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	µg/L	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%		Org-012	79	[NT]	[NT]	LCS-W1	70%
Surrogate Phenol-d6	%		Org-012	54	[NT]	[NT]	LCS-W1	44%
Surrogate Nitrobenzene-d5	%		Org-012	85	[NT]	[NT]	LCS-W1	74%
Surrogate 2-fluorobiphenyl	%		Org-012	111	[NT]	[NT]	LCS-W1	84%
Surrogate 2,4,6-Tribromophenol	%		Org-012	82	[NT]	[NT]	LCS-W1	62%
Surrogate p-Terphenyl-d14	%		Org-012	81	[NT]	[NT]	LCS-W1	72%

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH in Water (C6-C9) NEPM						Base II Duplicate II %RPD		
Date extracted	-			10/07/2014	[NT]	[NT]	LCS-W1	10/07/2014
Date analysed	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	106%
TRHC ₆ - C ₁₀	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	106%
Surrogate Dibromofluoromethane	%		Org-013	79	[NT]	[NT]	LCS-W1	121%
Surrogate toluene-d8	%		Org-013	100	[NT]	[NT]	LCS-W1	98%
Surrogate 4-BFB	%		Org-013	102	[NT]	[NT]	LCS-W1	98%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
svTRH (C10-C40) in Water						Base II Duplicate II %RPD		
Date extracted	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Date analysed	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	75%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	62%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	73%
TRH>C ₁₀ - C ₁₆	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	75%
TRH>C ₁₆ - C ₃₄	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	62%
TRH>C ₃₄ - C ₄₀	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	73%
Surrogate o-Terphenyl	%		Org-003	115	[NT]	[NT]	LCS-W1	93%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
HM in water - dissolved						Base II Duplicate II %RPD		
Date prepared	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Date analysed	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	91%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	[NT]	[NT]	LCS-W1	94%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	81%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	85%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	97%
Mercury-Dissolved	µg/L	0.05	Metals-021 CV-AAS	<0.05	[NT]	[NT]	LCS-W1	104%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	87%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	[NT]	[NT]	LCS-W1	89%

Client Reference: 43567, SOPA

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorganics						Base II Duplicate II %RPD		
Date prepared	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Date analysed	-			11/07/2014	[NT]	[NT]	LCS-W1	11/07/2014
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	[NT]	[NT]	LCS-W1	97%

Report Comments:

Total Recoverable Hydrocarbons in water:(NEPM) PQL has been raised due to the sample matrix requiring dilution.

VOC's in water:PQL has been raised due to the sample matrix requiring dilution.

Total Recoverable Hydrocarbons in water (NEPM):PQL has been raised due to the sample matrix requiring dilution.

Asbestos ID was analysed by Approved Identifier: Not applicable for this job

Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test

NA: Test not required

<: Less than

PQL: Practical Quantitation Limit

RPD: Relative Percent Difference

>: Greater than

NT: Not tested

NA: Test not required

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET40202/ 43382 / 1 - 13

Your ref : 424326

NATA Accreditation No: 14484

8 July 2014

Eurofins | MGT

Unit F3, Building F, 16, Mars Road

Lane Cove NSW 2066



Attn: Dr Robert Symons

Dear Robert

Asbestos Identification

This report presents the results of thirteen samples, forwarded by Eurofins | MGT on 8 July 2014, for analysis for asbestos. This report supersedes the report issued earlier today.

1.Introduction:Thirteen samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method (**Safer Environment Method 1 and Australian Guidelines AS 4964 - 2004 and WA/ NEPM Guidelines**)

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia/ NEPM Guidelines for the Assessment Remediation and Management of Asbestos in contaminated sites.

- 3. Results :**
- Sample No. 1. ASET40202 / 43382 / 1. BH01 - 0.2 - 0.3 - J106886.**
Approx dimensions 9.8 cm x 9.5 cm x 9.2 cm
The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, cement, brick and bitumen.
No asbestos detected.
- Sample No. 2. ASET40202 / 43382 / 2. BH02 - 0.2 - 0.3 - J106890.**
Approx dimensions 10.2 cm x 9.4 cm x 8.6 cm
The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of shale.
No asbestos detected.
- Sample No. 3. ASET40202 / 43382 / 3. BH03 - 0 - 0.1 - J106896.**
Approx dimensions 10.1 cm x 9.3 cm x 8.7 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, glass and shale.
No asbestos detected.
- Sample No. 4. ASET40202 / 43382 / 4. BH04 - 0 - 0.1 - J106899.**
Approx dimensions 9.8 cm x 9.7 cm x 9.5 cm
The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of cement and shale.
No asbestos detected.

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635

PHONE: (02) 99872183 FAX: (02)99872151 EMAIL: aset@bigpond.net.au WEBSITE: www.Ausset.com.au

OCCUPATIONAL HEALTH & SAFETY STUDIES • INDOOR AIR QUALITY SURVEYS • HAZARDOUS MATERIAL SURVEYS • RADIATION SURVEYS • ASBESTOS SURVEYS
ASBESTOS DETECTION & IDENTIFICATION • REPAIR & CALIBRATION OF SCIENTIFIC EQUIPMENT • AIRBORNE FIBRE & SILICA MONITORING



Sample No. 5. ASET40202 / 43382 / 5. BH05 - 0 - 0.1 - JI06902.

Approx dimensions 9.6 cm x 9.5 cm x 9.1 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of coal like material, glass and shale.

No asbestos detected.

Sample No. 6. ASET40202 / 43382 / 6. BH06 - 0 - 0.1 - JI06908.

Approx dimensions 9.7 cm x 9.5 cm x 9.3 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and shale.

No asbestos detected.

Sample No. 7. ASET40202 / 43382 / 7. BH07 - 0 - 0.1 - JI06911.

Approx dimensions 10.2 cm x 9.5 cm x 8.7 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and shale.

No asbestos detected.

Sample No. 8. ASET40202 / 43382 / 8. BH08 - 0 - 0.1 - JI06914.

Approx dimensions 9.7 cm x 9.3 cm x 8.8 cm

The sample consisted of a mixture of soil, stones, plant matter and fragments of cement.

No asbestos detected.

Sample No. 9. ASET40202 / 43382 / 9. BH09 - 0.2 - 0.3 - JI06918.

Approx dimensions 10.3 cm x 9.6 cm x 8.7 cm

The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, glass, and shale.

No asbestos detected.

Sample No. 10. ASET40202 / 43382 / 10. BH10 - 0.2 - 0.3 - JI06920.

Approx dimensions 9.5 cm x 9.3 cm x 8.4 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fibres[^], fragments of cement, brick, bitumin, glass and shale.

Chrysotile[^] (Approximate weight = 0.001g) asbestos detected.

Approximate total weight of asbestos = 0.001g.

Approximate total asbestos weight in AF(Loose fibres) = 0.001g.

Approximate total weight of soil = 886 g.

Approximate w/w % = 0.0001%

Sample No. 11. ASET40202 / 43382 / 11. BH11 - 0 - 0.1 - JI06921.

Approx dimensions 9.4 cm x 9.3 cm x 8.6 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of glass.

No asbestos detected.

Sample No. 12. ASET40202 / 43382 / 12. BH12 - 0 - 0.1 - JI06923.

Approx dimensions 9.6 cm x 9.1 cm x 8.7 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, cement and shale.

No asbestos detected.



Sample No. 13. ASET40202 / 43382 / 13. QC01 - J106924.

Approx dimensions 9.7 cm x 9.5 cm x 8.6 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and shale.

No asbestos detected.

Analysed and reported by,

Laxman Dias. BSc
Analyst / Approved Identifier
Approved Signatory



Accredited for compliance with ISO/IEC 17025.

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation covers only the qualitative part of the results reported.

ACM - Asbestos Containing Material - Products or materials that contain asbestos in an inert bound matrix such as cement or resin. Here taken to be sound material, even as fragments and not fitting through a 7mm X 7 mm sieve.

AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos detected in Soil/ Dust.

***denotes fibres in bonded form in fragments**

All samples indicating " No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.



AUSTRALIAN SAFER ENVIRONMENT & TECHNOLOGY PTY LTD

ABN 36 088 095 112

Our ref : ASET40202/ 43382 / 1 - 13

Your ref : 424326

NATA Accreditation No: 14484

8 July 2014

Eurofins | MGT

Unit F3, Building F, 16, Mars Road

Lane Cove NSW 2066



Attn: Dr Robert Symons

Dear Robert

Asbestos Identification

This report presents the results of thirteen samples, forwarded by Eurofins | MGT on 8 July 2014, for analysis for asbestos. This report supersedes the report issued earlier today.

1.Introduction:Thirteen samples forwarded were examined and analysed for the presence of asbestos.

2. Methods : The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining method (**Safer Environment Method 1 and Australian Guidelines AS 4964 - 2004 and WA/ NEPM Guidelines**)

This report is consistent with the analytical procedures and reporting recommendations in the Western Australia/ NEPM Guidelines for the Assessment Remediation and Management of Asbestos in contaminated sites.

3. Results : **Sample No. 1. ASET40202 / 43382 / 1. BH01 - 0.2 - 0.3 - J106886.**

Approx dimensions 9.8 cm x 9.5 cm x 9.2 cm

The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, cement, brick and bitumen.

No asbestos detected.

Sample No. 2. ASET40202 / 43382 / 2. BH01 - 0.2 - 0.3 - J106890.

Approx dimensions 10.2 cm x 9.4 cm x 8.6 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of shale.

No asbestos detected.

Sample No. 3. ASET40202 / 43382 / 3. BH03 - 0 - 0.1 - J106896.

Approx dimensions 10.1 cm x 9.3 cm x 8.7 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, glass and shale.

No asbestos detected.

Sample No. 4. ASET40202 / 43382 / 4. BH04 - 0 - 0.1 - J106899.

Approx dimensions 9.8 cm x 9.7 cm x 9.5 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of cement and shale.

No asbestos detected.

SUITE 710 / 90 GEORGE STREET, HORNSBY NSW 2077 – P.O. BOX 1644 HORNSBY WESTFIELD NSW 1635

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Sample No. 5. ASET40202 / 43382 / 5. BH05 - 0 - 0.1 - JI06902.

Approx dimensions 9.6 cm x 9.5 cm x 9.1 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of coal like material, glass and shale.

No asbestos detected.

Sample No. 6. ASET40202 / 43382 / 6. BH06 - 0 - 0.1 - JI06908.

Approx dimensions 9.7 cm x 9.5 cm x 9.3 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and shale.

No asbestos detected.

Sample No. 7. ASET40202 / 43382 / 7. BH07 - 0 - 0.1 - JI06911.

Approx dimensions 10.2 cm x 9.5 cm x 8.7 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and shale.

No asbestos detected.

Sample No. 8. ASET40202 / 43382 / 8. BH08 - 0 - 0.1 - JI06914.

Approx dimensions 9.7 cm x 9.3 cm x 8.8 cm

The sample consisted of a mixture of soil, stones, plant matter and fragments of cement.

No asbestos detected.

Sample No. 9. ASET40202 / 43382 / 9. BH09 - 0.2 - 0.3 - JI06918.

Approx dimensions 10.3 cm x 9.6 cm x 8.7 cm

The sample consisted of a mixture of soil, stones, plant matter, fragments of plaster, glass, and shale.

No asbestos detected.

Sample No. 10. ASET40202 / 43382 / 10. BH10 - 0.2 - 0.3 - JI06920.

Approx dimensions 9.5 cm x 9.3 cm x 8.4 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fibres[^], fragments of cement, brick, bitumin, glass and shale.

Chrysotile[^] (Approximate weight = 0.001g) asbestos detected.

Approximate total weight of asbestos = 0.001g.

Approximate total asbestos weight in AF(Loose fibres) = 0.001g.

Approximate total weight of soil = 886 g.

Approximate w/w % = 0.0001%

Sample No. 11. ASET40202 / 43382 / 11. BH11 - 0 - 0.1 - JI06921.

Approx dimensions 9.4 cm x 9.3 cm x 8.6 cm

The sample consisted of a mixture of clayish soil, stones, plant matter and fragments of glass.

No asbestos detected.

Sample No. 12. ASET40202 / 43382 / 12. BH12 - 0 - 0.1 - JI06923.

Approx dimensions 9.6 cm x 9.1 cm x 8.7 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of plaster, cement and shale.

No asbestos detected.



Sample No. 13. ASET40202 / 43382 / 13. QC01 - J106924.

Approx dimensions 9.7 cm x 9.5 cm x 8.6 cm

The sample consisted of a mixture of clayish soil, stones, plant matter, fragments of glass and shale.

No asbestos detected.

Analysed and reported by,

Laxman Dias. BSc
Analyst / Approved Identifier
Approved Signatory



Accredited for compliance with ISO/IEC 17025.

The approx; weights given above can be used only as a guide. They do not represent absolute weights of each kind of asbestos as it is impossible to extract all loose fibres from soil and other asbestos containing building material samples using this method. However above figures may be used as closest approximations to the exact values in each case. Estimation and/ or reporting of asbestos fibre weights in asbestos containing materials and soil is out of the Scope of the NATA Accreditation. NATA Accreditation covers only the qualitative part of the results reported.

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AF -Includes asbestos free fibres, small fibre bundles and also ACM fragments that pass through a 7mm X 7 mm sieve.

FA -Friable asbestos material such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products.

^ denotes loose fibres of relevant asbestos detected in Soil/ Dust.

***denotes fibres in bonded form in fragments**

All samples indicating " No asbestos detected" are assumed to be less than 0.001 % unless the actual approximate weight is given.

00026

CHAIN OF CUSTODY

424326



PROJECT NO.: 43567					LABORATORY BATCH NO.:																								
PROJECT NAME: SOPA					SAMPLERS: K. Sharp																								
SEND REPORT TO: m. Bottomam					SEND INVOICE TO: A. Ng					PHONE: SYDNEY 02 8245 0300 PERTH 08 9488 0100					EMAIL: ksharp@jbsg.com.au														
DATE NEEDED BY: 7/7/14					QC LEVEL: NEPM (2013)																								
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:															<div style="display: flex; justify-content: space-between;"> <div>Heavy Metals</div> <div>PAHs</div> <div>IPH/BTEX</div> <div>Asbestos</div> <div>OCs</div> <div>PCBs</div> <div>pH</div> <div>CEC</div> <div>% clay</div> </div>														
SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy Metals	PAHs	IPH/BTEX	Asbestos	OCs	PCBs	pH	CEC	% clay	NOTES:														
BH01 0-0.1	Soil	7/7/14		Jar Bag + ice																									
BH01 0.2-0.3						X	X	X	X	X	X																		
BH01 0.5-0.6																													
BH01 1.0-1.1																													
BH02 0-0.1																													
BH02 0.2-0.3						X	X	X	X	X	X	X	X	X															
BH02 0.5-0.6																													
BH02 1.0-1.1																													
BH02 1.4-1.5																													
BH02 2.0-2.1																													
BH02 2.5-2.6																													
BH03 0-0.1						X	X	X	X	X	X																		
BH03 0.2-0.3																													
BH03 0.5-0.6																													
BH04 0-0.1						X	X	X	X	X	X																		
BH04 0.2-0.3																													
BH04 0.5-0.6																													
BH05 0-0.1						X	X	X	X	X	X																		
BH05 0.2-0.3																													

RELINQUISHED BY:		METHOD OF SHIPMENT:		RECEIVED BY:		FOR RECEIVING LAB USE ONLY:	
NAME: K. Sharp	DATE: 7/7/14	CONSIGNMENT NOTE NO.		NAME: JEAN	DATE: 3:20 pm	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

00027

CHAIN OF CUSTODY

PROJECT NO.: 4543567					LABORATORY BATCH NO.:				
PROJECT NAME: SDPP					SAMPLERS: K. Sharp				
SEND REPORT TO: M. Battam			SEND INVOICE TO: G. Ng		PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100			EMAIL: ksharp@jbsg.com.au mbattam@jbsg.com.au	
DATE NEEDED BY: 27 turn around					QC LEVEL: NEPM (2013)				
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL: 27									

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Heavy metals	AsHs	TPH/BTEX	Asbestos	OCs	PCBs	pH	CEC	% Clay	NOTES:
BH05 0.5-0.6	Soil	7/7/14		Jar + Bag + Ice											
BH05 1.0-1.1															
BH05 1.5-1.6															
BH05 2.0-2.1															
BH06 0-0.1						X	X	X	X	X					
BH06 0.2-0.3															
BH06 0.5-0.6															
BH07 0-0.1						X	X	X	X	X					
BH07 0.2-0.3															
BH07 0.5-0.6															
BH08 0-0.1						X	X	X	X	X					
BH08 0.2-0.3															
BH08 0.5-0.6												X	X	X	
BH09 0-0.1															
BH09 0.2-0.3						X	X	X	X	X					
BH10 0-0.1															
BH10 0.2-0.3						X	X	X	X	X					
BH11 0-0.1						X	X	X	X	X					
BH11 0.2-0.3															

RELINQUISHED BY:		METHOD OF SHIPMENT:		RECEIVED BY:		FOR RECEIVING LAB USE ONLY:	
NAME: K. Sharp	DATE: 7/7/14	CONSIGNMENT NOTE NO.		NAME: Jean	DATE: 3:20pm	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

00028

CHAIN OF CUSTODY

424326

[illegible]

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**
Contact name: Michelle Battam
Client job number: SOPA 43567
COC number: Not provided
Turn around time: 1 Day
Date/Time received: Jul 7, 2014 3:20 PM
Eurofins | mgt reference: **424326**

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 : 3 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.
- ☒ Organic samples had Teflon liners.
- ☒ Sample containers for volatile analysis received with zero headspace.
- ☒ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Extra jar received BH07 2.5-2.6 however BH02 2.5-2.6 is missing. BH07 2.5-2.6 labelled as BH02 2.5-2.6| Extra bag received HA05 0.5-0.6 has been placed on hold.

Contact notes

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

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Michelle Battam - mbattam@jbsgroup.com.au.

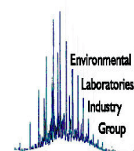
Eurofins | mgt Sample Receipt



Environmental Laboratory
Air Analysis
Water Analysis
Soil Contamination Analysis

NATA Accreditation
Stack Emission Sampling & Analysis
Trade Waste Sampling & Analysis
Groundwater Sampling & Analysis

38 Years of Environmental Analysis & Experience



Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID													
101 D-0.1	Jul 07, 2014		Soil	S14-JI06885					X								
101 D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06886		X	X				X	X	X		X	X	X
101 D-0.5-0.6	Jul 07, 2014		Soil	S14-JI06887					X								
101 I-0-1.1	Jul 07, 2014		Soil	S14-JI06888					X								
102 D-0.1	Jul 07, 2014		Soil	S14-JI06889					X								
101 D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06890	X	X	X	X		X	X	X	X		X	X	X
102 D-0.5-0.6	Jul 07, 2014		Soil	S14-JI06891					X								
102 I-0-1.1	Jul 07, 2014		Soil	S14-JI06892					X								
102 I-1.4-1.5	Jul 07, 2014		Soil	S14-JI06893					X								
102 D-0.2-2.1	Jul 07, 2014		Soil	S14-JI06894					X								



eurofins

mgt

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

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
102	2.5-2.6	Jul 07, 2014		Soil	S14-JI06895				X								
103	0-0.1	Jul 07, 2014		Soil	S14-JI06896	X	X				X	X	X		X	X	X
103	0.2-0.3	Jul 07, 2014		Soil	S14-JI06897				X								
103	0.5-0.6	Jul 07, 2014		Soil	S14-JI06898				X								
104	0-0.1	Jul 07, 2014		Soil	S14-JI06899	X	X				X	X	X		X	X	X
104	0.2-0.3	Jul 07, 2014		Soil	S14-JI06900				X								
104	0.5-0.6	Jul 07, 2014		Soil	S14-JI06901				X								
105	0-0.1	Jul 07, 2014		Soil	S14-JI06902	X	X				X	X	X		X	X	X
105	0.2-0.3	Jul 07, 2014		Soil	S14-JI06903				X								
105	0.5-0.6	Jul 07, 2014		Soil	S14-JI06904				X								
105	1.0-1.1	Jul 07, 2014		Soil	S14-JI06905				X								



Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
105	1.5-1.6	Jul 07, 2014		Soil	S14-JI06906				X								
105	2.0-2.1	Jul 07, 2014		Soil	S14-JI06907				X								
106	0-0.1	Jul 07, 2014		Soil	S14-JI06908		X	X			X	X	X		X	X	X
106	0.2-0.3	Jul 07, 2014		Soil	S14-JI06909				X								
106	0.5-0.6	Jul 07, 2014		Soil	S14-JI06910				X								
107	0-0.1	Jul 07, 2014		Soil	S14-JI06911		X	X			X	X	X		X	X	X
107	0.2-0.3	Jul 07, 2014		Soil	S14-JI06912				X								
107	0.5-0.6	Jul 07, 2014		Soil	S14-JI06913				X								
108	0-0.1	Jul 07, 2014		Soil	S14-JI06914		X	X			X	X	X		X	X	X
108	0.2-0.3	Jul 07, 2014		Soil	S14-JI06915				X								
108	0.5-0.6	Jul 07, 2014		Soil	S14-JI06916	X	X		X	X							

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
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Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
109	D-0.1	Jul 07, 2014		Soil	S14-JI06917				X								
109	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06918		X	X			X	X	X		X	X	X
110	D-0.1	Jul 07, 2014		Soil	S14-JI06919				X								
110	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06920		X	X			X	X	X		X	X	X
111	D-0.1	Jul 07, 2014		Soil	S14-JI06921		X	X			X	X	X		X	X	X
111	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06922				X								
112	D-0.1	Jul 07, 2014		Soil	S14-JI06923		X	X			X	X	X		X	X	X
101		Jul 07, 2014		Soil	S14-JI06924		X	X			X	X	X		X	X	X
102		Jul 07, 2014		Soil	S14-JI06925				X								
103		Jul 07, 2014		Soil	S14-JI06926				X								
NSATE		Jul 07, 2014		Water	S14-JI06927						X	X		X	X	X	X

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Total Recoverable Hydrocarbons	
Polychlorinated Biphenyls (PCB)						
BTEX						
Metals M8 filtered						
Metals M8						
Organochlorine Pesticides						
Polycyclic Aromatic Hydrocarbons						
pH (1:5 Aqueous extract)						
HOLD						
Cation Exchange Capacity						
Asbestos (% weight as per W/A Guidelines)						
% Moisture						
% Clay						
Laboratory where analysis is conducted						
Bourne Laboratory - NATA Site # 1254 & 14271						
Ridley Laboratory - NATA Site # 18217						
Isbane Laboratory - NATA Site # 20794						
Internal Laboratory						
RIP SPIKE	Jul 07, 2014		Water	S14-JI06928		
RIP BLANK	Jul 07, 2014		Water	S14-JI06929		
105 0.5-0.6	Jul 07, 2014		Soil	S14-JI07023		

Certificate of Analysis

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: Kate Sharp

Report 424326-S-V2
Client Reference SOPA 43567
Received Date Jul 07, 2014

Client Sample ID			BH01 0.2-0.3	BH02 0.2-0.3	BH03 0-0.1	BH04 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06886	S14-JI06890	S14-JI06896	S14-JI06899
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
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	28	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	55	71
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	79
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	83	150
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	0.4	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	0.5	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	91	88	89
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	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	110
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	140
Polycyclic Aromatic Hydrocarbons						
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	< 0.5	< 0.5	< 0.5	0.02409638554 21687
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH01 0.2-0.3	BH02 0.2-0.3	BH03 0-0.1	BH04 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06886	S14-JI06890	S14-JI06896	S14-JI06899
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
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	< 0.5	< 0.5	< 0.5	< 0.5
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
2-Fluorobiphenyl (surr.)	1	%	79	98	93	99
p-Terphenyl-d14 (surr.)	1	%	102	128	125	125
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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchloredate (surr.)	1	%	129	104	115	126
Tetrachloro-m-xylene (surr.)	1	%	117	93	90	95
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchloredate (surr.)	1	%	129	104	115	126
% Clay	1	%	-	29	-	-
pH (1:5 Aqueous extract)	0.1	units	-	7.0	-	-
% Moisture	0.1	%	6.8	10	14	17
Asbestos (% weight as per WA Guidelines)			see attached	see attached	see attached	see attached
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	-	15	-	-

Client Sample ID			BH01 0.2-0.3	BH02 0.2-0.3	BH03 0-0.1	BH04 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06886	S14-JI06890	S14-JI06896	S14-JI06899
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	5.0	5.2	3.2	4.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.7	5.4	9.8	7.7
Copper	5	mg/kg	12	24	16	28
Lead	5	mg/kg	14	8.9	12	21
Mercury	0.05	mg/kg	< 0.05	0.09	< 0.05	0.18
Nickel	5	mg/kg	9.3	6.1	8.0	10.0
Zinc	5	mg/kg	25	27	46	150

Client Sample ID			BH05 0-0.1	BH06 0-0.1	BH07 0-0.1	BH08 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06902	S14-JI06908	S14-JI06911	S14-JI06914
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
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	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 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	0.3	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	0.4	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	100	99	95	99
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	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						
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

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH05 0-0.1 Soil S14-JI06902 Jul 07, 2014	BH06 0-0.1 Soil S14-JI06908 Jul 07, 2014	BH07 0-0.1 Soil S14-JI06911 Jul 07, 2014	BH08 0-0.1 Soil S14-JI06914 Jul 07, 2014
Polycyclic Aromatic Hydrocarbons						
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	< 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	< 0.5	< 0.5	< 0.5	< 0.5
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
2-Fluorobiphenyl (surr.)	1	%	97	108	113	98
p-Terphenyl-d14 (surr.)	1	%	124	116	123	125
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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	113	112	114	99
Tetrachloro-m-xylene (surr.)	1	%	89	91	128	95
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	113	112	114	99
% Moisture	0.1	%	9.8	8.8	16	5.1
Asbestos (% weight as per WA Guidelines)			see attached	see attached	see attached	see attached

Client Sample ID			BH05 0-0.1	BH06 0-0.1	BH07 0-0.1	BH08 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06902	S14-JI06908	S14-JI06911	S14-JI06914
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.1	4.0	7.3	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	11	9.3	13	9.3
Copper	5	mg/kg	13	16	29	31
Lead	5	mg/kg	11	14	24	5.4
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	2.0
Nickel	5	mg/kg	6.0	7.8	5.0	44
Zinc	5	mg/kg	36	36	64	46

Client Sample ID			BH08 0.5-0.6	BH09 0.2-0.3	BH10 0.2-0.3	BH11 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06916	S14-JI06918	S14-JI06920	S14-JI06921
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	-	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	-	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	-	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	92	89	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	-	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	-	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	BH08 0.5-0.6 Soil S14-JI06916 Jul 07, 2014	BH09 0.2-0.3 Soil S14-JI06918 Jul 07, 2014	BH10 0.2-0.3 Soil S14-JI06920 Jul 07, 2014	BH11 0-0.1 Soil S14-JI06921 Jul 07, 2014
Polycyclic Aromatic Hydrocarbons						
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound)*	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound)*	0.5	mg/kg	-	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound)*	0.5	mg/kg	-	1.2	1.2	1.2
2-Fluorobiphenyl (surr.)	1	%	-	99	99	97
p-Terphenyl-d14 (surr.)	1	%	-	125	126	124
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	-	95	121	132
Tetrachloro-m-xylene (surr.)	1	%	-	96	95	128
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	-	95	121	132
% Clay	1	%	65	-	-	-
pH (1:5 Aqueous extract)	0.1	units	6.4	-	-	-
% Moisture	0.1	%	22	7.7	16	29
Asbestos (% weight as per WA Guidelines)			-	see attached	see attached	see attached

Client Sample ID			BH08 0.5-0.6	BH09 0.2-0.3	BH10 0.2-0.3	BH11 0-0.1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			S14-JI06916	S14-JI06918	S14-JI06920	S14-JI06921
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit				
Ion Exchange Properties						
Cation Exchange Capacity	0.05	meq/100g	15	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	-	6.4	9.5	3.9
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	9.0	12	13
Copper	5	mg/kg	-	19	16	15
Lead	5	mg/kg	-	22	18	16
Mercury	0.05	mg/kg	-	4.8	< 0.05	< 0.05
Nickel	5	mg/kg	-	11	< 5	5.4
Zinc	5	mg/kg	-	53	24	42

Client Sample ID			BH12 0-0.1	QC01
Sample Matrix			Soil	Soil
Eurofins mgt Sample No.			S14-JI06923	S14-JI06924
Date Sampled			Jul 07, 2014	Jul 07, 2014
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	40
TRH C15-C28	50	mg/kg	< 50	90
TRH C29-C36	50	mg/kg	< 50	75
TRH C10-36 (Total)	50	mg/kg	< 50	210
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	0.8
o-Xylene	0.1	mg/kg	< 0.1	0.3
Xylenes - Total	0.3	mg/kg	< 0.3	1.0
4-Bromofluorobenzene (surr.)	1	%	91	93
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	55
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	55
TRH >C16-C34	100	mg/kg	< 100	130
TRH >C34-C40	100	mg/kg	< 100	< 100
Polycyclic Aromatic Hydrocarbons				
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

Client Sample ID			BH12 0-0.1	QC01
Sample Matrix			Soil	Soil
Eurofins mgt Sample No.			S14-JI06923	S14-JI06924
Date Sampled			Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
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
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
2-Fluorobiphenyl (surr.)	1	%	98	94
p-Terphenyl-d14 (surr.)	1	%	126	121
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	0.2	mg/kg	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1
Dibutylchloredate (surr.)	1	%	106	126
Tetrachloro-m-xylene (surr.)	1	%	78	105
Polychlorinated Biphenyls (PCB)				
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5
Dibutylchloredate (surr.)	1	%	106	126
% Moisture	0.1	%	9.1	22
Asbestos (% weight as per WA Guidelines)			see attached	see attached

Client Sample ID			BH12 0-0.1	QC01
Sample Matrix			Soil	Soil
Eurofins mgt Sample No.			S14-JI06923	S14-JI06924
Date Sampled			Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	2	mg/kg	4.9	3.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4
Chromium	5	mg/kg	9.4	10
Copper	5	mg/kg	20	16
Lead	5	mg/kg	15	13
Mercury	0.05	mg/kg	< 0.05	< 0.05
Nickel	5	mg/kg	5.8	7.3
Zinc	5	mg/kg	62	49

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 - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Jul 07, 2014	14 Day
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LM-LTM-ORG2010	Sydney	Jul 07, 2014	14 Day
BTEX - Method: E029/E016 BTEX	Sydney	Jul 07, 2014	14 Day
Polycyclic Aromatic Hydrocarbons - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Jul 07, 2014	14 Day
Organochlorine Pesticides - Method: E013 Organochlorine Pesticides (OC)	Sydney	Jul 07, 2014	14 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Jul 07, 2014	28 Day
% Clay - Method: LTM-GEN-7040	Brisbane	Jul 09, 2014	6 Month
pH (1:5 Aqueous extract) - Method: E018.2 pH	Sydney	Jul 08, 2014	7 Day
% Moisture - Method: E005 Moisture Content	Sydney	Jul 07, 2014	28 Day
Ion Exchange Properties	Melbourne	Jul 09, 2014	
Metals M8 - Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS	Sydney	Jul 07, 2014	28 Day

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID													
101 0-0.1	Jul 07, 2014		Soil	S14-JI06885					X								
101 0.2-0.3	Jul 07, 2014		Soil	S14-JI06886		X	X				X	X	X		X	X	X
101 0.5-0.6	Jul 07, 2014		Soil	S14-JI06887					X								
101 1.0-1.1	Jul 07, 2014		Soil	S14-JI06888					X								
102 0-0.1	Jul 07, 2014		Soil	S14-JI06889					X								
102 0.2-0.3	Jul 07, 2014		Soil	S14-JI06890	X	X	X	X		X	X	X	X		X	X	X
102 0.5-0.6	Jul 07, 2014		Soil	S14-JI06891					X								
102 1.0-1.1	Jul 07, 2014		Soil	S14-JI06892					X								
102 1.4-1.5	Jul 07, 2014		Soil	S14-JI06893					X								
102 2.0-2.1	Jul 07, 2014		Soil	S14-JI06894					X								

Lane Cove West, NSW, Australia, 2066
Eurofins / mgt Unit F6, Building F, 16 Mars Road
First Reported: Jul 10, 2014
Date Reported: Jul 11, 2014



eurofins

mgt

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

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

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Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
102	2.5-2.6	Jul 07, 2014		Soil	S14-JI06895				X								
103	0-0.1	Jul 07, 2014		Soil	S14-JI06896	X	X				X	X	X		X	X	X
103	0.2-0.3	Jul 07, 2014		Soil	S14-JI06897				X								
103	0.5-0.6	Jul 07, 2014		Soil	S14-JI06898				X								
104	0-0.1	Jul 07, 2014		Soil	S14-JI06899	X	X				X	X	X		X	X	X
104	0.2-0.3	Jul 07, 2014		Soil	S14-JI06900				X								
104	0.5-0.6	Jul 07, 2014		Soil	S14-JI06901				X								
105	0-0.1	Jul 07, 2014		Soil	S14-JI06902	X	X				X	X	X		X	X	X
105	0.2-0.3	Jul 07, 2014		Soil	S14-JI06903				X								
105	0.5-0.6	Jul 07, 2014		Soil	S14-JI06904				X								
105	1.0-1.1	Jul 07, 2014		Soil	S14-JI06905				X								



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mgt

Melbourne
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Oakleigh VIC 3166
Phone: +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

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Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
105	1.5-1.6	Jul 07, 2014		Soil	S14-JI06906				X								
105	2.0-2.1	Jul 07, 2014		Soil	S14-JI06907				X								
106	0-0.1	Jul 07, 2014		Soil	S14-JI06908	X	X				X	X	X		X	X	X
106	0.2-0.3	Jul 07, 2014		Soil	S14-JI06909				X								
106	0.5-0.6	Jul 07, 2014		Soil	S14-JI06910				X								
107	0-0.1	Jul 07, 2014		Soil	S14-JI06911	X	X				X	X	X		X	X	X
107	0.2-0.3	Jul 07, 2014		Soil	S14-JI06912				X								
107	0.5-0.6	Jul 07, 2014		Soil	S14-JI06913				X								
108	0-0.1	Jul 07, 2014		Soil	S14-JI06914		X	X			X	X	X		X	X	X
108	0.2-0.3	Jul 07, 2014		Soil	S14-JI06915				X								
108	0.5-0.6	Jul 07, 2014		Soil	S14-JI06916	X	X		X	X							



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NATA # 1261
Site # 1254 & 14271

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: -ALL INVOICES

Eurofins | mgt Client Manager: Jean Heng

Sample Detail						% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																		
Melbourne Laboratory - NATA Site # 1254 & 14271									X									
Sydney Laboratory - NATA Site # 18217							X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794						X												
Internal Laboratory								X										
109	D-0.1	Jul 07, 2014		Soil	S14-JI06917					X								
109	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06918		X	X				X	X	X		X	X	X
110	D-0.1	Jul 07, 2014		Soil	S14-JI06919					X								
110	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06920		X	X				X	X	X		X	X	X
111	D-0.1	Jul 07, 2014		Soil	S14-JI06921		X	X				X	X	X		X	X	X
111	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06922					X								
112	D-0.1	Jul 07, 2014		Soil	S14-JI06923		X	X				X	X	X		X	X	X
101		Jul 07, 2014		Soil	S14-JI06924		X	X				X	X	X		X	X	X
102		Jul 07, 2014		Soil	S14-JI06925					X								
103		Jul 07, 2014		Soil	S14-JI06926					X								
NSA	TE	Jul 07, 2014		Water	S14-JI06927							X	X		X	X	X	X

Company Name: JBS & G (NSW & WA) Pty Ltd
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 Sydney
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Sample Detail					Total Recoverable Hydrocarbons	Polychlorinated Biphenyls (PCB)	BTEX	Metals M8 filtered	Metals M8	Organochlorine Pesticides	Polycyclic Aromatic Hydrocarbons	pH (1:5 Aqueous extract)	HOLD	Cation Exchange Capacity	Asbestos (% weight as per W/A Guidelines)	% Moisture	% Clay
Laboratory where analysis is conducted																	
Bourne Laboratory - NATA Site # 1254 & 14271													X				
Ridley Laboratory - NATA Site # 18217							X	X	X	X	X	X			X		
Isbane Laboratory - NATA Site # 20794																X	
Internal Laboratory														X			
RIP SPIKE	Jul 07, 2014		Water	S14-JI06928													
RIP BLANK	Jul 07, 2014		Water	S14-JI06929			X										
105 0.5-0.6	Jul 07, 2014		Soil	S14-JI07023								X					

Eurofins | mgt 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. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. 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 Acknowledgment.

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

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

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. 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.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
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 20-130%.

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, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene 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 Arochlor 1260 in Matrix Spikes and LCS's.
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 RPD's 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	
TRH C10-36 (Total)	mg/kg	< 0			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 C6-C10 less BTEX (F1)	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
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	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB	mg/kg	< 0			0.5	Pass	
Method Blank							
Ion Exchange Properties							
Cation Exchange Capacity	meq/100g	< 0.05			0.05	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	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	97			70-130	Pass	
TRH C10-C14	%	86			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	117			70-130	Pass	
Toluene	%	98			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	95			70-130	Pass	
Xylenes - Total	%	95			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	112			70-130	Pass	
TRH C6-C10	%	98			70-130	Pass	
TRH >C10-C16	%	92			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthylene	%	92			70-130	Pass	
Anthracene	%	93			70-130	Pass	
Benz(a)anthracene	%	91			70-130	Pass	
Benzo(a)pyrene	%	109			70-130	Pass	
Benzo(b&j)fluoranthene	%	79			70-130	Pass	
Benzo(g,h,i)perylene	%	87			70-130	Pass	
Benzo(k)fluoranthene	%	109			70-130	Pass	
Chrysene	%	103			70-130	Pass	
Dibenz(a,h)anthracene	%	90			70-130	Pass	
Fluoranthene	%	116			70-130	Pass	
Fluorene	%	101			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	90			70-130	Pass	
Naphthalene	%	92			70-130	Pass	
Phenanthrene	%	85			70-130	Pass	
Pyrene	%	114			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	91			70-130	Pass	
4,4'-DDD	%	99			70-130	Pass	
4,4'-DDE	%	88			70-130	Pass	
4,4'-DDT	%	70			70-130	Pass	
a-BHC	%	95			70-130	Pass	
Aldrin	%	92			70-130	Pass	
b-BHC	%	91			70-130	Pass	
d-BHC	%	83			70-130	Pass	
Dieldrin	%	94			70-130	Pass	
Endosulfan I	%	86			70-130	Pass	
Endosulfan II	%	95			70-130	Pass	
Endosulfan sulphate	%	81			70-130	Pass	
Endrin	%	92			70-130	Pass	
Endrin aldehyde	%	82			70-130	Pass	
Endrin ketone	%	77			70-130	Pass	
g-BHC (Lindane)	%	79			70-130	Pass	
Heptachlor	%	88			70-130	Pass	
Heptachlor epoxide	%	91			70-130	Pass	
Hexachlorobenzene	%	87			70-130	Pass	
Methoxychlor	%	72			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	106			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			70-130	Pass	
Cadmium	%	99			70-130	Pass	
Chromium	%	95			70-130	Pass	
Copper	%	96			70-130	Pass	
Lead	%	93			70-130	Pass	
Mercury	%	86			70-130	Pass	
Nickel	%	94			70-130	Pass	
Zinc	%	98			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S14-JI06890	CP	%	95			70-130	Pass	
4,4'-DDD	S14-JI06890	CP	%	104			70-130	Pass	
4,4'-DDE	S14-JI06890	CP	%	104			70-130	Pass	
4,4'-DDT	S14-JI06890	CP	%	100			70-130	Pass	
a-BHC	S14-JI06890	CP	%	95			70-130	Pass	
Aldrin	S14-JI06890	CP	%	92			70-130	Pass	
b-BHC	S14-JI06890	CP	%	85			70-130	Pass	
d-BHC	S14-JI06890	CP	%	94			70-130	Pass	
Dieldrin	S14-JI06890	CP	%	102			70-130	Pass	
Endosulfan I	S14-JI06890	CP	%	93			70-130	Pass	
Endosulfan II	S14-JI06890	CP	%	102			70-130	Pass	
Endosulfan sulphate	S14-JI06890	CP	%	113			70-130	Pass	
Endrin	S14-JI06890	CP	%	103			70-130	Pass	
Endrin aldehyde	S14-JI06890	CP	%	95			70-130	Pass	
Endrin ketone	S14-JI06890	CP	%	115			70-130	Pass	
g-BHC (Lindane)	S14-JI06890	CP	%	92			70-130	Pass	
Heptachlor	S14-JI06890	CP	%	95			70-130	Pass	
Heptachlor epoxide	S14-JI06890	CP	%	97			70-130	Pass	
Hexachlorobenzene	S14-JI06890	CP	%	97			70-130	Pass	
Methoxychlor	S14-JI06890	CP	%	102			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S14-JI06890	CP	%	96			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S14-JI06890	CP	%	92			70-130	Pass	
Cadmium	S14-JI06890	CP	%	93			70-130	Pass	
Chromium	S14-JI06890	CP	%	94			70-130	Pass	
Copper	S14-JI06890	CP	%	96			70-130	Pass	
Lead	S14-JI06890	CP	%	93			70-130	Pass	
Mercury	S14-JI06890	CP	%	72			70-130	Pass	
Nickel	S14-JI06890	CP	%	96			70-130	Pass	
Zinc	S14-JI06890	CP	%	84			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S14-JI07024	NCP	%	95			70-130	Pass	
Cadmium	S14-JI06715	NCP	%	102			70-130	Pass	
Chromium	S14-JI06715	NCP	%	101			70-130	Pass	
Mercury	S14-JI07024	NCP	%	100			70-130	Pass	
Nickel	S14-JI06715	NCP	%	104			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S14-JI06911	CP	%	102			70-130	Pass	
TRH C10-C14	S14-JI06911	CP	%	83			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S14-JI06911	CP	%	90			70-130	Pass	
Toluene	S14-JI06911	CP	%	87			70-130	Pass	
Ethylbenzene	S14-JI06911	CP	%	101			70-130	Pass	
m&p-Xylenes	S14-JI06911	CP	%	105			70-130	Pass	
o-Xylene	S14-JI06911	CP	%	104			70-130	Pass	
Xylenes - Total	S14-JI06911	CP	%	105			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	S14-JI06911	CP	%	104			70-130	Pass	
TRH C6-C10	S14-JI06911	CP	%	97			70-130	Pass	
TRH >C10-C16	S14-JI06911	CP	%	95			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S14-JI06911	CP	%	93			70-130	Pass	
Acenaphthylene	S14-JI06911	CP	%	92			70-130	Pass	
Anthracene	S14-JI06911	CP	%	87			70-130	Pass	
Benz(a)anthracene	S14-JI06911	CP	%	110			70-130	Pass	
Benzo(a)pyrene	S14-JI06911	CP	%	109			70-130	Pass	
Benzo(b&j)fluoranthene	S14-JI06911	CP	%	83			70-130	Pass	
Benzo(g,h,i)perylene	S14-JI06911	CP	%	89			70-130	Pass	
Benzo(k)fluoranthene	S14-JI06911	CP	%	100			70-130	Pass	
Chrysene	S14-JI06911	CP	%	102			70-130	Pass	
Dibenz(a,h)anthracene	S14-JI06911	CP	%	92			70-130	Pass	
Fluoranthene	S14-JI06911	CP	%	110			70-130	Pass	
Fluorene	S14-JI06911	CP	%	99			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S14-JI06911	CP	%	93			70-130	Pass	
Naphthalene	S14-JI06911	CP	%	90			70-130	Pass	
Phenanthrene	S14-JI06911	CP	%	87			70-130	Pass	
Pyrene	S14-JI06911	CP	%	124			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	S14-JI06886	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S14-JI06886	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S14-JI06886	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S14-JI06886	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S14-JI06886	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S14-JI06886	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
Chlordanes - Total	S14-JI06886	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
4,4'-DDD	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	S14-JI06886	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
Toxaphene	S14-JI06886	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD		
Aroclor-1016	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1232	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1242	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1248	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1254	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Aroclor-1260	S14-JI06886	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S14-JI06886	CP	mg/kg	5.0	5.0	<1	30%	Pass
Cadmium	S14-JI06886	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	S14-JI06886	CP	mg/kg	6.7	5.7	16	30%	Pass
Copper	S14-JI06886	CP	mg/kg	12	15	24	30%	Pass
Lead	S14-JI06886	CP	mg/kg	14	17	15	30%	Pass
Mercury	S14-JI06886	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Nickel	S14-JI06886	CP	mg/kg	9.3	8.7	7.0	30%	Pass
Zinc	S14-JI06886	CP	mg/kg	25	31	22	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
% Clay	M14-My16442	NCP	%	< 1	< 1	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	S14-JI06715	NCP	mg/kg	26	58	97	30%	Fail Q08
Cadmium	S14-JI06714	NCP	mg/kg	< 0.4	0.40	18	30%	Pass
Chromium	S14-JI06714	NCP	mg/kg	13	14	12	30%	Pass
Copper	S14-JI06715	NCP	mg/kg	57	95	120	30%	Fail Q08
Lead	S14-JI06715	NCP	mg/kg	140	170	110	30%	Fail Q08
Mercury	S14-JI04489	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Nickel	S14-JI06714	NCP	mg/kg	7.4	9.3	22	30%	Pass
Zinc	S14-JI06714	NCP	mg/kg	130	140	9.0	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD		
TRH C6-C9	S14-JI06908	CP	mg/kg	< 20	< 20	<1	30%	Pass

Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	S14-JI06908	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	S14-JI06908	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	S14-JI06908	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	S14-JI06908	CP	mg/kg	0.2	0.2	<1	30%	Pass
o-Xylene	S14-JI06908	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total	S14-JI06908	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	S14-JI06908	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	S14-JI06908	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10 less BTEX (F1)	S14-JI06908	CP	mg/kg	< 20	< 20	<1	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	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

Jean Heng	Client Services
Bob Symons	Senior Analyst-Inorganic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Ivan Taylor	Senior Analyst-Metal (NSW)
Richard Corner	Senior Analyst-Inorganic (QLD)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Dr. Bob Symons

Laboratory 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

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Certificate of Analysis

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: Michelle Battam

Report 424326-W
Client Reference SOPA 43567
Received Date Jul 07, 2014

Client Sample ID			RINSATE	TRIP SPIKE	TRIP BLANK
Sample Matrix			Water	Water	Water
Eurofins mgt Sample No.			S14-JI06927	S14-JI06928	S14-JI06929
Date Sampled			Jul 07, 2014	Jul 07, 2014	Jul 07, 2014
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	< 0.02	-	-
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	88%	< 0.001
Toluene	0.001	mg/L	< 0.001	88%	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	98%	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	100%	< 0.002
o-Xylene	0.001	mg/L	< 0.001	101%	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	100%	< 0.003
4-Bromofluorobenzene (surr.)	1	%	70	102	74
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene ^{N02}	0.02	mg/L	< 0.02	-	-
TRH C6-C10	0.02	mg/L	< 0.02	-	-
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	-	-
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	-	-
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	-	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	RINSATE Water S14-JI06927 Jul 07, 2014	TRIP SPIKE Water S14-JI06928 Jul 07, 2014	TRIP BLANK Water S14-JI06929 Jul 07, 2014
Polycyclic Aromatic Hydrocarbons					
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	%	79	-	-
p-Terphenyl-d14 (surr.)	1	%	79	-	-
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	-	-
Dibutylchloredate (surr.)	1	%	108	-	-
Tetrachloro-m-xylene (surr.)	1	%	80	-	-
Polychlorinated Biphenyls (PCB)					
Aroclor-1016	0.005	mg/L	< 0.005	-	-
Aroclor-1232	0.005	mg/L	< 0.005	-	-
Aroclor-1242	0.005	mg/L	< 0.005	-	-
Aroclor-1248	0.005	mg/L	< 0.005	-	-
Aroclor-1254	0.005	mg/L	< 0.005	-	-
Aroclor-1260	0.005	mg/L	< 0.005	-	-
Total PCB	0.005	mg/L	< 0.005	-	-
Dibutylchloredate (surr.)	1	%	108	-	-
Heavy Metals					
Arsenic (filtered)	0.001	mg/L	< 0.001	-	-
Cadmium (filtered)	0.0001	mg/L	< 0.0001	-	-
Chromium (filtered)	0.001	mg/L	< 0.001	-	-
Copper (filtered)	0.001	mg/L	< 0.001	-	-
Lead (filtered)	0.001	mg/L	< 0.001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	-
Nickel (filtered)	0.001	mg/L	< 0.001	-	-
Zinc (filtered)	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 - 1999 NEPM Fractions	Sydney	Jul 07, 2014	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 07, 2014	7 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Jul 07, 2014	14 Day
- Method: E029/E016 BTEX			
Polycyclic Aromatic Hydrocarbons	Sydney	Jul 07, 2014	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Jul 07, 2014	7 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Jul 07, 2014	7 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8 filtered	Sydney	Jul 07, 2014	28 Day
- Method: E020/E030 Filtered Metals in Water & E026 Mercury			

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID													
101 D-0.1	Jul 07, 2014		Soil	S14-JI06885					X								
101 D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06886		X	X				X	X	X		X	X	X
101 D-0.5-0.6	Jul 07, 2014		Soil	S14-JI06887					X								
101 D-0.1-1.1	Jul 07, 2014		Soil	S14-JI06888					X								
102 D-0.1	Jul 07, 2014		Soil	S14-JI06889					X								
101 D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06890	X	X	X	X		X	X	X	X		X	X	X
102 D-0.5-0.6	Jul 07, 2014		Soil	S14-JI06891					X								
102 D-0.1-1.1	Jul 07, 2014		Soil	S14-JI06892					X								
102 D-0.4-1.5	Jul 07, 2014		Soil	S14-JI06893					X								
102 D-0.2-2.1	Jul 07, 2014		Soil	S14-JI06894					X								



eurofins

mgt

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

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
102	2.5-2.6	Jul 07, 2014		Soil	S14-JI06895				X								
103	0-0.1	Jul 07, 2014		Soil	S14-JI06896	X	X				X	X	X		X	X	X
103	0.2-0.3	Jul 07, 2014		Soil	S14-JI06897				X								
103	0.5-0.6	Jul 07, 2014		Soil	S14-JI06898				X								
104	0-0.1	Jul 07, 2014		Soil	S14-JI06899	X	X				X	X	X		X	X	X
104	0.2-0.3	Jul 07, 2014		Soil	S14-JI06900				X								
104	0.5-0.6	Jul 07, 2014		Soil	S14-JI06901				X								
105	0-0.1	Jul 07, 2014		Soil	S14-JI06902	X	X				X	X	X		X	X	X
105	0.2-0.3	Jul 07, 2014		Soil	S14-JI06903				X								
105	0.5-0.6	Jul 07, 2014		Soil	S14-JI06904				X								
105	1.0-1.1	Jul 07, 2014		Soil	S14-JI06905				X								



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mgt

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

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SOPA 43567

Order No.:
Report #: 424326
Phone: 02 8245 0300
Fax:

Received: Jul 7, 2014 3:20 PM
Due: Jul 8, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																	
Melbourne Laboratory - NATA Site # 1254 & 14271								X									
Sydney Laboratory - NATA Site # 18217						X			X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					X												
Internal Laboratory							X										
105	1.5-1.6	Jul 07, 2014		Soil	S14-JI06906				X								
105	2.0-2.1	Jul 07, 2014		Soil	S14-JI06907				X								
106	0-0.1	Jul 07, 2014		Soil	S14-JI06908		X	X			X	X	X		X	X	X
106	0.2-0.3	Jul 07, 2014		Soil	S14-JI06909				X								
106	0.5-0.6	Jul 07, 2014		Soil	S14-JI06910				X								
107	0-0.1	Jul 07, 2014		Soil	S14-JI06911		X	X			X	X	X		X	X	X
107	0.2-0.3	Jul 07, 2014		Soil	S14-JI06912				X								
107	0.5-0.6	Jul 07, 2014		Soil	S14-JI06913				X								
108	0-0.1	Jul 07, 2014		Soil	S14-JI06914		X	X			X	X	X		X	X	X
108	0.2-0.3	Jul 07, 2014		Soil	S14-JI06915				X								
108	0.5-0.6	Jul 07, 2014		Soil	S14-JI06916	X	X		X	X							



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Sample Detail						% Clay	% Moisture	Asbestos (% weight as per W/A Guidelines)	Cation Exchange Capacity	HOLD	pH (1:5 Aqueous extract)	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	Metals M8 filtered	BTEX	Polychlorinated Biphenyls (PCB)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																		
Melbourne Laboratory - NATA Site # 1254 & 14271									X									
Sydney Laboratory - NATA Site # 18217							X			X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 20794						X												
Internal Laboratory								X										
109	D-0.1	Jul 07, 2014		Soil	S14-JI06917					X								
109	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06918		X	X				X	X	X		X	X	X
110	D-0.1	Jul 07, 2014		Soil	S14-JI06919					X								
110	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06920		X	X				X	X	X		X	X	X
111	D-0.1	Jul 07, 2014		Soil	S14-JI06921		X	X				X	X	X		X	X	X
111	D-0.2-0.3	Jul 07, 2014		Soil	S14-JI06922					X								
112	D-0.1	Jul 07, 2014		Soil	S14-JI06923		X	X				X	X	X		X	X	X
101		Jul 07, 2014		Soil	S14-JI06924		X	X				X	X	X		X	X	X
102		Jul 07, 2014		Soil	S14-JI06925					X								
103		Jul 07, 2014		Soil	S14-JI06926					X								
NSA	TE	Jul 07, 2014		Water	S14-JI06927							X	X		X	X	X	X

Eurofins | mgt Client Manager: Jean Heng

Sample Detail					Total Recoverable Hydrocarbons	Polychlorinated Biphenyls (PCB)	BTEX	Metals M8 filtered	Metals M8	Organochlorine Pesticides	Polycyclic Aromatic Hydrocarbons	pH (1:5 Aqueous extract)	HOLD	Cation Exchange Capacity	Asbestos (% weight as per W/A Guidelines)	% Moisture	% Clay
Laboratory where analysis is conducted																	
Bourne Laboratory - NATA Site # 1254 & 14271													X				
Ridley Laboratory - NATA Site # 18217							X	X	X	X	X	X	X		X		
Sydney Laboratory - NATA Site # 20794																X	
Internal Laboratory														X			
RIP SPIKE	Jul 07, 2014		Water	S14-JI06928													
RIP BLANK	Jul 07, 2014		Water	S14-JI06929			X										
105 0.5-0.6	Jul 07, 2014		Soil	S14-JI07023								X					

Eurofins | mgt 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. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. 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 Acknowledgment.

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

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

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. 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.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
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 20-130%.

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, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene 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 Arochlor 1260 in Matrix Spikes and LCS's.
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 RPD's 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/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	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	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							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4,4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4,4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4,4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.01			0.01	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Total PCB	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	95			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	92			70-130	Pass	
Toluene	%	88			70-130	Pass	
Ethylbenzene	%	99			70-130	Pass	
m&p-Xylenes	%	101			70-130	Pass	
o-Xylene	%	101			70-130	Pass	
Xylenes - Total	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	102			70-130	Pass	
TRH C6-C10	%	88			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	122			70-130	Pass	
Acenaphthylene	%	125			70-130	Pass	
Anthracene	%	111			70-130	Pass	
Benz(a)anthracene	%	115			70-130	Pass	
Benzo(a)pyrene	%	109			70-130	Pass	
Benzo(b&j)fluoranthene	%	115			70-130	Pass	
Benzo(g,h,i)perylene	%	111			70-130	Pass	
Benzo(k)fluoranthene	%	120			70-130	Pass	
Chrysene	%	113			70-130	Pass	
Dibenz(a,h)anthracene	%	105			70-130	Pass	
Fluoranthene	%	112			70-130	Pass	
Fluorene	%	122			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	107			70-130	Pass	
Naphthalene	%	129			70-130	Pass	
Phenanthrene	%	107			70-130	Pass	
Pyrene	%	111			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	100			70-130	Pass	
4,4'-DDD	%	100			70-130	Pass	
4,4'-DDE	%	100			70-130	Pass	
4,4'-DDT	%	75			70-130	Pass	
a-BHC	%	100			70-130	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin				%	100			70-130	Pass	
b-BHC				%	100			70-130	Pass	
d-BHC				%	75			70-130	Pass	
Dieldrin				%	100			70-130	Pass	
Endosulfan I				%	75			70-130	Pass	
Endosulfan II				%	100			70-130	Pass	
Endosulfan sulphate				%	100			70-130	Pass	
Endrin				%	100			70-130	Pass	
Endrin aldehyde				%	75			70-130	Pass	
Endrin ketone				%	100			70-130	Pass	
g-BHC (Lindane)				%	75			70-130	Pass	
Heptachlor				%	75			70-130	Pass	
Heptachlor epoxide				%	100			70-130	Pass	
Hexachlorobenzene				%	100			70-130	Pass	
Methoxychlor				%	75			70-130	Pass	
LCS - % Recovery										
Polychlorinated Biphenyls (PCB)										
Aroclor-1260				%	75			70-130	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	S14-JI02741	NCP		%	91			70-130	Pass	
Spike - % Recovery										
BTEX					Result 1					
Benzene	S14-JI02741	NCP		%	85			70-130	Pass	
Toluene	S14-JI02741	NCP		%	83			70-130	Pass	
Ethylbenzene	S14-JI02741	NCP		%	94			70-130	Pass	
m&p-Xylenes	S14-JI02741	NCP		%	95			70-130	Pass	
o-Xylene	S14-JI02741	NCP		%	95			70-130	Pass	
Xylenes - Total	S14-JI02741	NCP		%	95			70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					Result 1					
Naphthalene	S14-JI02741	NCP		%	96			70-130	Pass	
TRH C6-C10	S14-JI02741	NCP		%	85			70-130	Pass	
Spike - % Recovery										
Polycyclic Aromatic Hydrocarbons					Result 1					
Acenaphthene	S14-JI02713	NCP		%	113			70-130	Pass	
Acenaphthylene	S14-JI02713	NCP		%	117			70-130	Pass	
Anthracene	S14-JI02713	NCP		%	104			70-130	Pass	
Benz(a)anthracene	S14-JI02713	NCP		%	101			70-130	Pass	
Benzo(a)pyrene	S14-JI02713	NCP		%	98			70-130	Pass	
Benzo(b&j)fluoranthene	S14-JI02713	NCP		%	99			70-130	Pass	
Benzo(g,h,i)perylene	S14-JI02713	NCP		%	108			70-130	Pass	
Benzo(k)fluoranthene	S14-JI02713	NCP		%	115			70-130	Pass	
Chrysene	S14-JI02713	NCP		%	111			70-130	Pass	
Dibenz(a,h)anthracene	S14-JI02713	NCP		%	96			70-130	Pass	
Fluoranthene	S14-JI02713	NCP		%	107			70-130	Pass	
Fluorene	S14-JI02713	NCP		%	112			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S14-JI02713	NCP		%	99			70-130	Pass	
Naphthalene	S14-JI02713	NCP		%	119			70-130	Pass	
Phenanthrene	S14-JI02713	NCP		%	101			70-130	Pass	
Pyrene	S14-JI02713	NCP		%	107			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 - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S14-JI04348	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S14-JI04348	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g,h,i)perylene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a,h)anthracene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S14-JI01372	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S14-JI01372	NCP	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
Organic samples had Teflon liners	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

Jean Heng	Client Services
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)



Dr. Bob Symons

Laboratory 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 shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

00032

CHAIN OF CUSTODY



424255

[illegible]

Sample Receipt Advice

Company name: **JBS & G (NSW & WA) Pty Ltd**

Contact name: Michelle Battam

Client job number: SDPA 43567

COC number: 00032

Turn around time: 1 Day

Date/Time received: Jul 10, 2014 3:30 PM

Eurofins | mgt reference: **424755**

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 : 2.5 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.
- ☒ Organic samples had Teflon liners.
- ☒ 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:

Jean Heng on Phone : (+61) (2) 9900 8400 or by e.mail: JeanHeng@eurofins.com.au

Results will be delivered electronically via e.mail to Michelle Battam - mbattam@jbsgroup.com.au.

Eurofins | mgt Sample Receipt

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
Sydney
NSW 2000
Client Job No.: SDPA 43567

Order No.:
Report #: 424755
Phone: 02 8245 0300
Fax:

Received: Jul 10, 2014 3:30 PM
Due: Jul 11, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail

Sample Detail					Ammonia (as N)	Semivolatile Organics	Metals M8 filtered	BTEX	Total Recoverable Hydrocarbons	Volatile Organics
Laboratory where analysis is conducted										
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
Internal Laboratory										
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID						
C01A	Jul 10, 2014		Water	S14-JI09781	X	X	X		X	X
RIP SPIKE	Jul 10, 2014		Water	S14-JI09782				X		

Certificate of Analysis

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000



NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Michelle Battam**

Report **424755-W**
Client Reference SDPA 43567
Received Date Jul 10, 2014

Client Sample ID			QC01A	TRIP SPIKE
Sample Matrix			Water	Water
Eurofins mgt Sample No.			S14-JI09781	S14-JI09782
Date Sampled			Jul 10, 2014	Jul 10, 2014
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	0.02	mg/L	< 0.02	-
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	-	94%
Toluene	0.001	mg/L	-	89%
Ethylbenzene	0.001	mg/L	-	93%
m&p-Xylenes	0.002	mg/L	-	94%
o-Xylene	0.001	mg/L	-	95%
Xylenes - Total	0.003	mg/L	-	94%
4-Bromofluorobenzene (surr.)	1	%	-	101
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.02	mg/L	< 0.02	-
TRH C6-C10	0.02	mg/L	< 0.02	-
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	-
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	-
Volatile Organics				
1.1-Dichloroethane	0.001	mg/L	< 0.001	-
1.1-Dichloroethene	0.001	mg/L	< 0.001	-
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	-
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	-
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	-
1.1.2.2-Tetrachloroethane	0.005	mg/L	< 0.005	-
1.2-Dibromoethane	0.001	mg/L	< 0.001	-
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	-
1.2-Dichloroethane	0.001	mg/L	< 0.001	-
1.2-Dichloropropane	0.001	mg/L	< 0.001	-
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	-
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	-
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	-
1.3-Dichloropropane	0.001	mg/L	< 0.001	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled			QC01A Water S14-JI09781 Jul 10, 2014	TRIP SPIKE Water S14-JI09782 Jul 10, 2014
Test/Reference	LOR	Unit		
Volatile Organics				
1,3,5-Trimethylbenzene	0.001	mg/L	< 0.001	-
1,4-Dichlorobenzene	0.001	mg/L	< 0.001	-
2-Butanone (MEK)	0.001	mg/L	< 0.001	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	-
Benzene	0.001	mg/L	< 0.001	-
Bromobenzene	0.001	mg/L	< 0.001	-
Bromochloromethane	0.001	mg/L	< 0.001	-
Bromodichloromethane	0.001	mg/L	< 0.001	-
Bromoform	0.001	mg/L	< 0.001	-
Bromomethane	0.001	mg/L	< 0.001	-
Carbon disulfide	0.001	mg/L	< 0.001	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-
Chlorobenzene	0.001	mg/L	< 0.001	-
Chloroethane	0.001	mg/L	< 0.001	-
Chloroform	0.005	mg/L	< 0.005	-
Chloromethane	0.001	mg/L	< 0.001	-
cis-1,2-Dichloroethene	0.001	mg/L	< 0.001	-
cis-1,3-Dichloropropene	0.001	mg/L	< 0.001	-
Dibromochloromethane	0.001	mg/L	< 0.001	-
Dibromomethane	0.005	mg/L	< 0.005	-
Dichlorodifluoromethane	0.001	mg/L	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	-
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-
m&p-Xylenes	0.002	mg/L	< 0.002	-
Methylene Chloride	0.001	mg/L	< 0.001	-
o-Xylene	0.001	mg/L	< 0.001	-
Styrene	0.001	mg/L	< 0.001	-
Tetrachloroethene	0.001	mg/L	< 0.001	-
Toluene	0.001	mg/L	< 0.001	-
trans-1,2-Dichloroethene	0.001	mg/L	< 0.001	-
trans-1,3-Dichloropropene	0.001	mg/L	< 0.001	-
Trichloroethene	0.001	mg/L	< 0.001	-
Trichlorofluoromethane	0.001	mg/L	< 0.001	-
Vinyl chloride	0.001	mg/L	< 0.001	-
Xylenes - Total	0.003	mg/L	< 0.003	-
Fluorobenzene (surr.)	1	%	96	-
4-Bromofluorobenzene (surr.)	1	%	96	-
Semivolatile Organics				
1-Naphthylamine	0.002	mg/L	< 0.002	-
1,2-Dichlorobenzene	0.002	mg/L	< 0.002	-
1,2,4-Trichlorobenzene	0.002	mg/L	< 0.002	-
1,2,4,5-Tetrachlorobenzene	0.002	mg/L	< 0.002	-
1,3-Dichlorobenzene	0.002	mg/L	< 0.002	-
1,4-Dichlorobenzene	0.002	mg/L	< 0.002	-
2-Chloronaphthalene	0.002	mg/L	< 0.002	-
2-Chlorophenol	0.002	mg/L	< 0.002	-
2-Methylnaphthalene	0.002	mg/L	< 0.002	-
2-Methylphenol (o-Cresol)	0.002	mg/L	< 0.002	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	QC01A Water S14-JI09781 Jul 10, 2014	TRIP SPIKE Water S14-JI09782 Jul 10, 2014
Semivolatile Organics				
2-Naphthylamine	0.002	mg/L	< 0.002	-
2-Nitroaniline	0.004	mg/L	< 0.004	-
2-Nitrophenol	0.002	mg/L	< 0.002	-
2,3,4,6-Tetrachlorophenol	0.002	mg/L	< 0.002	-
2,4-Dichlorophenol	0.002	mg/L	< 0.002	-
2,4-Dimethylphenol	0.002	mg/L	< 0.002	-
2,4-Dinitrotoluene	0.004	mg/L	< 0.004	-
2,4,5-Trichlorophenol	0.002	mg/L	< 0.002	-
2,4,6-Trichlorophenol	0.002	mg/L	< 0.002	-
2,6-Dichlorophenol	0.002	mg/L	< 0.002	-
2,6-Dinitrotoluene	0.004	mg/L	< 0.004	-
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	< 0.004	-
3-Methylcholanthrene	0.002	mg/L	< 0.002	-
4-Aminobiphenyl	0.002	mg/L	< 0.002	-
4-Bromophenyl phenyl ether	0.002	mg/L	< 0.002	-
4-Chloro-3-methylphenol	0.002	mg/L	< 0.004	-
4-Chlorophenyl phenyl ether	0.002	mg/L	< 0.002	-
4-Nitrophenol	0.002	mg/L	< 0.004	-
4,4'-DDD	0.002	mg/L	< 0.002	-
4,4'-DDE	0.002	mg/L	< 0.002	-
4,4'-DDT	0.004	mg/L	< 0.004	-
7,12-Dimethylbenz(a)anthracene	0.002	mg/L	< 0.002	-
a-BHC	0.002	mg/L	< 0.002	-
Acenaphthene	0.001	mg/L	< 0.001	-
Acenaphthylene	0.001	mg/L	< 0.001	-
Acetophenone	0.002	mg/L	< 0.002	-
Aldrin	0.002	mg/L	< 0.002	-
Aniline	0.002	mg/L	< 0.002	-
Anthracene	0.001	mg/L	< 0.001	-
b-BHC	0.002	mg/L	< 0.002	-
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	-
Bis(2-chloroethoxy)methane	0.002	mg/L	< 0.002	-
Bis(2-chloroisopropyl)ether	0.002	mg/L	< 0.002	-
Bis(2-ethylhexyl)phthalate	0.02	mg/L	< 0.02	-
Butyl benzyl phthalate	0.002	mg/L	< 0.002	-
Chrysene	0.001	mg/L	< 0.001	-
d-BHC	0.002	mg/L	< 0.002	-
Di-n-butyl phthalate	0.002	mg/L	< 0.002	-
Di-n-octyl phthalate	0.002	mg/L	< 0.002	-
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	-
Dibenzofuran	0.002	mg/L	< 0.002	-
Dieldrin	0.002	mg/L	< 0.002	-
Diethyl phthalate	0.002	mg/L	< 0.002	-
Dimethyl phthalate	0.002	mg/L	< 0.002	-
Dimethylaminoazobenzene	0.002	mg/L	< 0.002	-

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	QC01A Water S14-JI09781 Jul 10, 2014	TRIP SPIKE Water S14-JI09782 Jul 10, 2014
Semivolatile Organics				
Diphenylamine	0.002	mg/L	< 0.002	-
Endosulfan I	0.002	mg/L	< 0.002	-
Endosulfan II	0.002	mg/L	< 0.002	-
Endosulfan sulphate	0.002	mg/L	< 0.002	-
Endrin	0.002	mg/L	< 0.002	-
Endrin aldehyde	0.002	mg/L	< 0.002	-
Endrin ketone	0.002	mg/L	< 0.002	-
Fluoranthene	0.001	mg/L	< 0.001	-
Fluorene	0.001	mg/L	< 0.001	-
g-BHC (Lindane)	0.002	mg/L	< 0.002	-
Heptachlor	0.002	mg/L	< 0.002	-
Heptachlor epoxide	0.002	mg/L	< 0.002	-
Hexachlorobenzene	0.002	mg/L	< 0.002	-
Hexachlorobutadiene	0.002	mg/L	< 0.002	-
Hexachlorocyclopentadiene	0.004	mg/L	< 0.004	-
Hexachloroethane	0.002	mg/L	< 0.002	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-
Methoxychlor	0.001	mg/L	< 0.001	-
N-Nitrosodibutylamine	0.002	mg/L	< 0.002	-
N-Nitrosodipropylamine	0.002	mg/L	< 0.002	-
N-Nitrosopiperidine	0.002	mg/L	< 0.002	-
Naphthalene	0.001	mg/L	< 0.001	-
Nitrobenzene	0.002	mg/L	< 0.002	-
Pentachlorobenzene	0.002	mg/L	< 0.002	-
Pentachloronitrobenzene	0.002	mg/L	< 0.002	-
Pentachlorophenol	0.01	mg/L	< 0.01	-
Phenanthrene	0.001	mg/L	< 0.001	-
Phenol	0.002	mg/L	< 0.002	-
Pyrene	0.001	mg/L	< 0.001	-
Phenol-d6 (surr.)	1	%	90	-
Nitrobenzene-d5 (surr.)	1	%	91	-
2-Fluorobiphenyl (surr.)	1	%	87	-
Ammonia (as N)	0.01	mg/L	0.29	-
Heavy Metals				
Arsenic (filtered)	0.001	mg/L	0.003	-
Cadmium (filtered)	0.0001	mg/L	0.0001	-
Chromium (filtered)	0.001	mg/L	< 0.001	-
Copper (filtered)	0.001	mg/L	< 0.001	-
Lead (filtered)	0.001	mg/L	< 0.001	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-
Nickel (filtered)	0.001	mg/L	0.006	-
Zinc (filtered)	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 - 1999 NEPM Fractions	Sydney	Jul 11, 2014	7 Day
- Method: E004 Petroleum Hydrocarbons (TPH)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 11, 2014	7 Day
- Method: LM-LTM-ORG2010			
BTEX	Sydney	Jul 11, 2014	14 Day
- Method: E029/E016 BTEX			
Volatile Organics	Sydney	Jul 11, 2014	7 Day
- Method: E016 Volatile Organic Compounds (VOC)			
Semivolatile Organics	Sydney	Jul 10, 2014	7 Day
- Method: USEPA 8270 Semivolatile Organics			
Ammonia (as N)	Sydney	Jul 10, 2014	28 Day
- Method: E036/E050 Ammonia as N			
Metals M8 filtered	Sydney	Jul 10, 2014	28 Day
- Method: E020/E030 Filtered Metals in Water & E026 Mercury			

Company Name: JBS & G (NSW & WA) Pty Ltd
Address: Level 1, 50 Margaret St
 Sydney
 NSW 2000
Client Job No.: SDPA 43567

Order No.:
Report #: 424755
Phone: 02 8245 0300
Fax:

Received: Jul 10, 2014 3:30 PM
Due: Jul 11, 2014
Priority: 1 Day
Contact Name: Michelle Battam

Eurofins | mgt Client Manager: Jean Heng

Sample Detail

Laboratory where analysis is conducted					Ammonia (as N)	Semivolatile Organics	Metals M8 filtered	BTEX	Total Recoverable Hydrocarbons	Volatile Organics
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID						
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
Internal Laboratory										
C01A	Jul 10, 2014		Water	S14-JI09781	X	X	X		X	X
RIP SPIKE	Jul 10, 2014		Water	S14-JI09782				X		

Eurofins | mgt 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. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis. 7. 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 Acknowledgment.

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

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

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

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

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. 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.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
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 20-130%.

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, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene 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 Arochlor 1260 in Matrix Spikes and LCS's.
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 RPD's 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/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							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	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							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.005			0.005	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.001			0.001	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.001			0.001	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.001			0.001	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.005			0.005	Pass	
Dichlorodifluoromethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.001			0.001	Pass	
Vinyl chloride	mg/L	< 0.001			0.001	Pass	
Method Blank							
Semivolatile Organics							
1-Naphthylamine	mg/L	< 0.002			0.002	Pass	
1.2-Dichlorobenzene	mg/L	< 0.002			0.002	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.002			0.002	Pass	
1.2.4.5-Tetrachlorobenzene	mg/L	< 0.002			0.002	Pass	
1.3-Dichlorobenzene	mg/L	< 0.002			0.002	Pass	
1.4-Dichlorobenzene	mg/L	< 0.002			0.002	Pass	
2-Chloronaphthalene	mg/L	< 0.002			0.002	Pass	
2-Chlorophenol	mg/L	< 0.002			0.002	Pass	
2-Methylnaphthalene	mg/L	< 0.002			0.002	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.002			0.002	Pass	
2-Naphthylamine	mg/L	< 0.002			0.002	Pass	
2-Nitroaniline	mg/L	< 0.004			0.004	Pass	
2-Nitrophenol	mg/L	< 0.002			0.002	Pass	
2.3.4.6-Tetrachlorophenol	mg/L	< 0.002			0.002	Pass	
2.4-Dichlorophenol	mg/L	< 0.002			0.002	Pass	
2.4-Dimethylphenol	mg/L	< 0.002			0.002	Pass	
2.4-Dinitrotoluene	mg/L	< 0.004			0.004	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.002			0.002	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.002			0.002	Pass	
2.6-Dichlorophenol	mg/L	< 0.002			0.002	Pass	
2.6-Dinitrotoluene	mg/L	< 0.004			0.004	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.004			0.004	Pass	
3-Methylcholanthrene	mg/L	< 0.002			0.002	Pass	
4-Aminobiphenyl	mg/L	< 0.002			0.002	Pass	
4-Bromophenyl phenyl ether	mg/L	< 0.002			0.002	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.002			0.002	Pass	
4-Chlorophenyl phenyl ether	mg/L	< 0.002			0.002	Pass	
4-Nitrophenol	mg/L	< 0.002			0.002	Pass	
4.4'-DDD	mg/L	< 0.002			0.002	Pass	
4.4'-DDE	mg/L	< 0.002			0.002	Pass	
4.4'-DDT	mg/L	< 0.004			0.004	Pass	
7.12-Dimethylbenz(a)anthracene	mg/L	< 0.002			0.002	Pass	
a-BHC	mg/L	< 0.002			0.002	Pass	
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Acetophenone	mg/L	< 0.002			0.002	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	mg/L	< 0.002			0.002	Pass	
Aniline	mg/L	< 0.002			0.002	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
b-BHC	mg/L	< 0.002			0.002	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	
Bis(2-chloroethoxy)methane	mg/L	< 0.002			0.002	Pass	
Bis(2-chloroisopropyl)ether	mg/L	< 0.002			0.002	Pass	
Bis(2-ethylhexyl)phthalate	mg/L	< 0.02			0.02	Pass	
Butyl benzyl phthalate	mg/L	< 0.002			0.002	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
d-BHC	mg/L	< 0.002			0.002	Pass	
Di-n-butyl phthalate	mg/L	< 0.002			0.002	Pass	
Di-n-octyl phthalate	mg/L	< 0.002			0.002	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Dibenzofuran	mg/L	< 0.002			0.002	Pass	
Dieldrin	mg/L	< 0.002			0.002	Pass	
Diethyl phthalate	mg/L	< 0.002			0.002	Pass	
Dimethyl phthalate	mg/L	< 0.002			0.002	Pass	
Dimethylaminoazobenzene	mg/L	< 0.002			0.002	Pass	
Diphenylamine	mg/L	< 0.002			0.002	Pass	
Endosulfan I	mg/L	< 0.002			0.002	Pass	
Endosulfan II	mg/L	< 0.002			0.002	Pass	
Endosulfan sulphate	mg/L	< 0.002			0.002	Pass	
Endrin	mg/L	< 0.002			0.002	Pass	
Endrin aldehyde	mg/L	< 0.002			0.002	Pass	
Endrin ketone	mg/L	< 0.002			0.002	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
g-BHC (Lindane)	mg/L	< 0.002			0.002	Pass	
Heptachlor	mg/L	< 0.002			0.002	Pass	
Heptachlor epoxide	mg/L	< 0.002			0.002	Pass	
Hexachlorobenzene	mg/L	< 0.002			0.002	Pass	
Hexachlorobutadiene	mg/L	< 0.002			0.002	Pass	
Hexachlorocyclopentadiene	mg/L	< 0.004			0.004	Pass	
Hexachloroethane	mg/L	< 0.002			0.002	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Methoxychlor	mg/L	< 0.001			0.001	Pass	
N-Nitrosodibutylamine	mg/L	< 0.002			0.002	Pass	
N-Nitrosodipropylamine	mg/L	< 0.002			0.002	Pass	
N-Nitrosopiperidine	mg/L	< 0.002			0.002	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Nitrobenzene	mg/L	< 0.002			0.002	Pass	
Pentachlorobenzene	mg/L	< 0.002			0.002	Pass	
Pentachloronitrobenzene	mg/L	< 0.002			0.002	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Phenol	mg/L	< 0.002			0.002	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0001			0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	93			70-130	Pass	
TRH C10-C14	%	92			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	103			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	108			70-130	Pass	
o-Xylene	%	108			70-130	Pass	
Xylenes - Total	%	95			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	116			70-130	Pass	
TRH C6-C10	%	87			70-130	Pass	
TRH >C10-C16	%	105			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethane	%	106			75-125	Pass	
1.1-Dichloroethene	%	108			70-130	Pass	
1.1.1-Trichloroethane	%	108			70-130	Pass	
1.1.1.2-Tetrachloroethane	%	103			70-130	Pass	
1.1.2-Trichloroethane	%	112			70-130	Pass	
1.1.2.2-Tetrachloroethane	%	103			70-130	Pass	
1.2-Dibromoethane	%	117			70-130	Pass	
1.2-Dichlorobenzene	%	103			70-130	Pass	
1.2-Dichloroethane	%	115			70-130	Pass	
1.2-Dichloropropane	%	106			70-130	Pass	
1.2.3-Trichloropropane	%	119			70-130	Pass	
1.2.4-Trimethylbenzene	%	99			70-130	Pass	
1.3-Dichlorobenzene	%	101			70-130	Pass	
1.3-Dichloropropane	%	112			70-130	Pass	
1.3.5-Trimethylbenzene	%	99			70-130	Pass	
1.4-Dichlorobenzene	%	100			70-130	Pass	
2-Butanone (MEK)	%	116			70-130	Pass	
4-Chlorotoluene	%	103			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	112			70-130	Pass	
Bromobenzene	%	104			70-130	Pass	
Bromochloromethane	%	81			70-130	Pass	
Bromodichloromethane	%	106			70-130	Pass	
Bromoform	%	117			70-130	Pass	
Bromomethane	%	96			70-130	Pass	
Carbon disulfide	%	97			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Carbon Tetrachloride			%	102			70-130	Pass	
Chlorobenzene			%	101			70-130	Pass	
Chloroethane			%	105			70-130	Pass	
Chloroform			%	98			70-130	Pass	
Chloromethane			%	103			70-130	Pass	
cis-1.2-Dichloroethene			%	87			70-130	Pass	
cis-1.3-Dichloropropene			%	100			70-130	Pass	
Dibromochloromethane			%	105			70-130	Pass	
Dibromomethane			%	114			70-130	Pass	
Dichlorodifluoromethane			%	115			70-130	Pass	
Isopropyl benzene (Cumene)			%	107			70-130	Pass	
Methylene Chloride			%	104			70-130	Pass	
Styrene			%	98			70-130	Pass	
Tetrachloroethene			%	103			70-130	Pass	
trans-1.2-Dichloroethene			%	105			70-130	Pass	
trans-1.3-Dichloropropene			%	100			70-130	Pass	
Trichloroethene			%	104			70-130	Pass	
Trichlorofluoromethane			%	110			70-130	Pass	
Vinyl chloride			%	106			70-130	Pass	
LCS - % Recovery									
Semivolatile Organics									
1.2.4-Trichlorobenzene			%	75			70-130	Pass	
1.4-Dichlorobenzene			%	75			70-130	Pass	
2-Chlorophenol			%	75			30-130	Pass	
2.4-Dinitrotoluene			%	75			70-130	Pass	
Acenaphthene			%	75			70-130	Pass	
N-Nitrosodipropylamine			%	75			70-130	Pass	
Phenol			%	38			30-130	Pass	
Pyrene			%	75			70-130	Pass	
LCS - % Recovery									
Ammonia (as N)			%	84			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic (filtered)			%	112			70-130	Pass	
Cadmium (filtered)			%	115			70-130	Pass	
Chromium (filtered)			%	111			70-130	Pass	
Copper (filtered)			%	114			70-130	Pass	
Lead (filtered)			%	113			70-130	Pass	
Mercury (filtered)			%	111			70-130	Pass	
Nickel (filtered)			%	115			70-130	Pass	
Zinc (filtered)			%	115			70-130	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	S14-JI04465	NCP	%	83			70-130	Pass	
TRH C10-C14	S14-JI02751	NCP	%	104			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Xylenes - Total	S14-JI04465	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH C6-C10	S14-JI04465	NCP	%	75			70-130	Pass	
TRH >C10-C16	S14-JI02751	NCP	%	117			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
				Result 1					
Ammonia (as N)	S14-JI09781	CP	%	82			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S14-JI09781	CP	%	121			70-130	Pass	
Cadmium (filtered)	S14-JI09781	CP	%	113			70-130	Pass	
Chromium (filtered)	S14-JI09781	CP	%	110			70-130	Pass	
Copper (filtered)	S14-JI09781	CP	%	101			70-130	Pass	
Lead (filtered)	S14-JI09781	CP	%	100			70-130	Pass	
Nickel (filtered)	S14-JI09781	CP	%	104			70-130	Pass	
Zinc (filtered)	S14-JI09781	CP	%	107			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S14-JI04465	NCP	%	78			70-130	Pass	
Toluene	S14-JI04465	NCP	%	72			70-130	Pass	
Ethylbenzene	S14-JI04465	NCP	%	84			70-130	Pass	
m&p-Xylenes	S14-JI04465	NCP	%	87			70-130	Pass	
o-Xylene	S14-JI04465	NCP	%	87			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 C6-C9	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	S14-JI02752	NCP	mg/L	6.3	6.3	1.0	30%	Pass	
TRH C15-C28	S14-JI02752	NCP	mg/L	0.40	0.30	39	30%	Fail	Q15
TRH C29-C36	S14-JI02752	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Xylenes - Total	S14-JI04348	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C10	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S14-JI04348	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH >C10-C16	S14-JI02752	NCP	mg/L	3.1	2.9	7.0	30%	Pass	
TRH >C16-C34	S14-JI02752	NCP	mg/L	0.20	0.10	40	30%	Fail	Q15
TRH >C34-C40	S14-JI02752	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S14-JI09781	CP	mg/L	0.29	0.28	3.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S14-JI07991	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S14-JI07991	NCP	mg/L	0.00010	0.00010	11	30%	Pass	
Chromium (filtered)	S14-JI07991	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S14-JI07991	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	S14-JI07991	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S14-JI07991	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S14-JI07991	NCP	mg/L	0.0075	0.0076	2.0	30%	Pass	
Zinc (filtered)	S14-JI07991	NCP	mg/L	0.027	0.027	2.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S14-JI04348	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S14-JI04348	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S14-JI04348	NCP	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
Organic samples had Teflon liners	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
Q15	The RPD reported passes Eurofins mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

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Stacey Jenkins	Senior Analyst-Organic (VIC)



Dr. Bob Symons

Laboratory 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

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SAMPLE RECEIPT ADVICE

Client:

JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney NSW 2000

ph: 02 8245 0300

Fax: 02 8245 0399

Attention: Michelle Battam

Sample log in details:

Your reference:	43567, SOPA
Envirolab Reference:	112910
Date received:	10/07/2014
Date results expected to be reported:	11/07/14

Samples received in appropriate condition for analysis:	YES
No. of samples provided	5 Waters
Turnaround time requested:	24hr
Temperature on receipt (°C)	12.1
Cooling Method:	Ice
Sampling Date Provided:	YES

Comments:

If there is sufficient sample after testing, samples will be held for the following time frames from date of receipt of samples:

Water samples - 1 month

Soil and other solid samples - 2 months

Samples collected in canisters - 1 week. Canisters will then be cleaned.

All other samples are not retained after analysis

If you require samples to be retained for longer periods then retention fees will apply as per our pricelist.

Contact details:

Please direct any queries to Aileen Hie or Jacinta Hurst

ph: 02 9910 6200 fax: 02 9910 6201

email: ahie@envirolabservices.com.au or jhurst@envirolabservices.com.au

Appendix I - QA Checker

ESDAT QA Checker

Project:43567

Filter: ALL

Overview Summary

[Count of Samples](#)

[Summary By Compound](#)

[Count of Results](#)

Holding Times

Holding Time Errors (0)

Blanks

[Field Blanks](#)

Detects in Lab Blanks (0)

SDG's without Method Blanks (0)

Duplicates

[Field and Interlab Duplicates](#)

Lab Duplicates with high RPDs (0)

Duplicate Samples with incorrect or missing Parent Samples (0)

Samples at the same Location/Depth/Time not specified as duplicates (0)

Surrogates

[Surrogate Variation > 30% or outside lab LCL or UCL or outside lab LCL or UCL \(1\)](#)

Lab Control Samples

SDG's without a Laboratory Control Sample (0)

Laboratory Control Samples, Error > 30% (0)

Certified and Standard Reference Materials

Certified Reference Materials - Error > 30% (0)

Matrix Spikes

SDG's without a Matrix Spike (0)

Trip Spikes with invalid Control Sample (0)

[Less than 1 matrix spike in 20 samples, or less than 1 matrix duplicate in 20 samples \(2\)](#)

Matrix Spike Recoveries less than 70% or greater than 130% or outside lab LCL or UCL (0)

Trip Spike Recoveries (70% - 130% is acceptable) (0)

Inorganic

Other

Unit Conversion Problems (0)

OriginalChemNames Requiring Validation (0)

Samples with no Results (0)

Samples associated with Wells which are not specified in the Well Table (0)

Aborted Analysis (0)

Project Name: SOPA Site 53 Due Dilligence
 Project number: 43567
 Client: Mirvac



Matrix Type	SOIL	WATER
First Sample Date	7/07/2014	7/07/2014
Last Sample Date	7/07/2014	7/07/2014
Sampling Period (days)	1	1
Number of Samples Submitted	15	2
Number of Non QA Samples Submitted	13	0
Number of Field Blanks	0	0
Number of Trip Blanks	0	1
Number of Rinsates	0	1
Number of Field Duplicates	1	0
Number of Interlab Duplicates	1	0
Number of Trip Spikes	0	1
Number of Lab Duplicates	5	2
Number of LCSs	6	4
Number of CRMs	0	0
Number of Method Blanks	6	3
Number of Storage Blanks	0	0
Number of Matrix Spikes	4	2
Number of Matrix Spike Dupes	0	0

Filter: ALL

			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 4	Num Reported	Acceptable	Recovery %	Num Reported	Acceptable	Recovery %	Num Reported	Acceptable	Range	Num Reported	Acceptable	Max RPD > EQL x 4	Num Reported	Acceptable
Asbestos	Asbestos Fibres		0	Other	1	1	Y		0			0			0	N		0			0			0			0	N
BTEX	Benzene	0.1 mg/kg	12	VOC	0	0 to 2	Y	95 to 95	1	Y	ND	1	Y		1	Y		0			0			0			1	Y
	Ethylbenzene	0.1 mg/kg	12	VOC	0	0 to 2	Y	100 to 100	1	Y	ND	1	Y		1	Y		0			0			0			1	Y
	Toluene	0.1 mg/kg	12	VOC	0	0 to 2	Y	100 to 100	1	Y	ND	1	Y		1	Y		0			0			0			1	Y
	Xylene (m & p)	0.2 mg/kg	12	VOC	0	0 to 2	Y	99 to 99	1	Y	ND	1	Y		1	Y		0			0			0			1	Y
	Xylene (o)	0.1 mg/kg	12	VOC	0	0 to 2	Y	100 to 100	1	Y	ND	1	Y		1	Y		0			0			0			1	Y
	Xylene (Total)	0.3 mg/kg	12	VOC	0	2	Y		0			0			0	N		0			0			0			1	Y
Chlorinated Benzenes	Hexachlorobenzene	0.05 mg/kg	12	SVOC	0	0 to 2	Y	87 to 87	1	Y	ND	2	Y		2	Y		0		97 to 97	1	Y		0			1	Y
Ionic Balance	pH 1:5 soil:water	0.1 UNITS	2	Other	1	2	Y		0			0			0	N		0			0			0			0	N
Major Cations	Cation Exchange Capacity	0.05 meq/100g	2	Other	2	2	Y		0			0			0	N		0			0			0			0	N
Metals & Metalloids	Arsenic (Total)	2 mg/kg	12	Other	0	0 to 2	Y	100 to 100	2	Y	ND	2	Y		1	Y		0		95 to 95	1	Y		0			1	Y
	Cadmium	0.4 mg/kg	12	Other	0	0 to 2	Y	99 to 100	2	Y	ND	2	Y		1	Y		0		102 to 102	1	Y		0			1	Y
	Chromium (Total)	5 mg/kg	12	Other	0	0 to 2	Y	96 to 100	2	Y	ND	2	Y	11	1	Y		0		101 to 101	1	Y		0			1	Y
	Copper	5 mg/kg	12	Other	0	0 to 2	Y	96 to 100	2	Y	ND	2	Y	0	1	Y		0			0			0			1	Y
	Lead	5 mg/kg	12	Other	0	0 to 2	Y	94 to 100	2	Y	ND	2	Y	15	1	Y		0			0			0			1	Y
	Mercury (Inorganic)	0.05 mg/kg	12	Other	0	0 to 2	Y	80 to 95	2	Y	ND	2	Y		2	Y		0		100 to 100	1	Y		0			1	Y
	Nickel	5 mg/kg	12	Other	0	0 to 2	Y	98 to 100	2	Y	ND	2	Y	22	1	Y		0		104 to 104	1	Y		0			1	Y
	Zinc	5 mg/kg	12	Other	0	0 to 2	Y	98 to 100	2	Y	ND	2	Y	5	1	Y		0			0			0		6	1	Y
Organochlorine Pesticides	Aldrin	0.05 mg/kg	12	SVOC	0	0 to 2	Y	92 to 110	2	Y	ND	2	Y		2	Y		0		92 to 92	1	Y		0			1	Y
	alpha-BHC	0.05 mg/kg	12	SVOC	0	0 to 2	Y	95 to 100	2	Y	ND	2	Y		2	Y		0		95 to 95	1	Y		0			1	Y
	alpha-Chlordane		0	SVOC	0	0	Y		0		ND	1	Y		1	Y		0			0			0			0	N
	beta-BHC	0.05 mg/kg	12	SVOC	0	0 to 2	Y	86 to 91	2	Y	ND	2	Y		2	Y		0		85 to 85	1	Y		0			1	Y
	Chlordane	0.1 mg/kg	12	SVOC	0	2	Y	91 to 91	1	Y	ND	1	Y		0	N		0		95 to 95	1	Y		0			1	Y
	DDD	0.05 mg/kg	12	SVOC	0	0 to 2	Y	99 to 120	2	Y	ND	2	Y		2	Y		0		104 to 104	1	Y		0			1	Y
	DDE	0.05 mg/kg	12	SVOC	0	0 to 2	Y	88 to 110	2	Y	ND	2	Y		2	Y		0		104 to 104	1	Y		0			1	Y
	DDT	0.05 mg/kg	12	SVOC	0	0 to 2	Y	70 to 70	1	N	ND	2	Y		2	Y		0		100 to 100	1	Y		0			1	Y
	delta-BHC	0.05 mg/kg	12	SVOC	0	0 to 2	Y	83 to 83	1	Y	ND	2	Y		2	Y		0		94 to 94	1	Y		0			1	Y
	Dieldrin	0.05 mg/kg	12	SVOC	0	0 to 2	Y	94 to 110	2	Y	ND	2	Y		2	Y		0		102 to 102	1	Y		0			1	Y
	Endosulfan alpha	0.05 mg/kg	12	SVOC	0	0 to 2	Y	86 to 86	1	Y	ND	2	Y		2	Y		0		93 to 93	1	Y		0			1	Y
	Endosulfan beta	0.05 mg/kg	12	SVOC	0	0 to 2	Y	95 to 95	1	Y	ND	2	Y		2	Y		0		102 to 102	1	Y		0			1	Y
	Endosulfan Sulphate	0.05 mg/kg	12	SVOC	0	0 to 2	Y	81 to 99	2	Y	ND	2	Y		2	Y		0		113 to 113	1	Y		0			1	Y
	Endrin	0.05 mg/kg	12	SVOC	0	0 to 2	Y	90 to 92	2	Y	ND	2	Y		2	Y		0		103 to 103	1	Y		0			1	Y
	Endrin aldehyde	0.05 mg/kg	12	SVOC	0	0 to 2	Y	82 to 82	1	Y	ND	2	Y		2	Y		0		95 to 95	1	Y		0			1	Y
	Endrin ketone	0.05 mg/kg	12	SVOC	0	2	Y	77 to 77	1	Y	ND	1	Y		1	Y		0		115 to 115	1	Y		0			1	Y
	gamma-Chlordane		0	SVOC	0	0	Y		0		ND	1	Y		1	Y		0			0			0			0	N
	Heptachlor	0.05 mg/kg	12	SVOC	0	0 to 2	Y	76 to 88	2	Y	ND	2	Y		2	Y		0		95 to 95	1	Y		0			1	Y
	Heptachlor Epoxide	0.05 mg/kg	12	SVOC	0	0 to 2	Y	91 to 99	2	Y	ND	2	Y		2	Y		0		97 to 97	1	Y		0			1	Y
	Lindane	0.05 mg/kg	12	SVOC	0	0 to 2	Y	79 to 79	1	Y	ND	2	Y		2	Y		0		92 to 92	1	Y		0			1	Y
	Methoxychlor	0.2 mg/kg	12	SVOC	0	0 to 2	Y	72 to 72	1	Y	ND	2	Y		2	Y		0		102 to 102	1	Y		0			1	Y
	Toxaphene	1 mg/kg	12	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0			0			1	Y
Organophosphorus Pesticides	Chlorpyrifos-methyl	1 %	2	SVOC	2	2	Y		0			0			0	N		0			0			0			0	N
Other	Moisture	0.1 %	13	Other	0	1 to 2	Y		0			0			0	N		0			0			0		44	1	Y
Polychlorinated Biphenyls	Aroclor 1016	0.5 mg/kg	12	SVOC	0	0 to 2	Y		0		ND	2	Y		2	Y		0			0			0			1	Y
	Aroclor 1221		0	SVOC	0	0	Y		0		ND	1	Y		1	Y		0			0			0			0	N
	Aroclor 1232	0.5 mg/kg	12	SVOC	0	0 to 2	Y		0		ND	2	Y		2	Y		0			0			0			1	Y
	Aroclor 1242	0.5 mg/kg	12	SVOC	0	0 to 2	Y		0		ND	2	Y		2	Y		0			0			0			1	Y

TRHs (NEPC 2013)	>C10 - C16 less Naphthalene (F2)	50 mg/kg	12	SVOC	0	1 to 2	Y		0			0			1	Y		0			0			1	Y		
	>C10-C16 Fraction	50 mg/kg	12	SVOC	0	1 to 2	Y	92 to 98	2	Y	ND	2	Y		2	Y		0		95 to 95	1	Y		0	Y		
	>C16-C34 Fraction	100 mg/kg	12	SVOC	0	1 to 2	Y	110 to 110	1	Y	ND	2	Y		2	Y		0			0			1	Y		
	>C34-C40 Fraction	100 mg/kg	12	SVOC	0	1 to 2	Y	96 to 96	1	Y	ND	2	Y		2	Y		0			0			1	Y		
	C6 - C10 less BTEX (F1)	20 mg/kg	12	VOC	0	0 to 2	Y		0			0			1	Y		0			0			1	Y		
	C6-C10 Fraction	20 mg/kg	12	VOC	0	0 to 2	Y	99 to 99	1	Y	ND	1	Y		1	Y		0			0			1	Y		
BTEX	Benzene		0	VOC	0	2	Y	92 to 92	1	Y	ND	1	Y		1	Y		0		0.88 to 85	2	N	ND	2	Y	0	N
	Ethylbenzene		0	VOC	0	2	Y	99 to 99	1	Y	ND	1	Y		1	Y		0		0.98 to 94	2	N	ND	2	Y	0	N
	Toluene		0	VOC	0	2	Y	88 to 88	1	Y	ND	1	Y		1	Y		0		0.88 to 83	2	N	ND	2	Y	0	N
	Xylene (m & p)		0	VOC	0	2	Y	101 to 101	1	Y	ND	1	Y		1	Y		0		1 to 95	2	N	ND	2	Y	0	N
	Xylene (o)		0	VOC	0	2	Y	101 to 101	1	Y	ND	1	Y		1	Y		0		1.01 to 95	2	N	ND	2	Y	0	N
	Xylene (Total)		0	VOC	0	2	Y	101 to 101	1	Y	ND	1	Y		1	Y		0		1 to 95	2	N	ND	2	Y	0	N
Chlorinated Benzenes	Hexachlorobenzene		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
Metals & Metalloids	Arsenic (Total)		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Cadmium		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Chromium (Total)		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Copper		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Lead		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Mercury (Inorganic)		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Nickel		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
	Zinc		0	Other	0	2	Y		0			0			0	N		0			0		ND	1	Y	0	N
Organochlorine Pesticides	Aldrin		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	alpha-BHC		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	beta-BHC		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Chlordane		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	DDD		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	DDE		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	DDT		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	delta-BHC		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Dieldrin		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Endosulfan alpha		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Endosulfan beta		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Endosulfan Sulphate		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Endrin		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Endrin aldehyde		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Endrin ketone		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Heptachlor		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Heptachlor Epoxide		0	SVOC	0	2	Y	100 to 100	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
Lindane		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N	
Methoxychlor		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N	
Toxaphene		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N	
Polychlorinated Biphenyls	Aroclor 1016		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Aroclor 1232		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Aroclor 1242		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Aroclor 1248		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Aroclor 1254		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N
	Aroclor 1260		0	SVOC	0	2	Y	75 to 75	1	Y	ND	1	Y		0	N		0			0		ND	1	Y	0	N
	PCBs (Total)		0	SVOC	0	2	Y		0		ND	1	Y		0	N		0			0		ND	1	Y	0	N
Polycyclic Aromatic Hydrocarbons	Acenaphthene		0	SVOC	0	2	Y	122 to 122	1	Y	ND	1	Y		1	Y		0		113 to 113	1	Y	ND	1	Y	0	N
	Acenaphthylene		0	SVOC	0	2	Y	125 to 125	1	Y	ND	1	Y		1	Y		0		117 to 117	1	Y	ND	1	Y	0	N
	Anthracene		0	SVOC	0	2	Y	111 to 111	1	Y	ND	1	Y		1	Y		0		104 to 104	1	Y	ND	1	Y	0	N
	Benz(a)anthracene		0	SVOC	0	2	Y	115 to 115	1	Y	ND	1	Y		1	Y		0		101 to 101	1	Y	ND	1	Y	0	N
	Benzo(a)pyrene		0	SVOC	0	2	Y	109 to 109	1	Y	ND	1	Y		1	Y		0		98 to 98	1	Y	ND	1	Y	0	N
	Benzo(b,j)fluoranthene		0	SVOC	0	2	Y	115 to 115	1	Y	ND	1	Y		1	Y		0		99 to 99	1	Y	ND	1	Y	0	N
	Benzo(g,h,i)perylene		0	SVOC	0																						

Project Name: SOPA Site 53 Due Diligence
 Project Number: 43567
 Client: Mirvac



Matrix_Type	Sample_Type	Reg	Leached	Spike_Compounds	Surrogate
SOIL	Normal	1015	0	0	60
SOIL	LAB_D	118	0	0	5
SOIL	MB	107	0	0	5
SOIL	Field_D	84	0	0	5
SOIL	Interlab_D	70	0	0	5
SOIL	LCS	70	0	0	5
SOIL	MS	0	0	44	0
SOIL	NCP	1	0	0	0
WATER	Rinsate	71	0	0	5
WATER	MB	54	0	0	0
WATER	LCS	46	0	0	0
WATER	NCP	26	0	0	0
WATER	LAB_D	26	0	0	0
WATER	MS	0	0	25	0
WATER	Trip_S	6	0	0	1
WATER	Trip_B	6	0	0	1

			SDG Field_ID Sampled_Date-Time Sample_Type	424326 RINSATE 7/07/2014 Rinsate	424326 TRIP BLANK 7/07/2014 Trip_B
Chem_Group	ChemName	Units	EQL		
BTEX	Benzene	µg/l	1	<1	<1
	Ethylbenzene	µg/l	1	<1	<1
	Toluene	µg/l	1	<1	<1
	Xylene (m & p)	µg/l	2	<2	<2
	Xylene (o)	µg/l	1	<1	<1
	Xylene (Total)	µg/l	3	<3	<3
Chlorinated Benzenes	Hexachlorobenzene	µg/l	0.1	<0.1	
Metals & Metalloids	Arsenic (Total) (Filtered)	µg/l	1	<1	
	Cadmium (Filtered)	µg/l	0.1	<0.1	
	Chromium (Total) (Filtered)	µg/l	1	<1	
	Copper (Filtered)	µg/l	1	<1	
	Lead (Filtered)	µg/l	1	<1	
	Mercury (Inorganic) (Filtered)	µg/l	0.1	<0.1	
	Nickel (Filtered)	µg/l	1	<1	
	Zinc (Filtered)	µg/l	5	<5	
Organochlorine Pesticides	Aldrin	µg/l	0.1	<0.1	
	alpha-BHC	µg/l	0.1	<0.1	
	beta-BHC	µg/l	0.1	<0.1	
	delta-BHC	µg/l	0.1	<0.1	
	Chlordane	µg/l	1	<1	
	DDD	µg/l	0.1	<0.1	
	DDE	µg/l	0.1	<0.1	
	DDT	µg/l	0.1	<0.1	
	Dieldrin	µg/l	0.1	<0.1	
	Endosulfan alpha	µg/l	0.1	<0.1	
	Endosulfan beta	µg/l	0.1	<0.1	
	Endosulfan Sulphate	µg/l	0.1	<0.1	
	Endrin	µg/l	0.1	<0.1	
	Endrin aldehyde	µg/l	0.1	<0.1	
	Endrin ketone	µg/l	0.1	<0.1	
	Heptachlor	µg/l	0.1	<0.1	
	Heptachlor Epoxide	µg/l	0.1	<0.1	
	Lindane	µg/l	0.1	<0.1	
	Methoxychlor	µg/l	0.1	<0.1	
	Toxaphene	µg/l	10	<10	
Polychlorinated Biphenyls	Aroclor 1016	µg/l	5	<5	
	Aroclor 1232	µg/l	5	<5	
	Aroclor 1242	µg/l	5	<5	
	Aroclor 1248	µg/l	5	<5	
	Aroclor 1254	µg/l	5	<5	
	Aroclor 1260	µg/l	5	<5	
	PCBs (Total)	µg/l	5	<5	
Polycyclic Aromatic Hydrocarbons	Acenaphthene	µg/l	1	<1	
	Acenaphthylene	µg/l	1	<1	
	Anthracene	µg/l	1	<1	
	Benzo(a)anthracene	µg/l	1	<1	
	Benzo(a)pyrene	µg/l	1	<1	
	Benzo(b,j)fluoranthene	µg/l	1	<1	
	Benzo(g,h,i)perylene	µg/l	1	<1	
	Benzo(k)fluoranthene	µg/l	1	<1	
	Chrysene	µg/l	1	<1	
	Dibenz(a,h)anthracene	µg/l	1	<1	
	Fluoranthene	µg/l	1	<1	
	Fluorene	µg/l	1	<1	
	Indeno(1,2,3-c,d)pyrene	µg/l	1	<1	
	Naphthalene	µg/l	1	<20	
	Phenanthrene	µg/l	1	<1	
	Pyrene	µg/l	1	<1	
	PAHs (Total)	µg/l	1	<1	
TPHs (NEPC 1999)	C6-C9 Fraction	µg/l	20	<20	
	C10-C14 Fraction	µg/l	50	<50	
	C15-C28 Fraction	µg/l	100	<100	
	C29-C36 Fraction	µg/l	100	<100	
	C10-C36 Fraction (Total)	µg/l	100	<100	
TRHs (NEPC 2013)	C6-C10 Fraction	µg/l	20	<20	
	>C10-C16 Fraction	µg/l	50	<50	
	>C16-C34 Fraction	µg/l	100	<100	
	>C34-C40 Fraction	µg/l	100	<100	
	C6 - C10 less BTEX (F1)	µg/l	20	<20	
	>C10 - C16 less Naphthalene (F2)	µg/l	50	<50	

			SDG Field_ID Date	424326 BH03 7/07/2014	424326 QC01 7/07/2014	RPD
Chem_Group	ChemName	Units	EQL			
BTEX	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0
	Ethylbenzene	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<0.1	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0
	Xylene (m & p)	mg/kg	0.2 (Primary): 2 (Interlab)	0.4	0.8	67
	Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab)	0.2	0.3	40
	Xylene (Total)	mg/kg	0.3	0.5	1.0	67
Chlorinated Benzenes	Hexachlorobenzene	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
Metals	Arsenic (Total)	mg/kg	2 (Primary): 4 (Interlab)	3.2	3.4	6
	Cadmium	mg/kg	0.4	<0.4	<0.4	0
	Chromium (Total)	mg/kg	5 (Primary): 1 (Interlab)	9.8	10.0	2
	Copper	mg/kg	5 (Primary): 1 (Interlab)	16.0	16.0	0
	Lead	mg/kg	5 (Primary): 1 (Interlab)	12.0	13.0	8
	Mercury (Inorganic)	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Nickel	mg/kg	5 (Primary): 1 (Interlab)	8.0	7.3	9
	Zinc	mg/kg	5 (Primary): 1 (Interlab)	46.0	49.0	6
Organochlorine Pesticides	Aldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	beta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	delta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Chlordane	mg/kg	0.1	<0.1	<0.1	0
	DDD	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	DDE	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	DDT	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Dieldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Endosulfan alpha	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Endosulfan beta	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Endosulfan Sulphate	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Endrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Endrin aldehyde	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Heptachlor Epoxide	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Lindane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Methoxychlor	mg/kg	0.2 (Primary): 0.1 (Interlab)	<0.2	<0.2	0
	Toxaphene	mg/kg	1	<1.0	<1.0	0
Polychlorinated Biphenyls	Aroclor 1016	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Aroclor 1232	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Aroclor 1242	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Aroclor 1248	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Aroclor 1254	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Aroclor 1260	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	PCBs (Total)	mg/kg	0.5	<0.5	<0.5	0
Polycyclic Aromatic Hydrocarbons	Acenaphthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Acenaphthylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Benz(a)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Benzo(a)pyrene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0
	Benzo(a)pyrene TEQ (lower bound)*	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)pyrene TEQ (medium bound)*	mg/kg	0.5	0.6	0.6	0
	Benzo(a)pyrene TEQ (upper bound)*	mg/kg	0.5	1.2	1.2	0
	Benzo(b,j)fluoranthene	mg/kg	0.5	<0.5	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0
	Chrysene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Fluoranthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Fluorene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0
	Phenanthrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	Pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0
	PAHs (Total)	mg/kg	0.5	<0.5	<0.5	0
TRHs (NEPC 2013)	C6-C10 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0
	>C10-C16 Fraction	mg/kg	50	<50.0	55.0	75
	>C16-C34 Fraction	mg/kg	100	<100.0	130.0	89
	>C34-C40 Fraction	mg/kg	100	<100.0	<100.0	0
	C6 - C10 less BTEX (F1)	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<20.0	0
	>C10 - C16 less Naphthalene (F2)	mg/kg	50	<50.0	55.0	75

*RPDs have only been considered where a concentration is greater than 4 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (4-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in th

			SDG Field_ID Date	424326 BH03 7/07/2014	Interlab_D QC01A 7/07/2014	RPD
Chem_Group	ChemName	Units	EQL			
BTEX	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.2	0
	Ethylbenzene	mg/kg	0.1 (Primary): 1 (Interlab)	<0.1	<1.0	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.5	0
	Xylene (m & p)	mg/kg	0.2 (Primary): 2 (Interlab)	0.4	<2.0	86
	Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab)	0.2	<1.0	86
	Xylene (Total)	mg/kg	0.3	0.5		
Chlorinated Benzenes	Hexachlorobenzene	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
Metals	Arsenic (Total)	mg/kg	2 (Primary): 4 (Interlab)	3.2	<4.0	46
	Cadmium	mg/kg	0.4	<0.4	<0.4	0
	Chromium (Total)	mg/kg	5 (Primary): 1 (Interlab)	9.8	9.0	9
	Copper	mg/kg	5 (Primary): 1 (Interlab)	16.0	16.0	0
	Lead	mg/kg	5 (Primary): 1 (Interlab)	12.0	12.0	0
	Mercury (Inorganic)	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Nickel	mg/kg	5 (Primary): 1 (Interlab)	8.0	8.0	0
	Zinc	mg/kg	5 (Primary): 1 (Interlab)	46.0	43.0	7
Organochlorine Pesticides	Aldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	beta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	delta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Chlordane	mg/kg	0.1	<0.1		
	DDD	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	DDE	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	DDT	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Dieldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Endosulfan alpha	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Endosulfan beta	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Endosulfan Sulphate	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Endrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Endrin aldehyde	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Endrin ketone	mg/kg	0.05	<0.05		
	Heptachlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Heptachlor Epoxide	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Lindane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.1	0
	Methoxychlor	mg/kg	0.2 (Primary): 0.1 (Interlab)	<0.2	<0.1	0
	Toxaphene	mg/kg	1	<1.0		
Polychlorinated Biphenyls	Aroclor 1016	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Aroclor 1232	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Aroclor 1242	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Aroclor 1248	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Aroclor 1254	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Aroclor 1260	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	PCBs (Total)	mg/kg	0.5	<0.5		
Polycyclic Aromatic Hydrocarbons	Acenaphthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Acenaphthylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Benz(a)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Benzo(a)pyrene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.05	0
	Benzo(a)pyrene TEQ (lower bound)*	mg/kg	0.5	<0.5		
	Benzo(a)pyrene TEQ (medium bound)*	mg/kg	0.5	0.6		
	Benzo(a)pyrene TEQ (upper bound)*	mg/kg	0.5	1.2		
	Benzo(b,j)fluoranthene	mg/kg	0.5	<0.5		
	Benzo(g,h,i)perylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5		
	Chrysene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Dibenz(a,h)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Fluoranthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Fluorene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.1	0
	Phenanthrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	Pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.1	0
	PAHs (Total)	mg/kg	0.5	<0.5		
TRHs (NEPC 2013)	C6-C10 Fraction	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<25.0	0
	>C10-C16 Fraction	mg/kg	50	<50.0	<50.0	0
	>C16-C34 Fraction	mg/kg	100	<100.0	200.0	120
	>C34-C40 Fraction	mg/kg	100	<100.0	<100.0	0
	C6 - C10 less BTEX (F1)	mg/kg	20 (Primary): 25 (Interlab)	<20.0	<25.0	0
	>C10 - C16 less Naphthalene (F2)	mg/kg	50	<50.0	<50.0	0

*RPDs have only been considered where a concentration is greater than 4 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (4-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x E

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row he primary laboratory

Project Name: SOPA Site 53 Due Diligence
Project Number: 43567
Client: Mirvac



SDG	Sample_Type	Dupe_Field_ID	Dupe_SampleCode	Parent_SampleCode	Problem
424326	LAB_D		NCP_JI06714_424326-DUP	NCP_JI06714_424326	No Data in Parent Sample
424326	LAB_D		NCP_JI06715_424326-DUP	NCP_JI06715_424326	No Data in Parent Sample
424326	LAB_D		NCP_JI06714_424326-DUP	NCP_JI06714_424326	No Data in Duplicate Sample
424326	LAB_D		NCP_JI06715_424326-DUP	NCP_JI06715_424326	No Data in Duplicate Sample



SDG	Sample_Type	Matrix_Type	SampleCode	Field_ID	Depth	Sampled_Date-Time	Compound	Recovery %	Unit	LCL	UCL	QA_Flag	Comments
424326	Normal	SOIL	S14-JI06921	BH11	0 - 0.1	7/07/2014	Dibutylchlorodate (surr.)	132	%	70	130		

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Document Status

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		Name	Name	Signature	Date
A	Michelle Battam	Matthew Bennett	Matthew Bennett	Client Review	16/07/2014

