Douglas Partners
Geotechnics / Environment / Groundwater

Integrated Practical Solutions

Report on
Detailed Site Investigation (Contamination)

Centre of Excellence in Agricultural Education (CoE)
Londonderry Road
Richmond, NSW

Prepared for
Woolacotts Consulting Engineers Pty Ltd

HASH-00-SD-GT-0002

Project 85644.04
April 2021

Douglas Partners
Geotechnics / Environment / Groundwater

Document History

Document details

Project No.	85644.04	Document No.	R.001
Document title	Report on Detailed Site Investigation (Contamination) Centre of Excellence in Agricultural Education (CoE)		
Site address	Londonderry Road, Richmond		
Report prepared for	Conrad Gargett Pty Ltd		
File name	85644.04.R.001.Rev0.Richmond DSI		

Document status and review

Revision	Prepared by	Reviewed by	Date issued
DftA	P Oitmaa	J M Nash	9 March 2018
0	P Oitmaa	J M Nash	22 March 2018
1	E Eden	Glyn Eade	25 March 2020
2	E Eden	Glyn Eade	26 April 2021

Distribution of copies

Revision	Electronic	Paper	Issued to
DftA	1	0	Conrad Gargett Pty Ltd
0	1	0	Conrad Gargett Pty Ltd
1	1	0	Woolacotts Consulting Engineers Pty Ltd
2	1	0	Woolacotts Consulting Engineers Pty Ltd

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

	Signature	Date
Author		26 April 2021
Reviewer		26 April 2021

Douglas Partners Pty Ltd
ABN 75 053 980 117
www.douglaspartners.com.au
96 Hermitage Road
West Ryde NSW 2114
PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666
Fax (02) 9809 4095

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Report on Detailed Site Investigation (Contamination)
Centre of Excellence in Agricultural Education (CoE)
Londonderry Road, Richmond, NSW

1. Introduction

This report presents the results of a Detailed Site Investigation (Contamination) undertaken for the proposed Centre of Excellence in Agricultural Education (CoE) off Londonderry Road, Richmond. The work was commissioned by Conrad Gargett Pty Ltd, architects, on behalf of NSW Department of Education.

The project involves the construction of a new agricultural education campus on a largely undeveloped parcel of land adjoining the Richmond campus of Western Sydney University. The Rev 1 version of this report presents the results and findings of relevance to new concrete paths and pavements ('current proposed development') to be constructed in the north eastern portion of the original investigation area – refer to the Rev 0 version of this report for the findings of relevance to the original investigation area.

The detailed contamination assessment was undertaken to:

- Assess the general levels of soil contamination resulting from past and present activities on the site;
- Assess the potential for contaminant migration by examining the groundwater quality on the site;
- Assess the suitability of the site for the proposed development; and
- Provide recommendations for remediation works, if required.

The DSI was undertaken to address the requirements of *State Environmental Planning Policy No 55 – Remediation of Land*. The overall approach for the DSI included a review of available historical information, the drilling of boreholes and excavation of test pits, the installation of groundwater monitoring wells, soil and groundwater sampling, laboratory analysis and interpretation of the results. Details of the site history, field work and laboratory testing programme are given in this report, as well as comments on the issues outlined above. The report has not specifically been prepared for review by a Site Auditor.

A Preliminary Site Investigation (PSI) was prepared for the site in November 2016 by Douglas Partners (Ref. 85644.00.R.003.Rev0). This DSI supersedes the information and advice provided in the previous PSI.

2. Site Description

The redevelopment site is located to the south-west of the main Western Sydney University buildings on part of Lot 2 DP 1051798. The site (i.e. the original investigation area) is approximately 11.37 ha in area and approximately 3 ha comprises the current proposed development area. The investigation is bounded by Western Sydney University and an aged-care facility to the north, land used largely for agricultural purposes to the east and south, and Londonderry Road to the west. The current proposed development is bounded by Vines drive to the north east, playing fields to the south and south west and University departments to the south east. The ground surface on the site slopes very gently downwards to the south-east, and surface levels vary between about RL 23.5 m and RL 22.5 m relative to Australian Height Datum (AHD).

At the time of the current investigation the site comprised paddocks with very few improvements and drainage swales are located across the wider investigation area and within the current proposed development. The surface was generally well-grassed and some trees were present on the site as well as along the southern boundary of the original investigation area.

The location of the original investigation area is shown on Drawing C1 in Appendix B.

2.1 Proposed Development

The proposed development that is the focus of this Rev 2 version of the DSI comprises new agricultural / STEM teaching facilities with general learning and administration spaces to be utilised by rural, regional, metropolitan and international school students as presented in Figure 1 below.

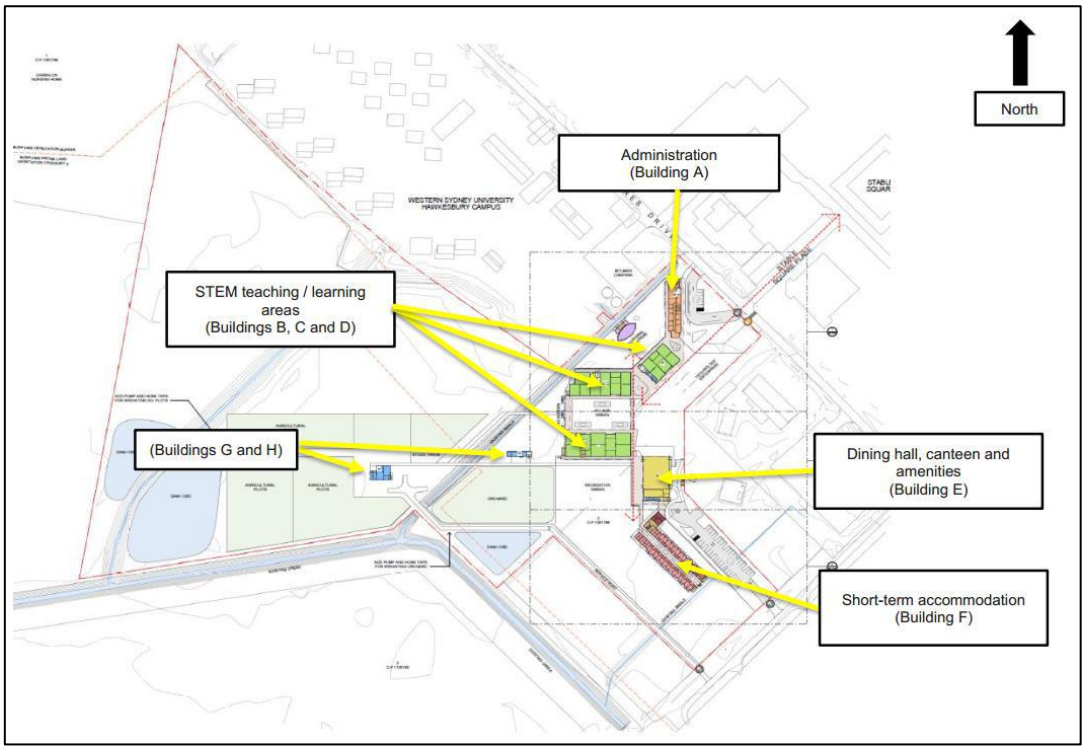

Figure 1: Proposed development

3. Regional Geology and Hydrogeology

The *Penrith 1:100 000 Geological Series Sheet* indicates that the site is underlain by the Tertiary-aged Londonderry Clay which comprises clay with patches of cemented, consolidated sand. The area to the north is shown as being underlain by the Quaternary-aged Clarendon Formation which comprises clay, clayey sand and silt. An extract from the geological map is shown in Figure 1.

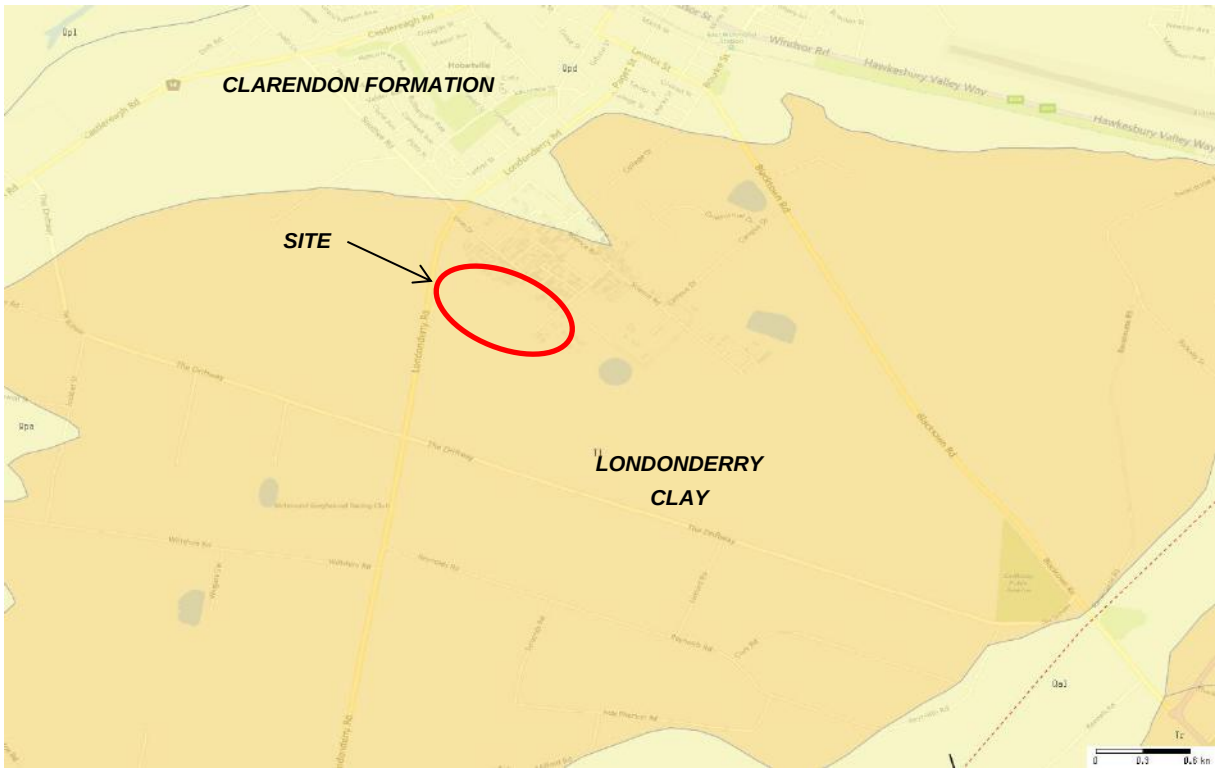

Figure 1: Extract from geological map

The topography of the site suggests that groundwater may be shallow and possibly a beneficial resource in sandy zones of the aquifer.

4. Scope of Works

The scope of the DSI was as follows:

- Review various historical documents including aerial photographs, historical title deeds, the Section 149 certificate[1], the EPA Contaminated Land register and groundwater bore licences to determine the nature of previous activities that may have occurred on the site;
- Undertake a site inspection to determine any obvious contamination risks;
- Prepare a Sampling and Analysis Quality Plan (SAQP) for the investigation;

[1] Planning certificates which are now (at the time of reporting of the Rev 1 version) known as 10.7 planning certificates. The review was completed as part of the previous versions of this report.

- Excavate 130 test pits (C1 to C130) across the original investigation area at accessible locations to complement five previous boreholes from which contamination sampling was undertaken. Of these 130 test pits, 28 were located within the current proposed development – refer to Drawing C3 Appendix B for test pits undertaken in the current proposed development;
- Install six temporary groundwater monitoring wells (GW1 to GW6) to allow an assessment of groundwater quality to be made. Of the six wells installed, two (GW2 and GW3) were located within the current proposed development;
- Collect soil and groundwater samples during and analyse the samples for a range of potential contaminants including:
  - Total recoverable hydrocarbons (TRH);
  - Benzene, Toluene, Ethylbenzene, Xylene (BTEX);
  - Polycyclic aromatic hydrocarbons (PAH);
  - Organochlorine pesticides and organophosphorus pesticides (OCP & OPP);
  - Polychlorinated biphenyls (PCB);
  - Phenol;
  - Heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni and Zn);
  - Asbestos in soils;
  - Volatile organic compounds (VOC) in groundwater; and
  - Per- and poly-fluoroalkyl substances (PFAS) in groundwater.
- Provide a DSI report which comments on the recorded levels of contamination in the soils and groundwater on the site, the suitability of the site for the proposed development and recommended follow up action; and
- Store remaining soil and groundwater samples not analysed for a period of one month pending the need for further analysis.

5. Site History

5.1 Historical Land Uses

Historical land title information was obtained for Lot 2 DP 1051798. The site was originally dedicated for used as an agricultural college in 1892. The registered proprietor eventually became Western Sydney University. It appears that the use of the land has not changed since its original dedication.

The historical title deed information is included in Appendix C.

5.2 Aerial Photographs

Aerial photographs from 1947, 1961, 1970, 1982, 1994 and 1998 were used to assess historical land-use patterns on the site. The 1947 photograph shows that the site is vacant and being used for agricultural purposes. A small dam is located in the central-southern area of the original investigation area. Buildings associated with the agricultural college are located to the north.

The 1961, 1970 and 1982 photographs show similar conditions to the 1947 view. Some additional college buildings are evident to the north, however the development site remains vacant and in use for agricultural purposes.

The 1994 and 1998 photographs show that the university buildings are now encroaching along the northern boundary of the site, although the site itself is still being used for agricultural purposes.

The aerial photographs are attached in Appendix C.

5.3 Section 149 (now Section 10.7) Certificate

A Section 149 Planning Certificate issued under the *Environmental Planning & Assessment Act 1979* was obtained from Hawkesbury City Council. The certificate states that the land is not significantly contaminated, is not the subject of a management order, is not the subject of an approved voluntary management proposal, is not subject to an ongoing maintenance order and is not subject to a site audit statement.

The planning certificate is included in Appendix C.

5.4 Contaminated Lands Register

The site is not identified as being significantly contaminated under the *Contaminated Lands Management Act 1997* as at 7 March 2018. Further, the site is not on the 9 February 2018 version of the 'List of NSW Contaminated Sites Notified to EPA'. It is anticipated that the likelihood that the status of the site has changed since the search was undertaken (i.e. since the Rev 0 version of this report) is low.

5.5 Licenced Groundwater Bores

A search of licenced groundwater bores indicates that although there are no licenced bores on the development site, there are numerous bores on adjacent sites. The uses of the bores are listed as domestic, irrigation, industrial and monitoring. The standing water level depths were listed at between about 10 m and 15 m. The locations of nearby bores are shown in Figure 2.

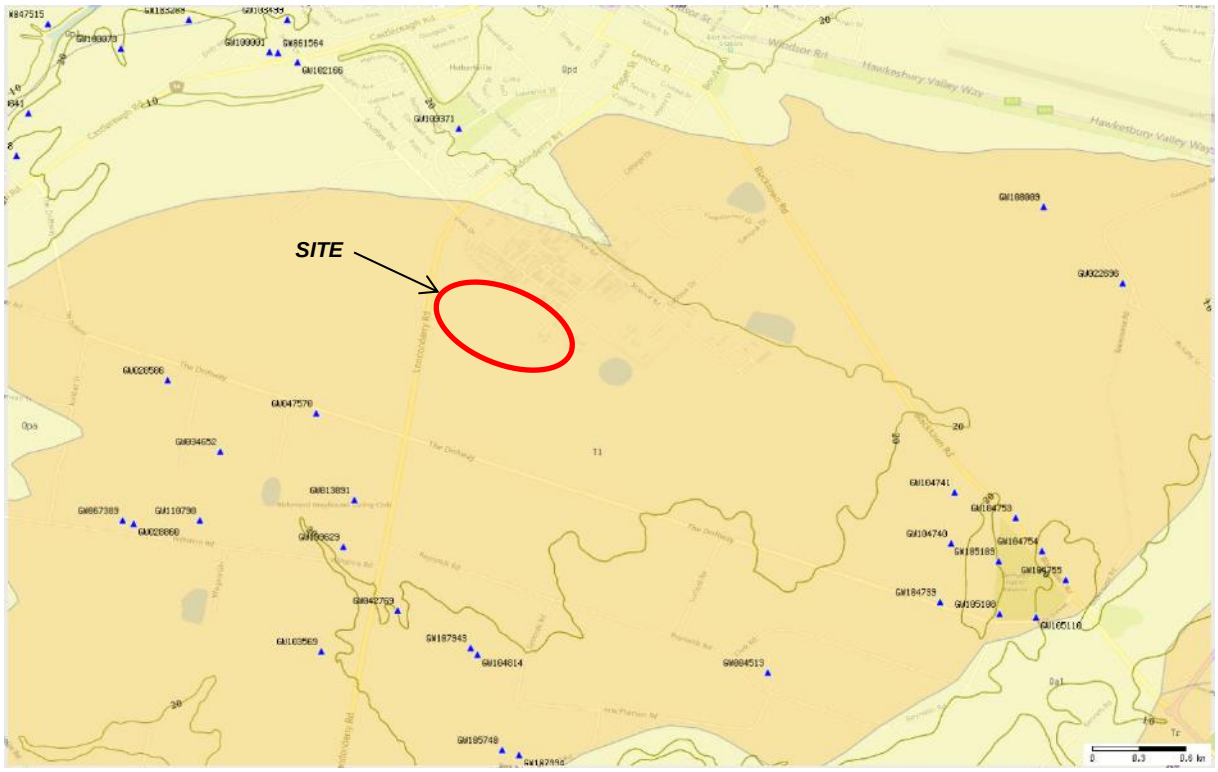

Figure 2: Locations of licenced groundwater bores

6. Results of Inspection

A site inspection was undertaken by an engineer during the field work for the DSI. Photographs of the development area are shown in Figures 3 and 4. The site was largely grassed, fenced and serviced by a number of drainage swales. There were no obvious signs of widespread contamination observed at the time of the inspection.

Two small stockpiles were encountered in the central-northern portion of the site (refer to Drawing 1 in Appendix B) which were also included in the sampling regime.

Figure 3: Typical view of undeveloped site

Figure 4: Photograph of typical drainage swale

7. Conceptual Site Model

The site history information indicates that the site has been used for agricultural teaching purposes since the late 19th Century. Activities of a rural nature have therefore been undertaken on the site for at least the last 120 years.

Potentially contaminating activities that may have occurred on the site include:

- The placement of filling on the site (including the identified stockpiles);
- Contaminants associated with farming/grazing (e.g. pesticides);
- The placement of waste and/or incinerator ash which was prevalent in rural areas throughout the 20th Century; and
- Naturally occurring elements in the soils and rock underlying the site (e.g. heavy metals).

The regional groundwater table is likely to relatively shallow. Significant excavation is not proposed and the use of groundwater within the development will only be undertaken (if at all) following approvals for groundwater extraction. The quality of the groundwater from a land-use perspective will therefore probably only be of significance if volatile contaminants are present.

Soil vapour intrusion and/or ground gas will only need to be considered if significant concentrations of volatile organic compounds or other gas-producing products are encountered on the site.

The human receptors to soil contamination are likely to be the teachers, students, support staff and visitors to the redeveloped site. Construction personnel, nearby workers/students/residents and the general public may also be receptors during the construction phase of the redevelopment project.

The ecological receptors are likely to be limited to the flora and fauna that grow/live on the adjacent sites as well as farmed animals. The area is not known to be ecologically significant.

Exposure pathways are expected to be limited to dermal contact with soils on the site by humans, ingestion of soils and vegetation by fauna, and phytotoxic exposure to flora.

8. Selected Comparative Criteria

The *National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater* (NEPC, 2013) provides assessment levels for various soil, groundwater and vapour contaminants. The site is assumed to be a category 'A' site (i.e. HIL A) which uses include primary schools. This is more conservative than category 'C' sites (i.e. HIL C) which uses include secondary schools, however soil contact is likely to be more prevalent at an agricultural school and therefore the more stringent criteria are likely to be more representative.

Ecological-based assessment is based on the relevant screening levels/added concentrations for coarse-grained sites due to the sandy nature of the upper soil profile.

The quantitative site assessment criteria adopted are shown in Tables F6 and F9 in Appendix F.

9. Data Quality Objectives

The investigation procedures and data quality objectives have been devised in general accordance with the seven-step data quality objective (DQO) process outlined in Australian Standard AS 4482.1 – 2005 *Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds*. The various DQOs and QA/QC procedures adopted for the assessment are outlined in the SAQP which is included in Appendix D. They have not been duplicated within the body of this report.

10. Field Work Procedures

10.1 Soils Assessment

The field work for the PSI in 2016 included the drilling of 11 boreholes (BH1 to BH11) across the original investigation area to depths of 7.5 m. All boreholes were drilled using solid flight augers. Standard penetration tests (SPTs) were undertaken at regular depth intervals and all field work was supervised on site by an engineer. The field work for the DSI included the excavation of 130 test pits (C1 to C130) to depths of between 0.5 m and 2.2 m using a 6 t excavator with bucket attachment, of which 28 were located within the current proposed development.

The sampling locations of all tests are shown on Drawings C1 (original investigation area) and C3 (current proposed development) in Appendix B. This testing density is considered sufficient for categorising the whole site on the basis of the minimum requirements outlined in *Contaminated Sites: Sampling Design Guidelines* (NSW EPA, 1995). A slightly reduced sampling density was observed for the current proposed development (70 % of the EPA, 1995 guidelines). Given the general consistency of ground conditions and the absence of possible obvious discrete contamination sources within the current proposed development, the sampling density here is not considered to impact on the objectives of this DSI.

Sampling from the boreholes was primarily undertaken from the augers. The mixing of soils from different depth horizons was minimised during sampling by careful drilling and supervision. Sampling from test pits was undertaken typically from the walls of the pit or from material within the centre of the bucket.

Soil sampling for contamination testing purposes was performed in general accordance with the sampling procedures outlined in the *DP Field Procedures Manual*. All sampling data was recorded on chain of custody information sheets. The sampling activities generally included:

- Soil sampling using decontaminated and/or disposable equipment;
- Placement of samples into laboratory prepared jars and immediate capping;
- Labelling of sample containers with individual and unique markings including project number, sample location, sample depth and date of sampling; and
- Storage of sample containers in a cooled, insulated and sealed container for transport to the laboratory.

The ground surface levels at the test locations (to AHD) were interpolated from a survey plan using coordinates measured using a differential global positioning system (dGPS) receiver.

10.2 Groundwater Assessment

The field work for the groundwater assessment included the installation of six temporary groundwater monitoring wells (GW1 to GW6) within boreholes drilled to 6 m depth using a Comacchio Geo 305 drilling rig. This involved placing Class 18 uPVC screen and solid casing in each borehole. A gravel pack was placed around the screen and a bentonite plug was placed above the gravel. The remainder of the void was backfilled with drill cuttings and the top of the wells were finished approximately 1 m above with the surface.

Groundwater sampling was performed in general accordance with the standard sampling procedures outlined in the *DP Field Procedures Manual*. All sampling data were recorded on field sheets and chain-of-custody information sheets. The sampling generally included:

- Development of the wells by pumping the wells dry;
- Groundwater sampling using a low flow pump in GW2 only. The other wells were dry;
- Placement of samples into laboratory prepared and preserved bottles and immediate capping;
- Labelling of sample containers with individual and unique markings including project number, sample location and date of sampling; and
- Storage of sample containers in a cooled, insulated and sealed container for transport to the laboratory.

The ground surface levels at the bores (to AHD) were interpolated from a survey plan using coordinates measured using a differential global positioning system (dGPS) receiver.

11. Results of Assessment

11.1 Field Work Results

The subsurface conditions encountered in the boreholes and test pits are presented in the logs in Appendix E. Notes defining descriptive terms and classification methods are included in Appendix A.

The testing encountered the following materials across the original investigation area:

- Topsoil (typically silty sand with rootlets, gravel) to depths of between 0.01 m and 0.9 m; or
- Filling (silty sand with non-soil anthropogenic inclusions such as gravel, plastic bags, rags, plastic bottles, porcelain, brick, glass, terracotta, metal, concrete, plastic and fibre-cement sheeting) in 15 test locations to depths of up to 2.5 m. The fill containing anthropogenic inclusions were encountered in test pits undertaken in the south western and central portion of the original investigation area, but outside of the current proposed development; underlain by
- Sands (medium dense to very dense silty sand, clayey sand, clayey silty sand) to depths of up to 4.8 m; underlain by
- Clays (stiff to very stiff silty clay, sandy silty clay, sandy silt) to the base of the deeper bores at 7.5 m depth.

Two small stockpiles of filling were also encountered on the site (refer to Drawing C1 in Appendix B), however, these were located outside of the extent of the current proposed development and were sampled for laboratory analysis.

Free groundwater was observed at depths of between 0.3 m and 2.5 m in all bores except BH2 and BH3 (present on the current proposed development) which were dry at the completion of drilling. Groundwater was not observed during the excavation of any of the test pits.

The water levels measured in the monitoring wells during sampling are provided in Table 1.

Table 1: Groundwater Observations in Monitoring Wells (Depth in m)

Date	GW1	GW2	GW3	GW4	GW4	GW6
15 Mar 2018	> 6m	2.5 m	> 6m	> 6m	> 6m	> 6m

11.2 Analytical Results for Soil and Groundwater Samples

Envirolab Services Pty Ltd (Envirolab) was commissioned to undertake the analysis of the primary soil and groundwater samples. Eurofins mgt was commissioned to undertake selected QA/QC analysis. Summaries of the results are provided in Appendix F as follows:

- Table F1: Contaminant Concentrations in Topsoil/Filling.
- Table F2: Statistical Analysis of Topsoil/Filling.
- Table F3: Contaminant Concentrations in Natural Soil.
- Table F4: Statistical Analysis of Natural Soils.
- Table F5: Contaminant Concentrations in QA/QC Samples.
- Table F6: Adopted Comparative Criteria for Soils.
- Table F7: Results of Material Sample Analysis.
- Table F8: Contaminant Concentrations in Groundwater.
- Table F9: Adopted Comparative Criteria for Groundwater.

The detailed report sheets and chain-of-custody documentation are included in Appendix G.

11.3 Field and Laboratory Quality Control Procedures

The field and laboratory QA/QC procedures adopted for the current assessment are described in Appendix H.

12. Discussion of Results

12.1 Soil Contamination

A total of 126 soil samples (excluding QA/QC samples) were selectively analysed from 135 boreholes and test pits on the site including 28 from the current proposed development. This testing frequency is considered sufficient for characterising the site as discussed in Section 10.1. The rationale for selecting the test locations is provided in the SAQP in Appendix D.

No contamination was identified in the current proposed development.

12.2 Groundwater Contamination

Wells GW1, GW2 and GW3 were developed on 12 March 2018 by pumping them dry. Wells GW4, GW5 and GW6 were dry (to 6 m depth) and could therefore not be developed. Well GW2 was sampled on 15 March 2018. Wells GW1 and GW3 could not be sampled as they were dry at the time of sampling.

The contaminants exceeding the groundwater investigation levels in the sample obtained from GW2 were:

- Copper at a concentration of 11 μg/L (GIL is 1.4 μg/L); and
- Zinc at a concentration of 29 μg/L (GIL is 8 μg/L).

All other contaminant concentrations in the groundwater sample were within the adopted comparative criteria.

These values are typical of background concentrations measured within the Sydney basin and are still relatively low in absolute terms. As such, the concentrations of Copper and Zinc are considered insignificant for the proposed development. The fact that groundwater appears to be greater than 6 m below the surface in the remainder of the site also suggests that the quality of the groundwater will not hinder the proposed development.

13. Conclusions and Recommendations

13.1 Soils

The available site history information indicates that the site has generally been used for agricultural purposes, including tertiary education, since the late 19th Century. Areas of the central-southern portion of the site appears to have been backfilled with demolition waste at some stage; this could have included filling a former dam or drainage channel. A small area in the central-northern portion of the site also includes some anthropogenic inclusions. Both of these areas are shown in yellow on Drawing C2 in Appendix B.

No exceedances were identified within the current proposed development.

Based on the findings of the DSI, no remediation is required within the current proposed development. If works extend into the remainder of the site and where metal and asbestos exceedances were noted, it will be necessary to undertaken some form of remediation or management to appropriately manage contamination risks with reference to the project Remediation Action Plan (reference 85644.07).

Based on the findings of this DSI, it is considered that the soils on the site within the current proposed development will be suitable for the proposed secondary school land-use.

Any materials required to be removed from the site will need to be classified in accordance with the current *Waste Classification Guidelines* (NSW EPA, 2014). It is noted that further waste classification testing should be undertaken on materials to be removed from the site because some of the concentrations measured in the current assessment warrant a Restricted Solid Waste classification (pending future leachability analysis) and additional testing may allow a reduction in this classification. Any material that contains asbestos would also be classified as Special Waste – Asbestos.

13.2 Groundwater

Only one groundwater sample (GW2) could be obtained from the six wells as the remainder of the wells were dry to their bases at 6 m depth. The concentrations of copper and zinc were above the adopted investigation levels, however are considered typical of background concentrations in Sydney and insignificant.

As such, the quality and depth of groundwater measured on the site to date is not expected to hinder the proposed school development from a contamination perspective.

14. Future Works

No future contamination-specific works are required in the current proposed development. The following future contamination-specific works are required for the remainder of the original investigation area located outside of the current proposed development:

- Develop a RAP to ensure the remediation works which will form part of the development works are undertaken in accordance with the law/regulation and accepted industry practices. This should be prepared post development approval but prior to issuing the Construction Certificate;
- Excavate the impacted materials from the areas of concern and dispose at suitable facilities/sites;
- Validate the materials that will remain on site in accordance with the requirements of the RAP; and
- Prepare a Site Validation Report confirming site suitability once remediation has been completed.

15. Limitations

Douglas Partners Pty Ltd (DP) has prepared this report for the proposed Centre of Excellence in Agricultural Education (CoE) campus, Londonderry Road, Richmond, in accordance with DP's proposal dated 9 October 2017 and subsequent acceptance received from Conrad Gargett Pty Ltd and variations. The report is provided for the use of Conrad Gargett Pty Ltd and NSW Department of Education for this project only and for the purpose(s) described in the report. It should not be used for other projects or by a third party.

The results provided in the report are indicative of the sub-surface conditions only at the specific sampling or testing locations, and then only to the depths investigated and at the time the work was carried out. Subsurface conditions can change abruptly due to variable geological processes and also as a result of anthropogenic influences. Such changes may occur after DP's field testing has been completed. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

Asbestos has been detected by both observation and by laboratory analysis. Building demolition materials, such as concrete, brick, tile etc. were also identified in areas where asbestos was not observed. Such materials are considered as indicative of the possible presence of hazardous building materials (HBM), including asbestos.

Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the site that have not been sampled and analysed. It is therefore considered possible that HBM, including asbestos, may be present in unobserved or untested parts of the site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present elsewhere on the site.

This report must be read in conjunction with all of the attached notes and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion given in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

Douglas Partners Pty Ltd

Appendix A

About this Report

About this Report

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Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Sampling Methods

Douglas Partners

Sampling

Sampling is carried out during drilling or test pitting to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing it to obtain a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Test Pits

Test pits are usually excavated with a backhoe or an excavator, allowing close examination of the in-situ soil if it is safe to enter into the pit. The depth of excavation is limited to about 3 m for a backhoe and up to 6 m for a large excavator. A potential disadvantage of this investigation method is the larger area of disturbance to the site.

Large Diameter Augers

Boreholes can be drilled using a rotating plate or short spiral auger, generally 300 mm or larger in diameter commonly mounted on a standard piling rig. The cuttings are returned to the surface at intervals (generally not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube samples.

Continuous Spiral Flight Augers

The borehole is advanced using 90-115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are disturbed and may be mixed with soils from the sides of the hole. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively low reliability, due to the remoulding, possible mixing or softening of samples by groundwater.

Non-core Rotary Drilling

The borehole is advanced using a rotary bit, with water or drilling mud being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from the rate of penetration. Where drilling mud is used this can mask the cuttings and reliable identification is only possible from separate sampling such as SPTs.

Continuous Core Drilling

A continuous core sample can be obtained using a diamond tipped core barrel, usually with a 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in weak rocks and granular soils), this technique provides a very reliable method of investigation.

Standard Penetration Tests

Standard penetration tests (SPT) are used as a means of estimating the density or strength of soils and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, Methods of Testing Soils for Engineering Purposes - Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of, say, 4, 6 and 7 as:

  4,6,7
  N=13

- In the case where the test is discontinued before the full penetration depth, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm as:

  15, 30/40 mm

The results of the SPT tests can be related empirically to the engineering properties of the soils.

Dynamic Cone Penetrometer Tests / Perth Sand Penetrometer Tests

Dynamic penetrometer tests (DCP or PSP) are carried out by driving a steel rod into the ground using a standard weight of hammer falling a specified distance. As the rod penetrates the soil the number of blows required to penetrate each successive 150 mm depth are recorded. Normally there is a depth limitation of 1.2 m, but this may be extended in certain conditions by the use of extension rods. Two types of penetrometer are commonly used.

- Perth sand penetrometer - a 16 mm diameter flat ended rod is driven using a 9 kg hammer dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.
- Cone penetrometer - a 16 mm diameter rod with a 20 mm diameter cone end is driven using a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). This test was developed initially for pavement subgrade investigations, and correlations of the test results with California Bearing Ratio have been published by various road authorities.

Soil Descriptions

Douglas Partners

Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are based on Australian Standard AS 1726, Geotechnical Site Investigations Code. In general, the descriptions include strength or density, colour, structure, soil or rock type and inclusions.

Soil Types

Soil types are described according to the predominant particle size, qualified by the grading of other particles present:

Type	Particle size (mm)
Boulder	>200
Cobble	63 - 200
Gravel	2.36 - 63
Sand	0.075 - 2.36
Silt	0.002 - 0.075
Clay	<0.002

The sand and gravel sizes can be further subdivided as follows:

Type	Particle size (mm)
Coarse gravel	20 - 63
Medium gravel	6 - 20
Fine gravel	2.36 - 6
Coarse sand	0.6 - 2.36
Medium sand	0.2 - 0.6
Fine sand	0.075 - 0.2

The proportions of secondary constituents of soils are described as:

Term	Proportion	Example
And	Specify	Clay (60%) and Sand (40%)
Adjective	20 - 35%	Sandy Clay
Slightly	12 - 20%	Slightly Sandy Clay
With some	5 - 12%	Clay with some sand
With a trace of	0 - 5%	Clay with a trace of sand

Definitions of grading terms used are:

- Well graded - a good representation of all particle sizes
- Poorly graded - an excess or deficiency of particular sizes within the specified range
- Uniformly graded - an excess of a particular particle size
- Gap graded - a deficiency of a particular particle size with the range

Cohesive Soils

Cohesive soils, such as clays, are classified on the basis of undrained shear strength. The strength may be measured by laboratory testing, or estimated by field tests or engineering examination. The strength terms are defined as follows:

Description	Abbreviation	Undrained shear strength (kPa)
Very soft	vs	<12
Soft	s	12 - 25
Firm	f	25 - 50
Stiff	st	50 - 100
Very stiff	vst	100 - 200
Hard	h	>200

Cohesionless Soils

Cohesionless soils, such as clean sands, are classified on the basis of relative density, generally from the results of standard penetration tests (SPT), cone penetration tests (CPT) or dynamic penetrometers (PSP). The relative density terms are given below:

Relative Density	Abbreviation	SPT N value	CPT qc value (MPa)
Very loose	vl	<4	<2
Loose	l	4 - 10	2 -5
Medium dense	md	10 - 30	5 - 15
Dense	d	30 - 50	15 - 25
Very dense	vd	>50	>25

Soil Descriptions

Soil Origin

It is often difficult to accurately determine the origin of a soil. Soils can generally be classified as:

- Residual soil - derived from in-situ weathering of the underlying rock;
- Transported soils - formed somewhere else and transported by nature to the site; or
- Filling - moved by man.

Transported soils may be further subdivided into:

- Alluvium - river deposits
- Lacustrine - lake deposits
- Aeolian - wind deposits
- Littoral - beach deposits
- Estuarine - tidal river deposits
- Talus - scree or coarse colluvium
- Slopewash or Colluvium - transported downslope by gravity assisted by water. Often includes angular rock fragments and boulders.

Appendix B

Drawings

0 10 20 30 40 60 80 100 150 200 250m

1:2500 @ A30

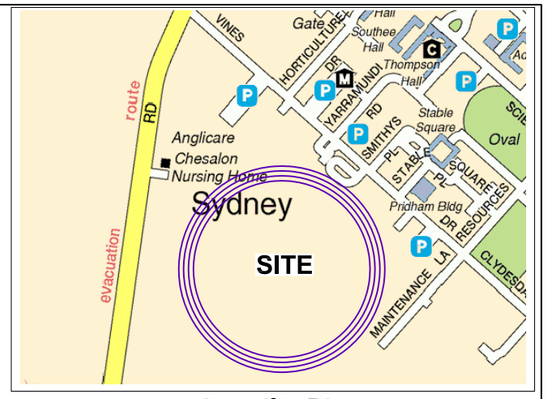
APPROXIMATE_SITE_BOUNDARY

STOCKPILE_2

STOCKPILE_1

GW1 GW2 GW3 GW4 GW5 GW6

BH3 BH5 BH6 BH9



Locality Plan

NOTE:
1: Base drawing from Rygate & Company Pty Ltd (Ref. 77526, dated 9.6.2016)

LEGEND

- Test Pit
- Groundwater Well
- Borehole

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Conrad Gargett Pty Ltd	TITLE: **Locations of Tests for DSI (Contamination)** **Hurlstone Agricultural High School (Hawkesbury)** **Londonderry Road, RICHMOND**
	OFFICE: Sydney / DRAWN BY: PSCH	
	SCALE: 1:2500 @ A3 / DATE: 26.02.2018	
		PROJECT No: 85644.04
		DRAWING No: C1
		REVISION: 1

0 10 20 30 40 60 80 100 150 200 250m

1:2500 @ A30

APPROXIMATE_SITE_BOUNDARY

Zinc 880 mg/kg
ACM fragments

ACM fragments

Benzo(a)pyrene 8.2 mg/kg

Zinc 730 mg/kg, ACM fragments

ACM fragments

Lead 1700 mg/kg, Zinc 3700 mg/kg
ACM fragments

Existing brick wall

LEGEND

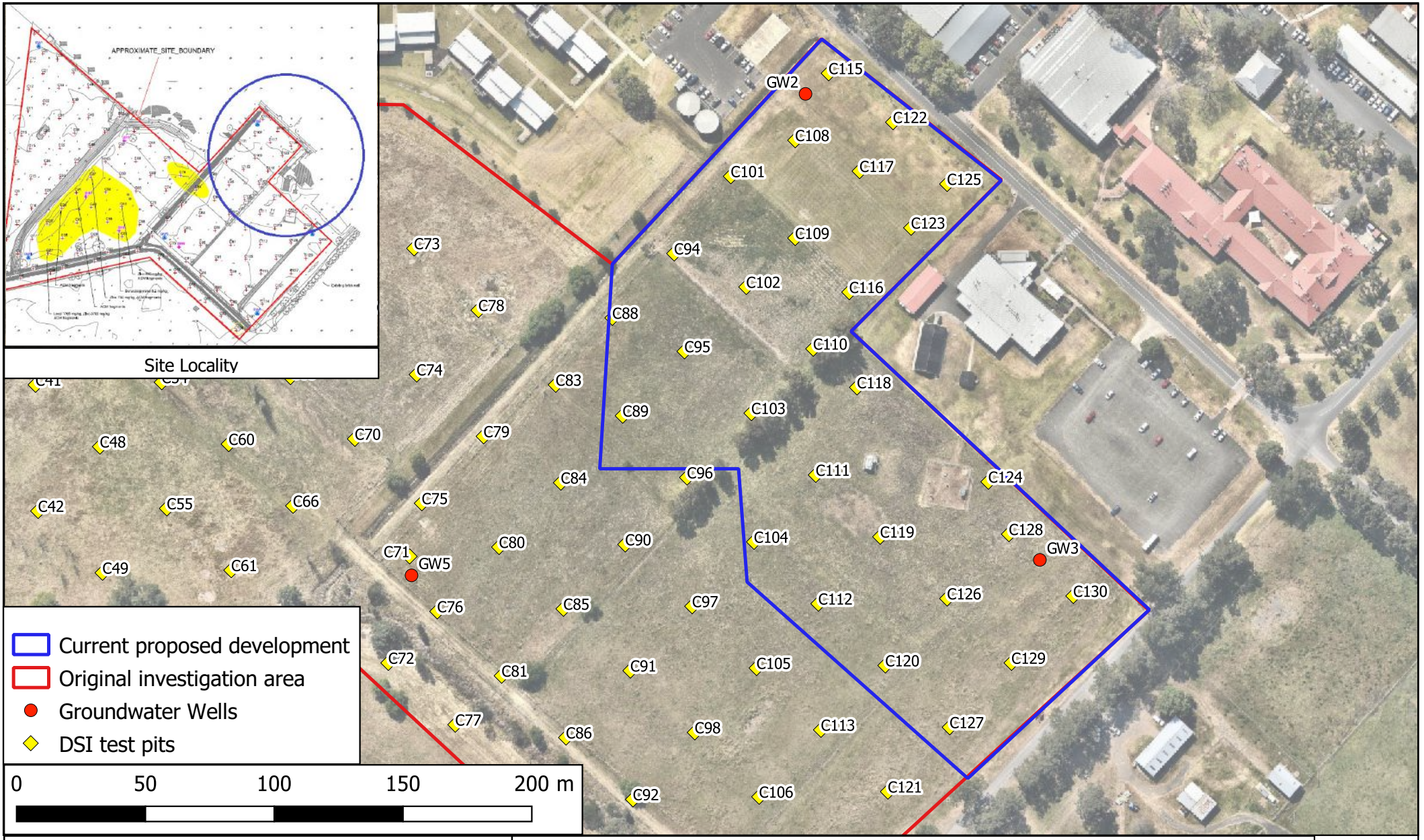
- Test Pit
- Groundwater Well
- Borehole
- Anthropogenic inclusions encountered in these areas (approximate only)

Douglas Partners
Geotechnics | Environment | Groundwater

CLIENT: Conrad Gargett Pty Ltd		TITLE: **Locations of Significant Contaminant Concentrations** **Hurlstone Agricultural High School (Hawkesbury)** **Londonderry Road, RICHMOND**
OFFICE: Sydney	DRAWN BY: PSCH	
SCALE: 1:2500 @ A3	DATE: 26.02.2018	

N

PROJECT No:	85644.04
DRAWING No:	C2
REVISION:	0



Douglas Partners
Geotechnics / Environment / Groundwater

TITLE: **Test Pit Location Plan - Current Proposed Development (Rev 1 DSI)**
Hurlstone Agricultural High School (Hawkesbury)
Londonderry Road, Richmond

CLIENT: Woolacotts Consulting Engineers Pty Ltd	PROJECT No.: 85644.04	SCALE: As shown	DRAWING No: C3
OFFICE: Macarthur	DRAWN BY: EME	DATE: 24 March 2021	REVISION: 0

Appendix C

Historical Information

scottASHWOOD PTY.LTD
An InfoTrack Company

ABN: 42 166 543 255
Ph: 02 9099 7400
Fax: 02 9232 7141
(Ph: 0412 199 304)

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

Summary of Owners Report

LPI **Sydney**

Address: - Western Sydney University, Richmond

Description: - Lot 2 D.P. 1051798

The early title to this land was Crown Title

We are aware of the following events

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
25.11.1892	Dedicated for Agricultural College	Government Gazette
11.11.1983	Revoked	
11.11.1983	Dedicated for College of Advanced Education	Government Gazette
04.06.1993	Establishment of The Hawkesbury Campus (UWS) Reserve Trust	Government Gazette
28.04.1994	Issue of Title 182/39768 # State of New South Wales (Subject to "The Hawkesbury Campus (UWS) Reserve Trust")	182/39768 Now 2/1051798
11.09.1997	Subject to the provisions of the University of Western Sydney Act 1988 (as amended 1989) in particular the powers of the Board of Governers	

# Denotes Current Registered Proprietor

Leases: -

- 14.11.2007 (AD 464548 to AD 464551 – Concurrent leases) to Telstra Corporation Limited, of part – expiring 15.06.2025
- 19.12.2013 (AI 55845 to AI 55849 – Concurrent leases) to Crown Castle Australia Pty Ltd, of part – expires 14.02.2034

Easements: -

- 25.05.1956 Easement for Transmission Line 30.48 wide
- 06.10.1961 Easement for Water Main
- 27.10.1967 (D.P. 234173) Easement for Water Main
- 07.05.1976 (D.P. 563779) Easement for Rising Main
- 16.04.2003 (D.P. 1051798) Easement to Drain Water 14.5 metres wide
- 16.04.2003 (D.P. 1051798) Easement to Drain Sewage 2 metres wide

Subject to Forestry Right (timber) to Zoological Parks Board of New South Wales, affecting part – expires 31.12.2015

Yours Sincerely
Mark Groll
24 October 2016

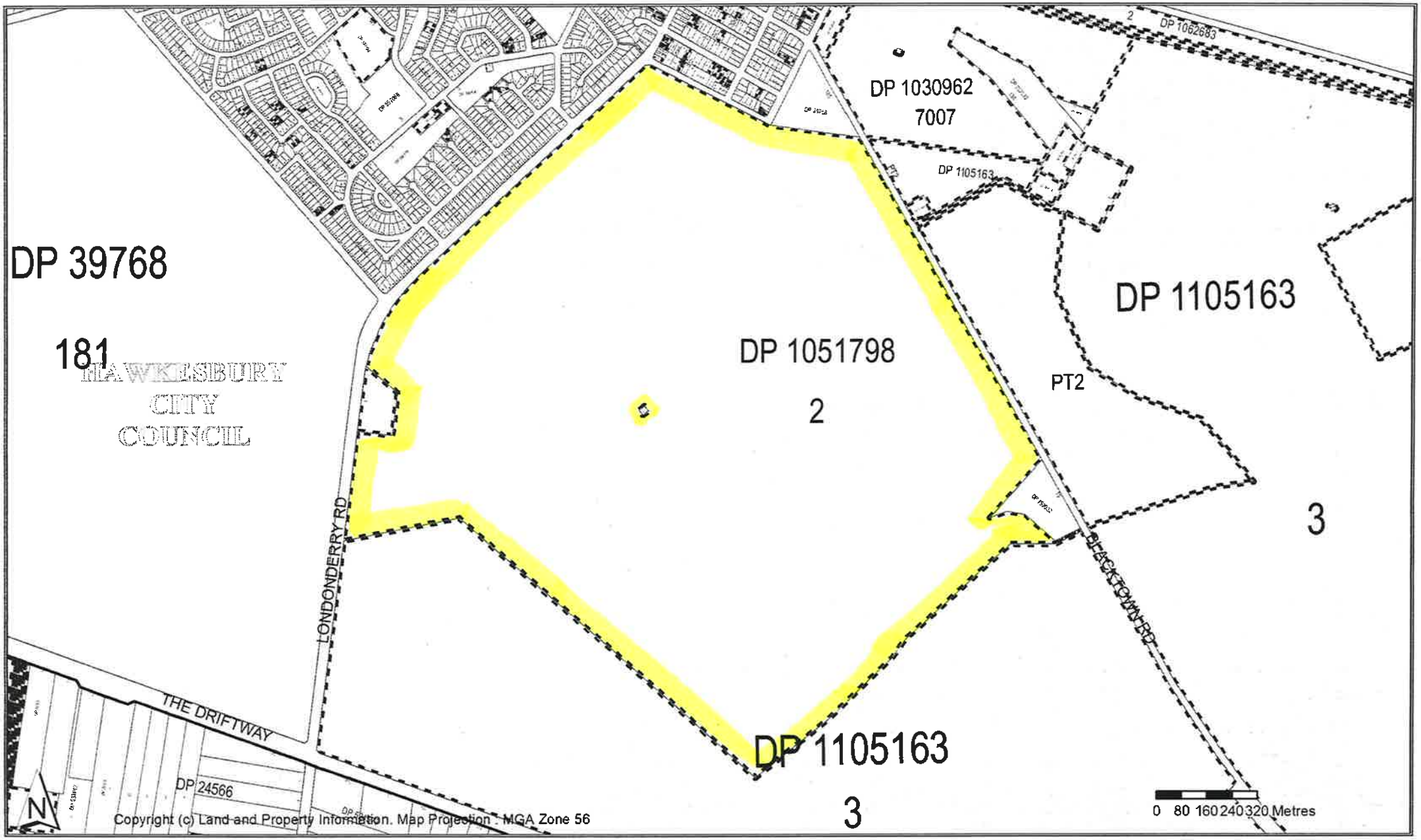
Land & Property Information

Cadastral Records Enquiry Report

Ref : MARK

Requested Parcel : Lot 2 DP 1051798 **Identified Parcel :** Lot 2 DP 1051798

Locality : RICHMOND **LGA :** HAWKESBURY **Parish :** HAM COMMON **County :** CUMBERLAND



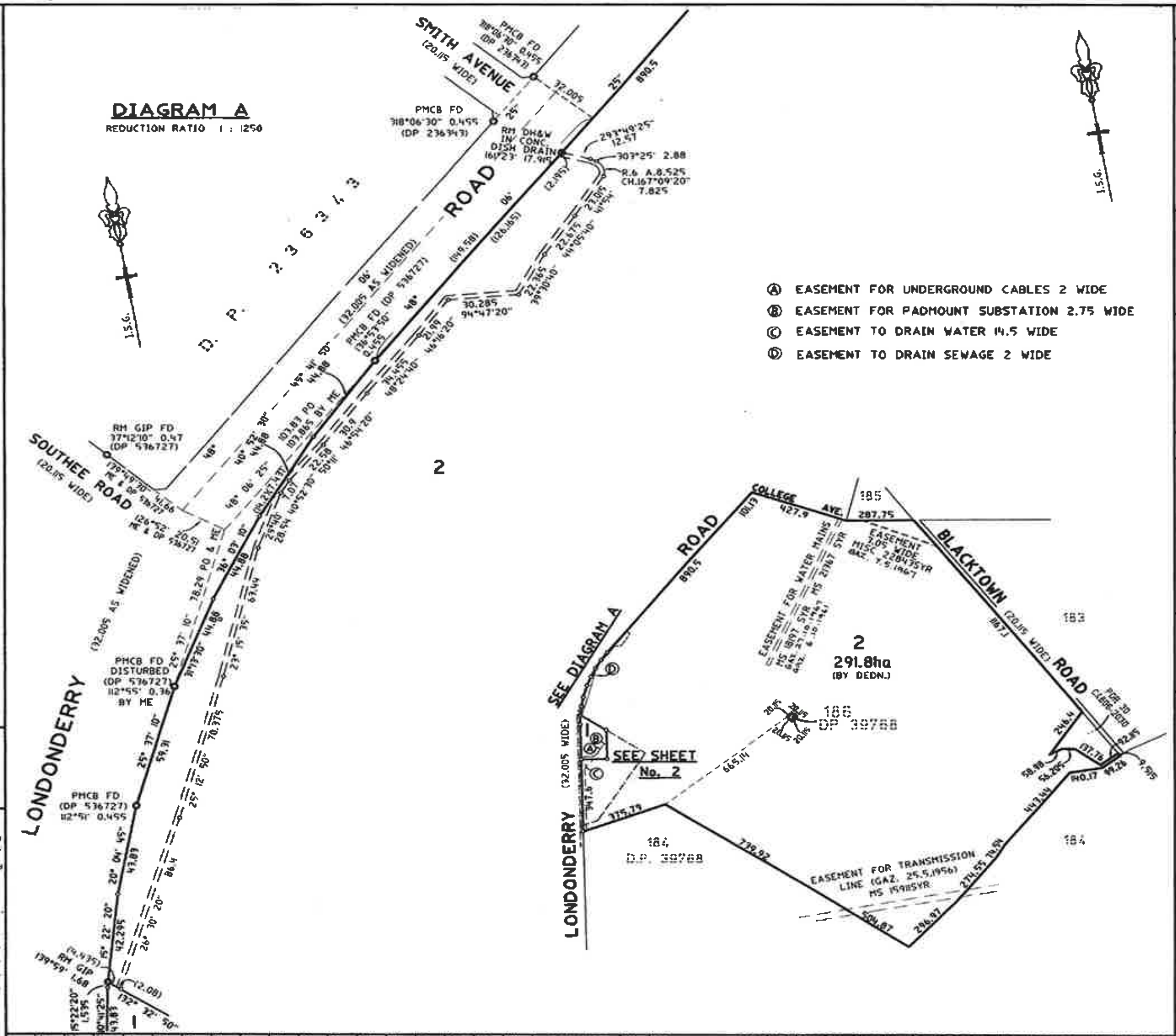
Report Generated 9:18:46 AM, 24 October, 2016

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

PLAN FORM 2A

SIGNATURES AND SEALS ONLY.

Plan Drawing only to appear in this space



DP1051798

Registered: 16-4-2003
CA SEE CERTIFICATE
Title System TORRENS
Purpose SUBDIVISION
Ref Map U7375-5, 23,24,42,51
Last Plan DP 39768

PLAN OF SUBDIVISION OF LOT 182 IN D.P. 39768

Lengths are in metres. Reduction Ratio 1 : 12500

L.G.A. HAWKESBURY
Locality RICHMOND
Parish HAM COMMON
County CUMBERLAND

This is sheet 1 of my plan in 2 sheets
(Delete if inapplicable)

Surveyors (Practice) Regulation 1996
I, TERENCE JOHN WALKER
of DEGOTARDI SMITH AND PARTNERS
11/19-23 BRIDGE STREET, PYMBLE
a surveyor registered under the Surveyors Act 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practice) Regulation 1996 and was completed on 28 MAY 1999.
The survey relates to LOT 1 & PART LOT 2
(here specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey)
Datum Line: "X"-"Y"
(Signature) .... Surveyor registered under the Surveyors Act, 1929.

Plans used in preparation of survey/compilation
D.P. 39079
D.P. 536727
D.P. 39768
D.P. 236343

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

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

1) EASEMENT FOR UNDERGROUND CABLES 2 WIDE
2) EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
3) EASEMENT TO DRAIN WATER 14.5 WIDE & VARIABLE
4) EASEMENT TO DRAIN SEWAGE 2 WIDE

Crown Lands Office Approval
PLAN APPROVED .... Authorised Officer
Land District ....
Paper No. ....
Field Book .... pages

SUBDIVISION CERTIFICATE
I hereby certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to:
* the proposed SUBDIVISION set out herein (insert 'subdivision' or 'new road')
* the subdivision is for lease purposes in accordance with s.23H of the Conveyancing Act 1919 *
Authorised Person/General Manager/Accredited Certifier
Consent Authority: Hawkesbury City Council
Date of Endorsement: 11 September 2001
Accreditation No. ....
Subdivision Certificate No. 01063
File No. MA 1076/00
Note:
When the plan is to be lodged electronically in the Land Titles Office, it should include a signature in an electronic or digital format approved by the Registrar-General.
* Delete whichever is inapplicable.

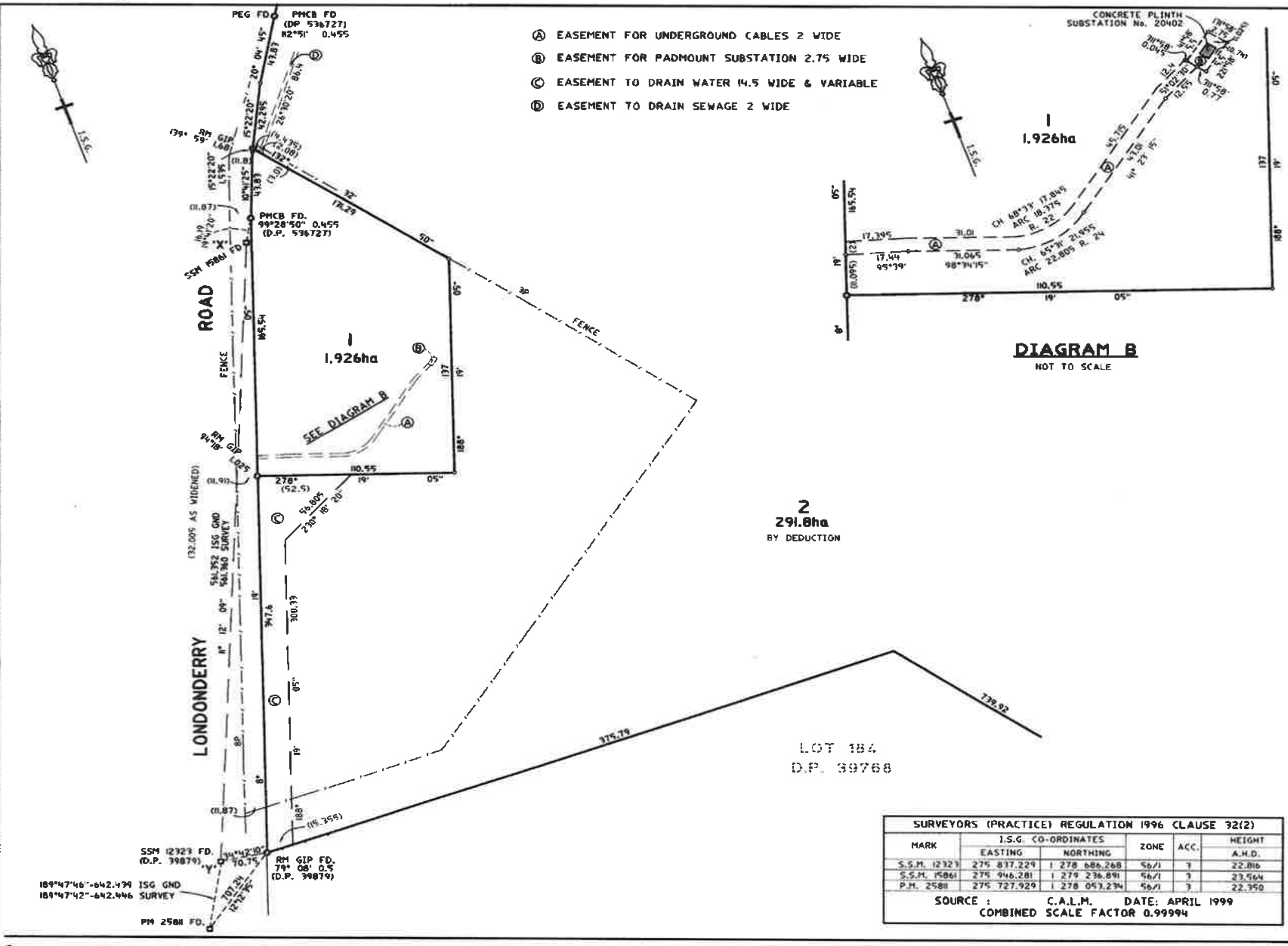
SURVEYOR'S REFERENCE: 27811DP1/2 CHECKLIST

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

PLAN FORM 3

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

Ⓐ EASEMENT FOR UNDERGROUND CABLES 2 WIDE
Ⓑ EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
Ⓒ EASEMENT TO DRAIN WATER 14.5 WIDE & VARIABLE
Ⓓ EASEMENT TO DRAIN SEWAGE 2 WIDE



SURVEYORS (PRACTICE) REGULATION 1996 CLAUSE 32(2)					
MARK	I.S.G. CO-ORDINATES		ZONE	ACC.	HEIGHT
	EASTING	NORTHING			A.H.D.
S.S.M. 12323	275 837.229	1 278 686.268	56/1	3	22.816
S.S.M. 15861	275 946.281	1 279 236.891	56/1	3	23.564
P.M. 25811	275 727.929	1 278 057.234	56/1	3	22.350

SOURCE : C.A.L.M. DATE: APRIL 1999
COMBINED SCALE FACTOR 0.99994

Plan Drawing only to appear in this space

Y

DP1051798

Registered: 16·4·2003

This is sheet 2 of my plan in 2 sheets dated 28·5·1999

Surveyor registered under Surveyors Act, 1929

This is sheet 2 of the plan of 2 sheets covered by my Certificate No. 01063 of 11 September 2001

Council Clerk

For use where space is insufficient in any panel on Plan Form 2.

Reduction Ratio 1 : 1500

SURVEYOR'S REFERENCE : 27811DP2/2

Historical Title

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
24/10/2016 9:47PM

FOLIO: 182/39768

First Title(s): 182/39768
Prior Title(s): CROWN LAND

Recorded	Number	Type of Instrument	C.T. Issue
7/4/1994	DP39768	DEPOSITED PLAN	FOLIO CREATED CT NOT ISSUED
28/4/1994	U209117	APPLICATION	EDITION 1
26/10/1995	O634689	REQUEST	
11/9/1997	3361134	REQUEST	EDITION 2
15/4/1999	5753349	DEPARTMENTAL DEALING	
16/4/2003	DP1051798	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

RP81

U 209117 M

APPLICATION

REAL PROPERTY ACT, 1900

(See Instructions for Completion on back of form)

AP

Q 1 of 1

$50.00

DESCRIPTION OF LAND Note (a)

Torrens Title reference	If Part Only, Delete Whole and Give Details	Location
See Annexure "A"	WHOLE	Richmond

REGISTERED DEALING Note (b)

Type of Dealing	Registered Number	Torrens Title Reference

PRESENT REGISTERED PROPRIETOR Note (c)

THE STATE OF NEW SOUTH WALES

Note (d) is presently recorded as ~~REGISTERED~~ PROPRIETOR of the land above described ~~registered dealing~~. Application is hereby made to record

NEW REGISTERED PROPRIETOR(S) Note (e)

The Hawkesbury Campus (UWS) Reserve Trust - being a Reserve Trust constituted for the land dedicated for College of Advanced Education by operation of Clause 4 of the Schedule 8 of the Crown Lands Act, 1989 (Gazetted 4th June 1993 folio 2647 and 2648) having an estate in fee simple in the lands above described by virtue of Section 100, Crown Lands Act, 1989

OFFICE USE ONLY

OVER.

Note (d) as REGISTERED PROPRIETOR of the land above described ~~registered dealing~~ and to amend the Second Schedule of the

Note (f) folios of the Register by adding an additional paragraph as follows:-

~~"The land is a reserve within the meaning of Part 5 of the Crown Lands Act, 1989 and is subject to the provisions of that Act, in particular restrictions on dealings see Section 102"~~.

"The land is dedicated land and is a reserve within the meaning of Part 5 of the Crown Lands Act, 1989 and is subject to the provisions of that Act, in particular restrictions on dealings see Section 102".

DATE 12th April, 1994

EXECUTION Note (g)

I hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900

Signed in my presence by the applicant who is personally known to me

Signature of Witness

CHARLES MICALI

Name of Witness (BLOCK LETTERS)

CROWN LANDS SERVICE - BLACKTOWN

Address and occupation of Witness

By delegation pursuant to section 189 of the Crown Lands Act 1989 and with authority under section 13L of the Real Property Act 1900 from the Minister administering the Crown Lands Act 1989 on behalf of the State of New South Wales

Signature of Applicant

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY C. Micali Box 469S
C/- Crown Lands Service
22 Main Street
BLACKTOWN (MN79 H 924)

MN79 H924 13

Delivery Box Number 469S

LOCATION OF DOCUMENTS	CT	OTHER
Herewith		
In L.T.O. with		
Produced by		

OFFICE USE ONLY

Checked	Passed	REGISTERED · -19
Signed	Extra Fee	

Secondary Directions	
Delivery Directions	

INSTRUCTIONS FOR COMPLETION

This form is to be used only if no other approved form is appropriate for the purpose, e.g., Applications 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 Stamp Duties Division, Department of Finance before lodgment at the Land Titles Office.

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

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled 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 discharge of mortgage is only in respect of a registered dealing, rule through this panel.

(i) TORRENS TITLE REFERENCE—For a Manual Folio insert the Volume and Folio (e.g., Vol. 8514 Fol. 126) For a Computer Folio insert the Folio Identifier (e.g. 12/701824).

(ii) PART/WHOLE—If part only of the land in the folio of the Register is being discharged, delete the word "WHOLE" and insert the lot and plan number, portion, &c.

(b) Registered dealing. (If the discharge of mortgage is only in respect of a folio of the Register, rule through this panel.)
Show the registered number of the lease, mortgage, or charge and the title reference affected thereby, Lease—V123456—Vol. 13456 Fol. 124.—Folio Identifier 1/701692

(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 the execution of this dealing, 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, not being a party to the application, to whom he/she is personally known. 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/her authority, e.g. "AB by his/her attorney (or receiver or delegate, as the case may be), XY pursuant to power of attorney registered Book No "

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/her 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

FIRST SCHEDULE AND OTHER DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME
	S	The Hawkesbury Campus. (U.W.S) Reserve Trust.

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS
183/185/39768. 192-193/729625 10/752032 19/752032	ON	AB		The land is dedicated land and is a reserve within the meaning of part 5 of the Crown Lands Act, 1989 and is subject to the provisions of that Act, in particular restrictions on dealings- See Sec 102.
181/39768	ON	AC.		
182/39768	ON	AD.		
	CT		469s.	

U209117.

B

ANNEXURE "A"

This is annexure marked "A" to form RP 81 APPLICATION dated 12th April, 1994.

The following is a description of the lands the subject of this application:-

Torrens Title reference

181/39768
182/39768
183/39768
185/39768
192/729625
193/729625
10/752032
19/752032

By delegations pursuant to section 189 of the Crown Lands Act 1989 and with authority under section 136 of the Real Property Act 1900 from the Minister administering the Crown Lands Act 1989 on behalf of the State of New South Wales

.....
Signature of Applicant

Historical Title

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
24/10/2016 9:47PM

FOLIO: 2/1051798

First Title(s): 182/39768
Prior Title(s): 182/39768

Recorded	Number	Type of Instrument	C.T. Issue
16/4/2003	DP1051798	DEPOSITED PLAN	FOLIO CREATED CT NOT ISSUED
3/8/2006	AC249568	TRANSFER CREATING PROFIT A PRENDRE OR FORESTRY RIGHT	EDITION 1
14/11/2007	AD464548	LEASE	
14/11/2007	AD464549	LEASE	
14/11/2007	AD464550	LEASE	
14/11/2007	AD464551	LEASE	EDITION 2
24/4/2012	AG943027	DEPARTMENTAL DEALING	
10/7/2012	AH99123	DEPARTMENTAL DEALING	
29/11/2012	AH400106	DEPARTMENTAL DEALING	
8/4/2013	AH648060	DEPARTMENTAL DEALING	
19/12/2013	AI55845	LEASE	
19/12/2013	AI55846	LEASE	
19/12/2013	AI55847	LEASE	
19/12/2013	AI55848	LEASE	
19/12/2013	AI55849	LEASE	EDITION 3

*** END OF SEARCH ***

Title Search

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 2/1051798

SEARCH DATE	TIME	EDITION NO	DATE
24/10/2016	9:48 PM	3	19/12/2013

LAND

LOT 2 IN DEPOSITED PLAN 1051798
AT RICHMOND
LOCAL GOVERNMENT AREA HAWKESBURY
PARISH OF HAM COMMON COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1051798

FIRST SCHEDULE

THE STATE OF NEW SOUTH WALES

SECOND SCHEDULE (18 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS (S.171 CROWN LANDS ACT 1989)
2 NOTIFICATION IN GOVERNMENT GAZETTE DATED 11.11.1983 FOLIO 5112 DEDICATING LAND FOR COLLEGE OF ADVANCED EDUCATION
3 NOTIFICATION IN GOVERNMENT GAZETTE DATED 25.5.1956, FOLIO 1455; EASEMENT FOR TRANSMISSION LINE 30.48 WIDE AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
O634689 EASEMENT VESTED IN PROSPECT ELECTRICITY
4 NOTIFICATION IN GOVERNMENT GAZETTE DATED 6.10.1961 FOLIO 3103 EASEMENT FOR WATER MAIN AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP234173 NOTIFICATION IN GOVERNMENT GAZETTE 27.10.1967 FOLIO 3917 EASEMENT FOR WATER MAIN AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 DP563779 NOTIFICATION IN GOVERNMENT GAZETTE 7.5.1976 FOLIO 1964 EASEMENT FOR RISING MAIN AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM
7 3361134 LAND IS SUBJECT TO THE PROVISIONS OF THE UNIVERSITY OF WESTERN SYDNEY ACT 1988 (AS AMENEDED 1989) IN PARTICULAR THE POWERS OF THE BOARD OF GOVERNERS OVER CERTAIN PROPERTY VESTED IN THE CROWN - SEE SEC 30A
8 DP1051798 EASEMENT TO DRAIN WATER 14.5 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
9 DP1051798 EASEMENT TO DRAIN SEWAGE 2 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
10 AC249568 FORESTRY RIGHT (TIMBER) TO ZOOLOGICAL PARKS BOARD OF NEW SOUTH WALES AFFECTING THE PART SHOWN AS LOT 10 IN PLAN WITH AC249568. EXPIRES 31/12/2015
11 AD464549 LEASE TO TELSTRA CORPORATION LIMITED OF THE PART SHOWN HATCHED IN PLAN WITH AD464549. COMMENCES:

END OF PAGE 1 - CONTINUED OVER

FOLIO: 2/1051798 PAGE 2

SECOND SCHEDULE (18 NOTIFICATIONS) (CONTINUED)

16/6/2010. EXPIRES: 15/6/2015.
AI55845 CONCURRENT LEASE AFFECTING THE AREA CROSS HATCHED IN PLAN WITH AI55845

12 AD464550 LEASE TO TELSTRA CORPORATION LIMITED OF THE PART SHOWN HATCHED IN PLAN WITH AD464550. COMMENCES: 16/6/2015. EXPIRES: 15/6/2020.
AI55845 CONCURRENT LEASE AFFECTING THE AREA CROSS HATCHED IN PLAN WITH AI55845
AI55846 CONCURRENT LEASE AFFECTING THE AREA CROSS HATCHED IN PLAN WITH AI55846

13 AD464551 LEASE TO TELSTRA CORPORATION LIMITED OF THE PART SHOWN HATCHED IN PLAN WITH AD464551. COMMENCES: 16/6/2020. EXPIRES: 15/6/2025.
AI55846 CONCURRENT LEASE AFFECTING THE AREA CROSS HATCHED IN PLAN WITH AI55846
AI55847 CONCURRENT LEASE AFFECTING THE AREA CROSS HATCHED IN PLAN WITH AI55847

14 AI55845 LEASE TO CROWN CASTLE AUSTRALIA PTY LTD OF THE AREA HATCHED IN PLAN WITH AI55845. EXPIRES: 14/2/2018.

15 AI55846 LEASE TO CROWN CASTLE AUSTRALIA PTY LTD OF THE AREA HATCHED IN PLAN WITH AI55846. COMMENCES 15/2/2018. EXPIRES: 14/2/2023.

16 AI55847 LEASE TO CROWN CASTLE AUSTRALIA PTY LTD OF THE AREA HATCHED IN PLAN WITH AI55847. COMMENCES 15/2/2023. EXPIRES: 14/2/2028.

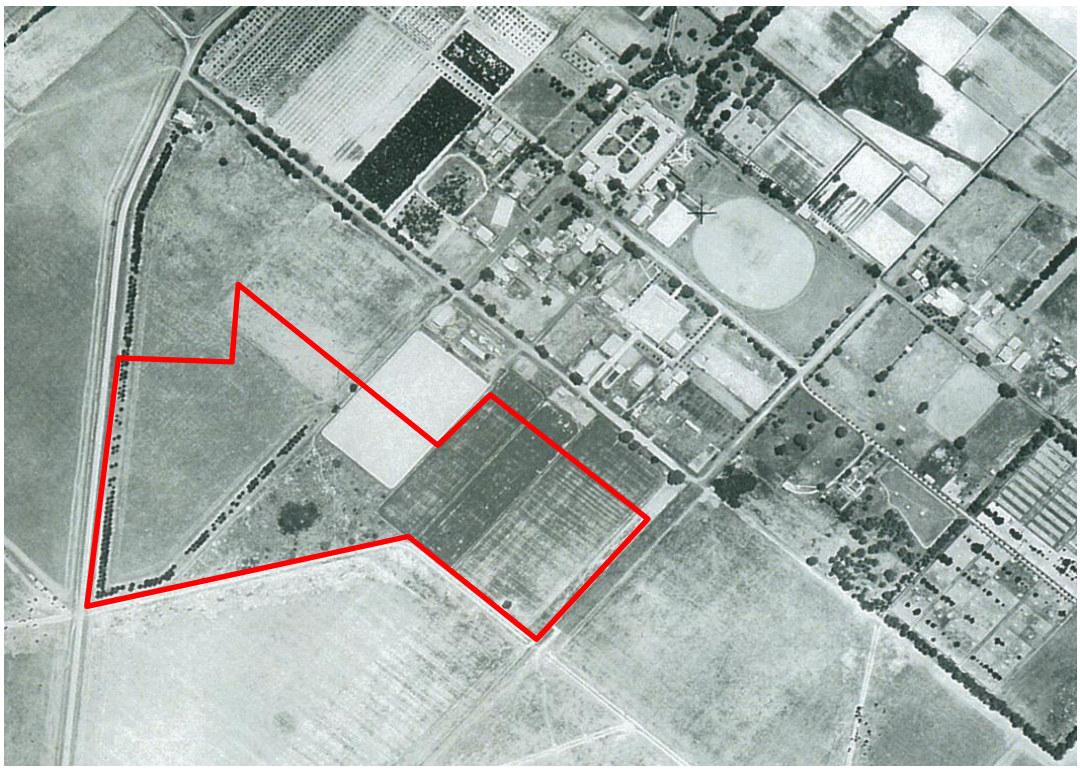
17 AI55848 LEASE TO CROWN CASTLE AUSTRALIA PTY LTD OF THE AREA HATCHED IN PLAN WITH AI55848. COMMENCES 15/2/2028. EXPIRES: 14/2/2033.

18 AI55849 LEASE TO CROWN CASTLE AUSTRALIA PTY LTD OF THE AREA HATCHED IN PLAN WITH AI55849. COMMENCES 15/2/2033. EXPIRES: 14/2/2034.

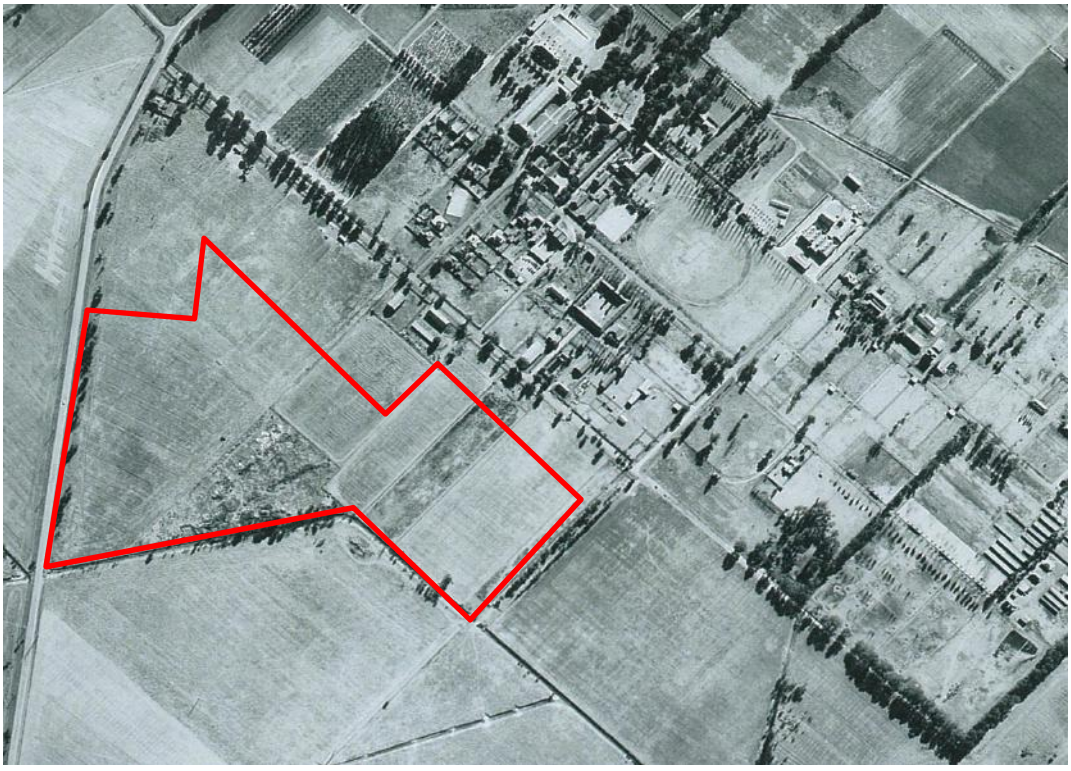
NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

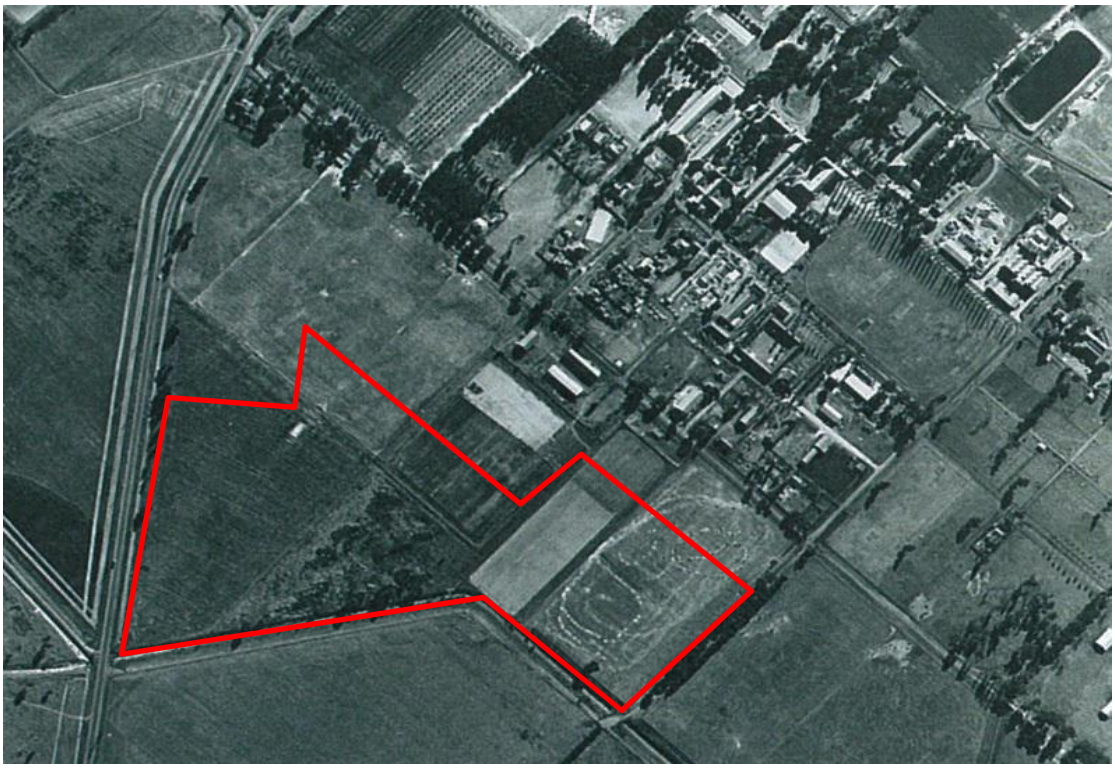


Aerial photograph from 1947



Aerial photograph from 1961

Douglas Partners Geotechnics / Environment / Groundwater	**Historical Aerial Photographs** **Hurlstone Ag. High School** **RICHMOND**	PROJECT: 85644.00 PLATE No: A1 REV: A
	CLIENT: NSW Dept. of Education	DATE: 14-Nov-16



Aerial photograph from 1970

Aerial photograph from 1982

Douglas Partners Geotechnics / Environment / Groundwater	**Historical Aerial Photographs** **Hurlstone Ag. High School** **RICHMOND**	PROJECT: 85644.00 PLATE No: A2 REV: A
	CLIENT: NSW Dept. of Education	DATE: 14-Nov-16

Aerial photograph from 1994

Aerial photograph from 1998

Douglas Partners Geotechnics / Environment / Groundwater	**Historical Aerial Photographs** **Hurlstone Ag. High School** **RICHMOND**	PROJECT: 85644.00 PLATE No: A3 REV: A
	CLIENT: NSW Dept. of Education	DATE: 14-Nov-16

Hawkesbury City Council

Planning Certificate

Issued under Section 149, Environmental Planning and Assessment Act, 1979, as amended

Douglas Partners Pty Ltd
96 Hermitage Road
WEST RYDE NSW 2114

Certificate Number	PC0744/17
Your Reference	85644.00
Date of Endorsement	24 October 2016

Location

Land Description Lot 2 DP 1051798, 2 College Street RICHMOND NSW 2753

The following information is only applicable as of the date of this certificate and is provided pursuant to Section 149 of the *Environmental Planning and Assessment Act 1979*, as prescribed by Schedule 4 of the *Environmental Planning and Assessment Regulation 2000*.

Information pursuant to Section 149(2) of the Act

1 Names of relevant planning instruments and Development Control Plans

1.1 The land is affected by the following environmental planning instruments:

Hawkesbury Local Environmental Plan 2012

Sydney Regional Environmental Plan No 9 - Extractive Industry (No 2 - 1995)

Identifies regionally significant extractive resources within the Sydney Region to facilitate their utilisation. The plan ensures extraction is carried out in an environmentally acceptable manner and prohibits extraction from certain environmentally sensitive areas. It ensures that decisions on future urban expansion take into account the ability to realise the full potential of important deposits.

Sydney Regional Environmental Plan No 20 - Hawkesbury Nepean River (No 2 - 1997)

SREP No 20 (No 2 - 1997) was gazetted on 6 November 1997, and is accompanied by the 'Hawkesbury-Nepean Action Plan 1997' and 'Codes of Practice for Consultation'.

The aim of *SREP No 20 (No 2 - 1997)* is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context.

SREP No 20 (No 2 - 1997) requires development consent for the purpose of caravan parks or camping grounds; composting facilities or works; buildings works or land uses within conservation area sub-catchments; remediation of contaminated land; filling; certain activities in relation to items of non-aboriginal heritage; intensive horticulture industries; some intensive animal industries; manufactured home estates; marinas; recreational facilities; land uses in or near the river; land uses in riverine scenic areas; sewerage systems or works.

Development for extractive industries is prohibited in some areas. Consent of Council and the concurrence of the Director-General is required for maintenance dredging and extractive operations carried out downstream of the Wallacia Bridge as a consequence of, and ancillary to, works for flood mitigation, bank stabilisation, the construction of bridges or other instream structures (such as marinas) or the licensed or unlicensed withdrawal of water where extraction is necessary to carry out the works. Some intensive animal industries and potentially hazardous or offensive industries are prohibited if carried out on a floodway. Development in mapped wetlands requires the consent of Council and the concurrence of the Director-General of Urban Affairs and Planning.

State Environmental Planning Policy No 19 - Bushland in Urban Areas

Protects and preserves bushland within certain urban areas, as part of the natural heritage or for recreation, educational and scientific purposes. The SEPP is designed to protect bushland in public open space zones and reservations, and to ensure that bush preservation is given a high priority when local environmental plans for urban development are prepared.

State Environmental Planning Policy No 21 - Caravan Parks

Ensures that where caravan parks or camping grounds are permitted under an environmental planning instrument, movable dwellings, as defined in the *Local Government Act 1993*, are also permitted. The specific kinds of movable dwellings allowed under the *Local Government Act* in caravan parks and camping grounds are subject to the provisions of the Caravan Parks Regulation. The SEPP ensures that development consent is required for new caravan parks and camping grounds and for additional long-term sites in existing caravan parks. It also enables, with the council's consent, long-term sites in caravan parks to be subdivided by leases of up to 20 years.

State Environmental Planning Policy No 30 - Intensive Agriculture

Requires development consent for cattle feedlots having a capacity of 50 or more cattle or piggeries having a capacity of 200 or more pigs. The SEPP sets out information and public notification requirements to ensure there are effective planning control over this export-driven rural industry. The SEPP does not alter if, and where, such development is permitted, or the functions of the consent authority.

State Environmental Planning Policy No 33 - Hazardous and Offensive Development

Provides definitions for 'hazardous industry', 'hazardous storage establishment', 'offensive industry' and 'offensive storage establishment'. The definitions apply to all planning instruments, existing and future. The definitions enable decisions to approve or refuse a development to be based on the merit of proposal. The consent authority must carefully consider the specifics of the case, the location and the way in which the proposed activity is to be carried out. The SEPP also requires specified matters to be considered for proposals that are 'potentially hazardous' or 'potentially offensive' as defined in the SEPP. For example, any application to carry out a potentially hazardous or potentially offensive development is to be advertised for public comment, and applications to carry out potentially hazardous development must be supported by a preliminary hazard analysis (PHA). The SEPP does not change the role of councils as consent authorities, land zoning, or the designated development provisions of the *Environmental Planning and Assessment Act 1979*.

State Environmental Planning Policy No 44 - Koala Habitat Protection

Encourages the conservation and management of natural vegetation areas that provide habitat for koalas to ensure permanent free-living populations will be maintained over their present range. Local councils cannot approve development in an area affected by the SEPP without an investigation of core koala habitat. The SEPP provides the state-wide approach needed to enable appropriate development to continue, while ensuring there is ongoing protection of koalas and their habitat.

State Environmental Planning Policy No 50 - Canal Estate Development

Bans new canal estates from the date of gazettal, to ensure coastal and aquatic environments are not affected by these developments.

State Environmental Planning Policy No 55 - Remediation of Land

Introduces state-wide planning controls for the remediation of contaminated land. The SEPP states that land must not be developed if it is unsuitable for a proposed use because it is contaminated. If the land is unsuitable, remediation must take place before the land is developed. The SEPP makes remediation permissible across the State, defines when consent is required, requires all remediation to comply with standards, ensures land is investigated if contamination is suspected, and requires councils to be notified of all remediation proposals.

State Environmental Planning Policy No 62 - Sustainable Aquaculture

Encourages the sustainable expansion of the industry in NSW. The SEPP implements the regional strategies already developed by creating a simple approach to identify and categorise aquaculture development on the basis of its potential environmental impact. The SEPP also identifies aquaculture development as a designated development only where there are potential environmental risks.

State Environmental Planning Policy No 64 - Advertising and Signage

Aims to ensure that outdoor advertising is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations and is of high quality design and finish.

State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development

Raises the design quality of residential flat development across the state through the application of a series of design principles. Provides for the establishment of Design Review Panels to provide independent expert advice to councils on the merit of residential flat development.

State Environmental Planning Policy No 70 - Affordable Housing (Revised Schemes)

Extends the life of affordable housing provisions relating to: *Sydney Regional Environmental Plan No. 26 - City West*, *Willoughby Local Environmental Plan 1995* and *South Sydney Local Environmental Plan 1998*. Schemes such as these are helping to provide affordable housing in areas undergoing significant redevelopment.

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

This SEPP operates in conjunction with *Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004* to ensure the effective introduction of BASIX in NSW. The SEPP ensures consistency in the implementation of BASIX throughout the State by overriding competing provisions in other environmental planning instruments and development control plans, and specifying that SEPP 1 does not apply in relation to any development standard arising under BASIX.

State Environmental Planning Policy (State Significant Precincts) 2005

Defines certain developments that are major projects under Part 3A of the *Environmental Planning & Assessment Act 1979* and determined by the Minister for Planning. The SEPP also lists State significant precincts.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

The SEPP aims to provide for the proper management and development of mining, petroleum and extractive material resources for the social and economic welfare of the State. The SEPP establishes appropriate planning controls to encourage ecologically sustainable development.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007

Provides for the erection of temporary structures. The SEPP supports the transfer temporary structures (such as tents, marquees and booths) from the *Local Government Act 1993* to the *Environmental Planning and Assessment Act 1979.*

State Environmental Planning Policy (Repeal of Concurrence and Referral Provisions) 2004

Amends various environmental planning instruments so as to omit provisions requiring consent authorities to obtain certain concurrences or refer matter to various persons or bodies.

State Environmental Planning Policy (State and Regional Development) 2011

The aims of this SEPP are to identify development that is State significant development, to identify development that is State significant infrastructure and critical State significant infrastructure, to confer functions on joint regional planning panels to determine development applications.

State Environmental Planning Policy (Repeal of Concurrence and Referral Provisions) 2008

Removes duplicative or unnecessary requirements in environmental planning instruments which require concurrence from or referral to government agencies.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

Aims to provide streamlined assessment processes for development that complies with specified development standards.

State Environmental Planning Policy (Affordable Rental Housing) 2009

Aims to provide a consistent planning regime for the retention and provision of affordable rental housing.

State Environmental Planning Policy (Infrastructure) 2007

Provides a consistent planning regime for infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process. The SEPP supports greater flexibility in the location of infrastructure and service facilities along with improved regulatory certainty and efficiency.

State Environmental Planning Policy (Integration and Repeals) 2016

This SEPP repealed a number of SEPPs and deemed SEPPs including State Environmental Planning Policy No 32-Urban Consolidation (Redevelopment of Urban Land) and Sydney Regional Environmental Plan No 19-Rouse Hill Development Area.

The land may be affected by the following environmental planning instrument:

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

Encourage the development of high quality accommodation for our aging population and for people who have disabilities - housing that is in keeping with the local neighbourhood.

1.2 The land is affected by the following proposed environmental planning instruments that are or have been the subject of community consultation or on public exhibition under the *Environmental Planning and Assessment Act 1979* (excludes instruments where Council has been notified that the making of the proposed instrument has been deferred indefinitely or has not been approved):

Draft State Environmental Planning Policy - Integrating Land Use and Transport

Draft State Environmental Planning Policy (Application of Development Standards) 2004

Draft State Environmental Planning Policy (Competition) 2010

Draft State Environmental Planning Policy (Infrastructure) Amendment (Shooting Ranges) 2016

1.3 The land is affected by the following Development Control Plans:

Hawkesbury Development Control Plan 2002

Note: In this section a proposed environmental planning instrument includes a planning proposal for a LEP or a draft environmental planning instrument.

2 Zoning and land use under relevant Local Environmental Plans

2.1 The land is zoned:

SP1 Special Activities under *Hawkesbury Local Environmental Plan 2012*.

2.2 Under the provisions of *Hawkesbury Local Environmental Plan 2012* the purposes for which development may be carried out within the zone without development consent are referred to in the Land Use Table Annexure.

2.3 Under the provisions of *Hawkesbury Local Environmental Plan 2012* the purposes for which development may not be carried out within the zone except with development consent are referred to in the Land Use Table Annexure.

2.4 Under the provisions of *Hawkesbury Local Environmental Plan 2012* the purposes for which the carrying out of development is prohibited within the zone are referred to in the Land Use Table Annexure.

The following special provisions of *Hawkesbury Local Environmental Plan 2012* may apply to the subject land:

- Clause 2.5 Additional permitted uses for particular land.
- Clause 2.6 Subdivision – consent requirements.
- Clause 2.7 Demolition requires development consent.
- Clause 2.8 Temporary use of land.
- Part 3 Exempt and complying development.
- Clause 4.2 Rural subdivision.
- Clause 4.2A Residential development and subdivision prohibited on certain land.
- Clause 5.1 Relevant acquisition authority.
- Clause 5.1A Development on land intended to be acquired for public purposes.
- Clause 5.3 Development near zone boundaries.
- Clause 5.7 Development below mean high water mark.
- Clause 5.8 Conversion of fire alarms.
- Clause 5.9 Preservation of trees or vegetation.
- Clause 5.9AA Trees or vegetation not prescribed by development control plan.
- Clause 5.10 Heritage conservation.
- Clause 5.11 Bush fire hazard reduction.
- Clause 5.12 Infrastructure development and use of existing buildings of the Crown.
- Clause 6.1 Acid sulfate soils.
- Clause 6.2 Earthworks.
- Clause 6.11 Residential accommodation at Johnston and New Streets, Windsor.

These special provisions may alter the development shown in the Land Use Table which may be carried out with or without development consent and prohibited land uses. Please refer to the above mentioned provisions of *Hawkesbury Local Environmental Plan 2012* to determine applicability.

2.5 Has Council adopted a development standard relating to a minimum dimension of land to permit the erection of a dwelling house on the land?

No.

2.6 Does the land include or comprise critical habitat?

No.

2.7 Is the land in a conservation area under *Hawkesbury Local Environmental Plan 2012* or a proposed instrument referred to in section 1 of this certificate (other than a SEPP or proposed SEPP)?

No.

2.8 Is an item of environmental heritage under *Hawkesbury Local Environmental Plan 2012* or a proposed instrument referred to in section 1 of this certificate (other than a SEPP or proposed SEPP) situated on the land?

Yes.

Note: The land may also be subject to a proposed environmental planning instrument (see section 1.2 of this certificate) that may change the information given in this section of the certificate.

3 Complying Development 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.

3.1 General Housing Code.

Can complying development under the General Housing Code be carried out on the subject land?

No, because:

- The land is reserved for a public purpose under *Hawkesbury Local Environmental Plan 2012.*

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

  Note: If development meets the requirements and standards specified by this Policy and that development:

  a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

  b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

3.2 Housing Alterations Code.

Can complying development under the Housing Alterations Code be carried out on the subject land?

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

  Note: If development meets the requirements and standards specified by this Policy and that development:

  a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

  b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

3.3 Commercial and Industrial Alterations Code.

Can complying development under the Commercial and Industrial Alterations Code be carried out on the subject land?

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

  Note: If development meets the requirements and standards specified by this Policy and that development

  a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

  b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

3.4 Subdivisions Code.

Can complying development under the Subdivisions Code be carried out on the subject land?

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

  Note: If development meets the requirements and standards specified by this Policy and that development:

  a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

  b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

3.5 Rural Housing Code.

Can complying development under the Rural Housing Code be carried out on the subject land?

No, because:

- The land is reserved for a public purpose under *Hawkesbury Local Environmental Plan 2012.*

3.6 General Development Code.

Can complying development under the General Development Code be carried out on the subject land?

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

  Note: If development meets the requirements and standards specified by this Policy and that development:

  a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

3.7 Demolition Code.

Can complying development under the Demolition Code be carried out on the subject land?

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

Note: If development meets the requirements and standards specified by this Policy and that development:

a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

3.8 Commercial and Industrial (New Buildings and Additions) Code.

Can complying development under the Commercial and Industrial (New Buildings and Additions) Code be carried out on the subject land?

No, because:

- The land is reserved for a public purpose under *Hawkesbury Local Environmental Plan 2012.*

In part. Complying development cannot be carried out on that part of the land that:

- Comprises or contains a heritage item or draft heritage item.

Note: If development meets the requirements and standards specified by this Policy and that development:

a) Has been granted an exemption under section 57(2) of the *Heritage Act 1977*, or

b) Is subject to an exemption under section 57(1A) or (3) of that Act, the development is complying development under this Policy.

4 Coastal Protection

Has Council been notified by the relevant State Government department that the land is affected by the operation of Section 38 or 39 of the *Coastal Protection Act 1979*?

No.

4A Certain information relating to beaches and coasts

1 Has an order 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)?

No.

2 (a) Has Council 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)?

No.

2 (b) Is Council satisfied that the works have been removed and the land restored in accordance with the *Coastal Protection Act 1979*?

Not Applicable.

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

Has the owner (or any previous owner) of the land 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 *Local Government Act 1993*)?

No.

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

5 Mine Subsidence

Is the subject land within a mine subsidence district within the meaning of Section 15 of the *Mine Subsidence Compensation Act 1961*?

No.

6 Road widening and road realignment

Is the land affected by road widening or road re-alignment under Division 2 of Part 3 of the *Roads Act 1993*, or any environmental planning instruments, or any resolution of Council?

No.

7 Council and other public authority policies on hazard risk restrictions

Has Council adopted a policy or has any other public authority notified Council for the purpose of planning certificates of a policy that restricts the development of the land because of the likelihood of:

a) Landslip.

No.

b) Bushfire risk.

No.

c) Tidal inundation.

No.

d) Subsidence.

No.

e) Acid sulphate soils.

Yes.

f) Any other risk (other than flooding)?

No.

7A Flood Related Development Controls Information

a) Is the land or part of the land subject to flood related development controls for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing)?

The land is subject to riverine flood related development controls.

b) Is the land or part of the land subject to flood related development controls for any other purpose not included in a) above?

The land is subject to riverine flood related development controls.

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

The above responses are provided in relation to the flood related development controls of *Hawkesbury Local Environmental Plan 2012*. Some State or Regional planning instruments may contain flood related development controls which affect the land. These include, but are not necessarily restricted to, *State Environmental Planning Policy (Exempt and Complying Development Code) 2008*, *State Environmental Planning Policy No 30 - Intensive Agriculture, State Environmental Planning Policy (Infrastructure) 2007*, *State Environmental Planning Policy No 62 - Sustainable Aquaculture, SEPP (Sydney Regional Growth Centre) 2006*, *Sydney Regional Environmental No 9 – Extractive Industry (No 2 – 1995)*, and *Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No 2 – 1997)*.

8. Land Reserved for Acquisition

Is the land affected by any environmental planning instrument, or proposed environmental planning instrument referred to in section 1 of this certificate, which makes provision for the acquisition of the land by a public authority, as referred to in Section 27 of the *Environmental Planning and Assessment Act 1979*?

No.

9 Contributions Plans

The *Hawkesbury Section 94 Contributions Plan 2015* applies to the subject land.

The *Hawkesbury Section 94A Contributions Plan 2015* applies to the subject land.

9A Biodiversity certified land

Is the land biodiversity certified land (within the meaning of the Part 7AA of the *Threatened Species Conservation Act 1995*)?

No.

10 Biobanking Agreements

Has Council been notified that the land is subject to a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995*?

No.

11 Bush fire prone land

Is the land bush fire prone land (as defined by the *Environmental Planning and Assessment Act 1979)*?

Some of the land is bush fire prone.

12 Property Vegetation Plans

Has Council been notified that the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies?

No.

13 Orders under *Trees (Disputes Between Neighbours) Act 2006*

Has Council been notified 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?

No.

14 Directions under Part 3A

Is the land subject to an in force direction under Section 75P(2)(c1) of the *Environmental Planning and Assessment Act 1979*?

No.

15 Site compatibility certificates and conditions for seniors housing

15.1 Is the land subject to a current site compatibility certificate (seniors housing), of which Council is aware, issued under *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*?

No.

15.2 Has Council granted a development consent after 11 October 2007 in respect of the land, setting out any terms of a kind referred to in clause 18(2) of the *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*?

No.

16 Site compatibility certificates for infrastructure

Is the land subject to a valid site compatibility certificate (infrastructure), of which Council is aware?

No.

17 Site compatibility certificates and conditions for affordable rental housing

17.1 Is the land subject to a current site compatibility certificate (affordable rental housing), of which Council is aware?

No.

17.2 Is the land subject to 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?

No.

18 Paper subdivision information

18.1 Is the land subject to a development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot?

No.

18.2 Is the land subject to a subdivision order?

No.

Note: Words and expressions used in this section have the same meaning as they have in Part 16C of the *Environmental Planning and Assessment Regulation 2000*.

19 Site verification certificates for biophysical strategic agricultural lands

Is the land subject to a current site verification certificate (biophysical strategic agricultural land), of which Council is aware?

No.

Note: A site verification certificate sets out the relevant State Government department Secretary'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*.

20 Loose-fill asbestos insulation

Does the land contain any residential premises that is listed on the Loose-Fill Asbestos Insulation Register (within the meaning of Division 1A of Part 8 of the *Home Building Act 1989)*?

No.

Additional Matters

Certain prescribed matters under Section 59(2) of the *Contaminated Land Management Act 1997 (CLMA1997)*.

a) Is the land significantly contaminated land within the meaning of the CLMA 1997?

No.

b) Is the land subject to a management order within the meaning of the CLMA 1997?

No.

c) Is the land subject to an approved voluntary management proposal within the meaning of the CLMA 1997?

No.

d) Is the land subject to an ongoing maintenance order within the meaning of the CLMA 1997?

No.

e) Is the land subject to a site audit statement within the meaning of the CLMA 1997?

No.

Enquiries

For any enquiries please contact Customer Service on (02) 4560 4444.

Authorised Officer

Hawkesbury City Council

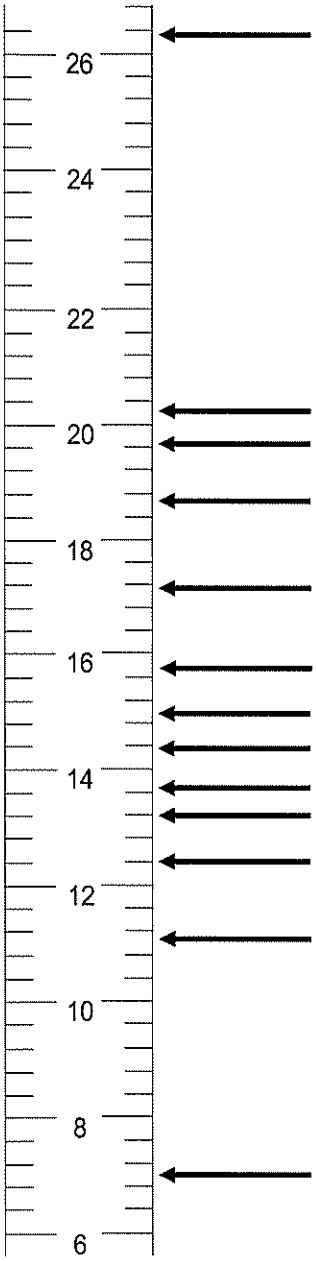
366 George Street (PO Box 146) Windsor NSW 2756 DX 8601 WINDSOR
Phone: (02) 4560 4444 **Facsimile:** (02) 4587 7740 **Email:** council@hawkesbury.nsw.gov.au

Flood Awareness - City of Hawkesbury

Windsor

Please note that there is a risk of flooding above Council's residential floor height control. The table below indicates levels to Australian Height Datum (above sea level) for estimated flooding probabilities and historical flood peaks.

Flood chance of occurrence per year and historical floods



26.4m	1 in 100,000 chance per year (Probable Maximum Flood)
20.2m	1 in 500 chance per year
19.7m	June 1867 flood peak
18.7m	1 in 200 chance per year
17.3m	1 in 100 chance per year - Residential Floor Standard
15.7m	1 in 50 chance per year
14.95m	November 1961 flood peak
14.46m	March 1978 flood peak
13.7m	1 in 20 chance per year
13.5m	August 1990 flood peak
12.3m	1 in 10 chance per year
11.1m	1 in 5 chance per year
7.0m	Level of Windsor Bridge

Please Note: Figures are average estimated occurances

Flood heights obtained from *Engineering Studies to Modify Flood Behaviour*, September 1997, prepared by Webb, McKeown & Associates Pty Ltd for the Hawkesbury-Nepean Floodplain Management Strategy Steering Committee. Flood heights reproduced in Table: 2.3 Design Flood Levels of the Hawkesbury *Floodplain Risk Management Study and Plan*, December 2012, prepared by Bewsher Consulting Pty Ltd for Hawkesbury City Council.

Hawkesbury City Council

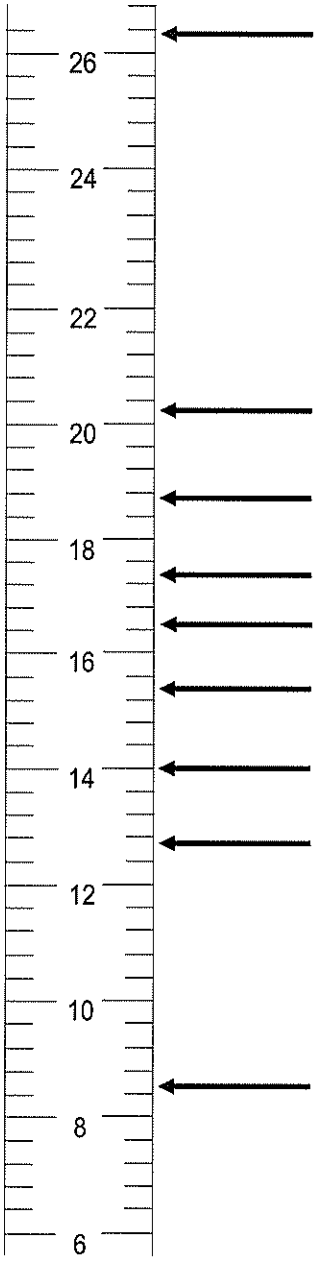
366 George Street (PO Box 146) Windsor NSW 2756 DX 8601 WINDSOR
Phone: (02) 4560 4444 **Facsimile:** (02) 4587 7740 **Email:** council@hawkesbury.nsw.gov.au

Flood Awareness - City of Hawkesbury

North Richmond

Please note that there is a risk of flooding above Council's residential floor height control. The table below indicates levels to Australian Height Datum (above sea level) for estimated flooding probabilities and historical flood peaks.

Flood chance of occurrence per year and historical floods



26.5m	1 in 100,000 chance per year (Probable Maximum Flood)
20.4m	1 in 500 chance per year
18.9m	1 in 200 chance per year
17.5m	1 in 100 chance per year - Residential Floor Standard
16.4m	1 in 50 chance per year
15.3m	1 in 20 chance per year
14.0m	1 in 10 chance per year
12.5m	1 in 5 chance per year

Please Note: Figures are average estimated occurances

8.4m	Level of North Richmond Bridge

Flood heights obtained from *Engineering Studies to Modify Flood Behaviour*, September 1997, prepared by Webb, McKeown & Associates Pty Ltd for the Hawkesbury-Nepean Floodplain Management Strategy Steering Committee. Flood heights reproduced in Table: 2.3 Design Flood Levels of the Hawkesbury *Floodplain Risk Management Study and Plan*, December 2012, prepared by Bewsher Consulting Pty Ltd for Hawkesbury City Council.

Appendix D

Sampling and Analysis Quality Plan

Douglas Partners Pty Ltd
ABN 75 053 980 117
www.douglaspartners.com.au
96 Hermitage Road
West Ryde NSW 2114
PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666
Fax (02) 9809 4095

85644.04.M.001.Rev0
10 January 2018
PMO

NSW Department of Education
c/- Taylor Thomson Whitting
48 Chandos Street
ST LEONARDS NSW 2065

Attention: Mr Bevan Botha

Dear Sirs

Sampling and Analysis Quality Plan
Hurlstone Agricultural High School (Hawkesbury)
Londonderry Road, Richmond

1. Introduction

This Sampling and Analysis Quality Plan (SAQP) has been prepared for a proposed Detailed Site Investigation (Contamination) at the future site of Hurlstone Agricultural High School (Hawkesbury), off Londonderry Road, Richmond. The work was commissioned by Conrad Gargett Pty Ltd, architects.

The project involves the construction of a new high school on land that was formerly part of the Western Sydney University (Richmond) campus. Detailed Site Investigation is required to confirm that the site is suitable for the new development or to delineate any areas on the site which may require remediation prior to or during the development works. The investigation aims to build on the Preliminary Site Investigation (PSI) undertaken for the site by Douglas Partners (Ref. 85644.00.R.003.Rev0 dated 14 November 2016).

The scope of the Detailed Site Investigation has been prepared with reference to the National Environment Protection Measure (NEPM) guidelines.

2. Purpose of Detailed Site Investigation

A Detailed Site Investigation was commissioned to aid in the management of contamination risks associated with the site. Previous assessments have indicated the potential for contaminants within filling, and confirmation of the contaminant characteristics of the development site is now required.

The proposed investigation components of the Detailed Site Investigation are described in the following sections.

3. Summary of Preliminary Conceptual Site Model

The site history information indicates that the site has been used for agricultural teaching purposes since the late 19th Century. Activities of a rural nature have therefore been undertaken on the site for at least the last 120 years.

Potentially contaminating activities that may have occurred on the site include:

- The placement of filling on the site;
- Contaminants associated with farming/grazing (e.g. pesticides);
- The placement of waste and/or incinerator ash which was prevalent in rural areas throughout the 20th Century; and
- Naturally occurring elements in the soils and rock underlying the site (e.g. heavy metals).

The regional groundwater table is likely to relatively shallow. Significant excavation is not proposed and the use of groundwater within the development will only be undertaken (if at all) following approvals for groundwater extraction. The quality of the groundwater from a land-use perspective will therefore only be of significance if volatile contaminants are present.

Soil vapour intrusion and/or ground gas will only need to be considered if significant concentrations of volatile organic compounds are encountered on the site.

The human receptors to soil contamination are likely to be the teachers, students, support staff and visitors to the redeveloped site. Construction personnel, nearby workers/students/residents and the general public may also be receptors during the construction phase of the redevelopment project.

The ecological receptors are likely to be limited to the flora and fauna that grow/live on the adjacent sites as well as farmed animals. The area is not known to be ecologically significant.

Exposure pathways are expected to be limited to dermal contact with soils on the site by humans, ingestion of soils and vegetation by fauna, and phytotoxic exposure to flora.

4. Data Quality Objectives

This SAQP has been devised in general accordance with the seven-step data quality objective (DQO) process outlined in Australian Standard AS 4482.1 – 2005 *Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds*. The DQO process is outlined below.

(a) State The Problem

The site is to be redeveloped into a secondary school facility. Detailed Site Investigation is required to assess the risks associated with redeveloping the site so that appropriate allowances and remediation measures can be provided as part of the works, if necessary.

(b) Identify the Decision

A small area in the centre of the site is known to be underlain by uncontrolled filling. No other known areas of contamination have been identified. As such, a grid-based approach to sampling will be adopted.

Figure 1: Approximate location of site with respect to current lot boundaries

The site is currently part of Lot 2 in DP 1051798.

The site area is approximately 12.2 ha. A sampling frequency of 135 sampling points is considered appropriate based on Table A of *Contaminated Sites: Sampling Design Guidelines* (NSW EPA, 1995).

This frequency should be able to detect a contamination hot spot of 35.6 m diameter with 95% confidence.

Further information on the proposed sampling locations and suite of potential contaminants to be analysed is included in Sections 5 to 7 of this SAQP.

(c) Identify Inputs to the Decision

The primary inputs in assessing the presence of contamination on the site will be:

- The information available from previous investigations;
- Field observations;
- Laboratory test results; and
- Published guidelines appropriate for the proposed land use (secondary school) and ecological conditions.

(d) Define the Boundary of the Assessment

The boundary of the assessment is shown in Figure 1.

(e) Develop a Decision Rule

The decision rule is based on the following documents:

- NSW EPA (1995); *Contaminated Sites: Sampling Design Guidelines*; and
- NEPC (2013), *National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater*. The site is assumed to be a 'HIL A' site for the health-based components of the assessment due to the agricultural activities that will be undertaken at the school. The site categories for the ecological-based components will be determined during the assessment (i.e. determined from soil types, and assumed pH and cation exchange capacities of the soils encountered).

(f) Specify Acceptable Limits on Decision Errors

Appropriate quality assurance and quality control measures will be incorporated into the sampling and testing regime to ensure the quality of the assessment data. These measures are outlined in Section 8 of this SAQP.

(g) Optimise the Design for Obtaining Data

The soil sampling locations have been selected using a grid-based approach to achieve adequate site coverage. Samples will be collected from different depths in the boreholes and samples will be selected for analysis to ensure a spread of depths are analysed, where relevant.

Groundwater wells will be installed in six locations to enable up-gradient and down-gradient samples to be collected.

The procedures for collecting samples will be in general accordance with NEPM, EPA guidelines and/or industry best-practice. Only laboratories accredited by the National Association of Testing Authorities (NATA) will be used to analyse samples.

5. Proposed Sampling Locations

The proposed sampling points are shown on the attached Drawing C1. The 130 proposed sampling points will complement the five locations previously assessed.

6. Proposed Sampling Methodology

Soil samples will be collected at regular depth intervals until natural soils are encountered or the rig refuses. Environmental sampling will be performed in general accordance with the standard procedures outlined in the *Douglas Partners Field Procedures Manual*. All sampling data will be recorded on chain of custody information sheets. The soil sampling programme will generally include:

- Soil sampling using disposable equipment and/or equipment that has been decontaminated using a phosphate-free detergent;
- Placement of soil samples into laboratory prepared jars and immediate capping;
- Labelling of soil sample jars/bags with individual and unique markings including project number, sample location, sample depth and date of sampling; and
- Storage of soil sample jars in a cooled, insulated and sealed container for transport to the laboratory.

The groundwater sampling programme will generally include:

- Water sampling using equipment that has been decontaminated using a phosphate-free detergent;
- Placement of water samples into laboratory prepared bottles with appropriate preservatives (where required) and immediate capping;
- Labelling of water sample bottles with individual and unique markings including project number, sample location and date of sampling; and
- Storage of water sample bottles in a cooled, insulated and sealed container for transport to the laboratory.

In addition, a laboratory prepared blank sample and spiked sample will be collected and carried throughout the field work to provide an indication of the potential loss of volatile hydrocarbons and to assess the adequacy of the sample handling and storage methods adopted for the assessment. Rinsate samples will also be collected by rinsing decontaminated soil sampling equipment with demineralised water to assess the effectiveness of the decontamination process.

7. Proposed Laboratory Testing Programme

Selected soil samples collected during the field work will be sent to NATA accredited analytical laboratories and analysed for the following potential contaminants:

- Priority heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni and Zn);
- Total recoverable hydrocarbons (TRH);
- Monocyclic aromatic hydrocarbons (BTEX);
- Polycyclic aromatic hydrocarbons (PAH);
- Organochlorine pesticides (OCP);
- Organophosphorus pesticides (OPP);
- Polychlorinated biphenyls (PCB);
- Phenols; and
- Asbestos.

The number of samples tested will depend on the subsurface conditions encountered during the field work.

The water samples will also be tested for the contaminants listed above (excluding asbestos), plus volatile organic compounds (VOC) and the PFAS chemicals.

8. Quality Assurance Plan

8.1 Quality assurance & quality control in the field

Douglas Partners' quality assurance (QA) and quality control (QC) procedures will be adopted throughout the field sampling programme to ensure sampling precision and accuracy and to prevent cross-contamination. We will check sampling accuracy and precision through the analysis of triplicate samples in the primary analytical laboratory and a secondary analytical laboratory. The potential for cross-contamination and loss of volatile compounds will be assessed using trip blank and trip spike samples.

Appropriate sampling procedures will be undertaken to ensure that cross-contamination does not occur as outlined in the *Douglas Partners Field Procedures Manual*. This specifies that:

- Standard operating procedures are to be followed;
- Site safety plans are to be developed prior to commencing the works;
- Triplicate field samples are to be collected and analysed;
- Samples are to be stored under secure, temperature-controlled conditions;
- Chain of custody documentation is to be employed for the handling, transport and delivery of samples to the selected laboratory; and
- Contaminated filling, soil and groundwater originating from the site is to be disposed of in accordance with relevant regulatory guidelines.

8.2 Quality assurance & quality control in the laboratory

The analytical laboratories used during the assessment will conduct in-house QA/QC procedures including:

- Analysis of reagent blanks;
- Spike recovery analysis;
- Laboratory duplicate analysis;
- Analysis of control standards;
- Analysis of calibration standards and blanks; and
- Statistical analysis of QC data.

8.3 Data quality indicators

The following data quality indicators (DQIs) will need to be achieved during the analysis of QA/QC samples:

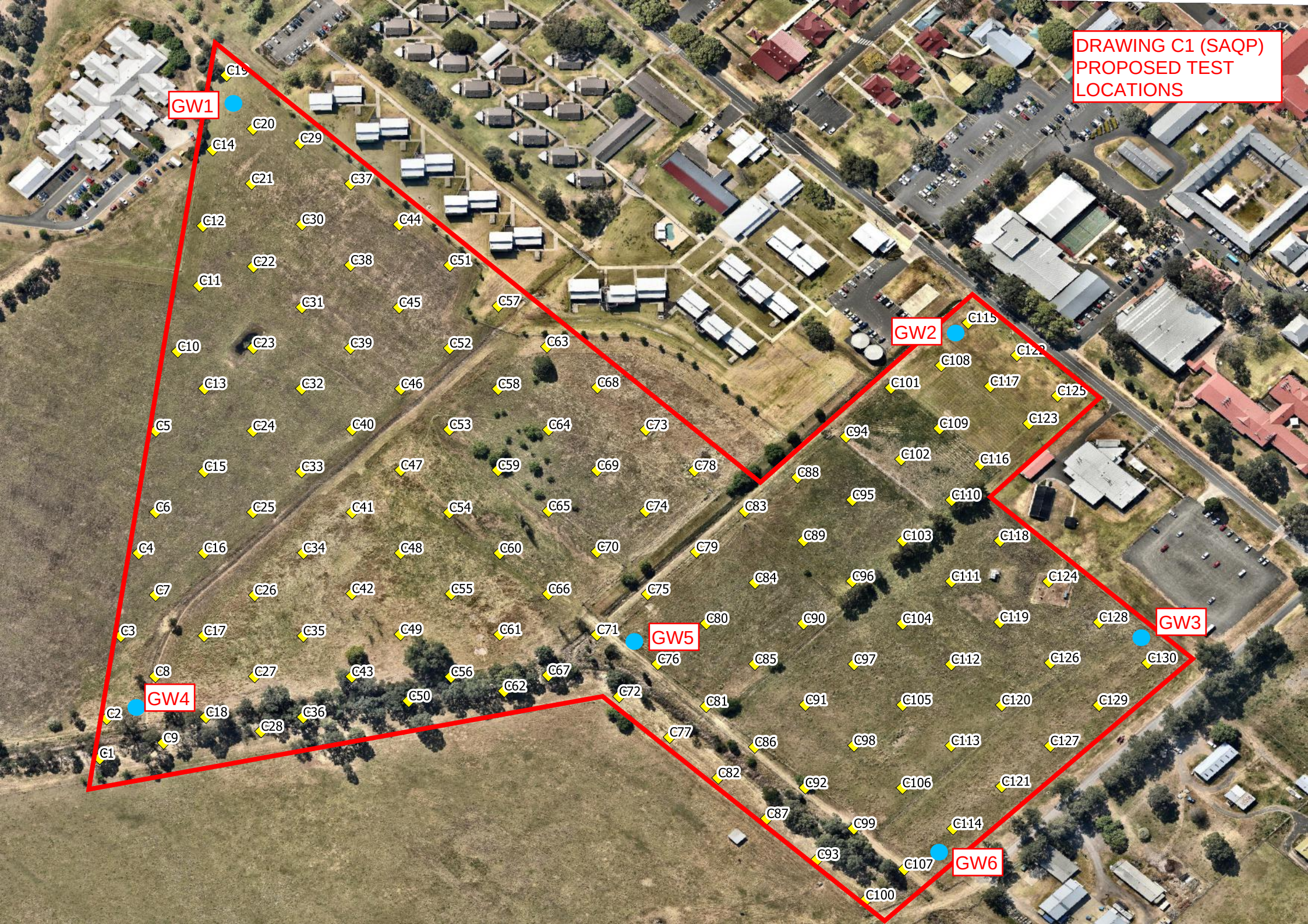
- Conformance with specified holding times;
- Accuracy of spiked samples to generally be in the range of 70% to 130%;
- Field triplicate samples to be collected at a frequency of at least 10% of all samples; and
- Field and laboratory duplicate samples to have a precision average within a 30% relative percent difference (RPD) unless circumstances allow a greater range.

Please contact the undersigned if further information is required.

Yours faithfully,
Douglas Partners Pty Ltd

Peter Oitmaa
Principal

Attachment: Drawing C1


DRAWING C1 (SAQP)
PROPOSED TEST LOCATIONS
GW1
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GW3
GW4
GW5
GW6
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C2
C3
C4
C5
C6
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C130

Appendix E

Field Work Results

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290572
NORTHING: 6277977

PIT No: C1
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine grained silty sand, dry		D	0.0				
	0.3	SILTY SAND - light grey brown fine to medium grained silty sand, dry		D	0.4				
	0.5	SILTY SAND - light brown and yellow fine to medium grained silty sand, humid to moist		D	0.9				
22	1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
21	2								
20	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290575
NORTHING: 6278001

PIT No: C2
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0				
		SILTY SAND - very light grey brown fine to medium grained silty sand, humid			0.05				
					0.4				
	0.5			D	0.5				
		Pit discontinued at 0.5m - limit of investigation							
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290581
NORTHING: 6278051

PIT No: C3
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				5 10 15 20
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290589
NORTHING: 6278101

PIT No: C4
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD26/290118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290596
NORTHING: 6278175

PIT No: C5
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid to moist		D*	0.0				
		SILTY SAND - very light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD25/250118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290597
NORTHING: 6278126

PIT No: C6
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290598
NORTHING: 6278076

PIT No: C7
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				5 10 15 20
		SILTY SAND - very light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 290599
NORTHING: 6278027

PIT No: C8
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, dry		D	0.0				
		SAND - very light grey and orange fine to medium grained sand			0.1				
				D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD6/180118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290604
NORTHING: 6277987

PIT No: C9
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0 - 0.1				
	0.2	SILTY SAND - light grey brown fine to medium grained silty sand, dry		D	0.4 - 0.5				
	0.8	Pit discontinued at 0.8m - limit of investigation							
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290606
NORTHING: 6278223

PIT No: C10
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290616
NORTHING: 6278263

PIT No: C11
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, dry to humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290617
NORTHING: 6278299

PIT No: C12
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, humid		D*	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD23/250118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290620
NORTHING: 6278201

PIT No: C13
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290621
NORTHING: 6278345

PIT No: C14
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid to moist			0.05				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290621
NORTHING: 6278151

PIT No: C15
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290622
NORTHING: 6278102

PIT No: C16
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				5 10 15 20
		SILTY SAND - light grey brown fine to medium grained silty sand, humid to moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290623
NORTHING: 6278052

PIT No: C17
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0				
	0.1				0.1				
	0.2	SILTY SAND - light grey fine to medium grained silty sand, dry							
	0.4			D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290625
NORTHING: 6278003

PIT No: C18
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - brown fine grained silty sand with a trace of rootlets, dry		D	0.0				
	0.1				0.1				
	0.2	SILTY SAND - light grey brown fine to medium grained silty sand, dry							
		- becoming orange mottled grey clayey sand		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.6 mAHD
EASTING: 290627
NORTHING: 6278390

PIT No: C19
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0								
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light yellow brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
23	1								1
22	2								2
21	3								3
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD17/230118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290641
NORTHING: 6278358

PIT No: C20
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
	0.5	Pit discontinued at 0.5m - limit of investigation							
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290641
NORTHING: 6278325

PIT No: C21
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				5 10 15 20
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290643
NORTHING: 6278275

PIT No: C22
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.5 mAHD
EASTING: 290644
NORTHING: 6278226

PIT No: C23
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.01	TOPSOIL - brown fine grained silty sand with some rootlets, dry		D	0.0				
					0.01				
		SILTY SAND - brown and very light grey silty sand with some clay, dry		D	0.1				
	0.3				0.2				
		SILTY SAND - yellow brown fine to medium grained silty sand, slightly clayey, humid		D	0.4				
22	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
21									
	2								2
20									
	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Test pit excavated in dry pond/dam

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290645
NORTHING: 6278176

PIT No: C24
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
					0.4				
	0.5			D	0.5				
		Pit discontinued at 0.5m - limit of investigation							
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290646
NORTHING: 6278127

PIT No: C25
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				5 10 15 20
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290648
NORTHING: 6278077

PIT No: C26
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
23		FILLING - light brown fine to medium grained silty sand with a trace of porcelain, bricks, glass, terracotta and rootlets, dry		D	0.0 0.1				
		- becoming brown fine to medium grained silty sand, humid below 0.3m		D	0.4 0.5				
	0.6	SILTY SAND - light brown and yellow fine to medium grained silty sand, moist		D	0.9 1.0				
	1								1
	1.2	Pit discontinued at 1.2m - limit of investigation							
22									
	2								2
21									
	3								3
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290649
NORTHING: 6278028

PIT No: C27
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23		FILLING - brown fine to medium grained silty sand with anthropogenics comprising sheet metal, bricks, glass bottles, concrete, plastic, steel and potential ACM fragments		D	0.0				
		- asbestos fragments * and large pieces of dark grey shale at 0.1m			0.1				
				D	0.4				
					0.5				
					0.9				
22	1	- large amount of barbed wire and glass bottles at 1.0m		D	1.0				1
					1.4				
				D	1.5				
					1.9				
21	2			D	2.0				2
	2.0	CLAYEY SAND - orange and grey medium to coarse grained clayey sand, moist							
	2.2	Pit discontinued at 2.2m - due to collapsing pit walls							
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Collected TP27 potential ACM fragments

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.6 mAHD
EASTING: 290653
NORTHING: 6277995

PIT No: C28
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine to medium grained silty sand, dry		D	0.0				
					0.1				
	0.4	SILTY SAND - light grey brown fine to medium grained silty sand, humid							
				D	0.5				
					0.6				
22	1.0	Pit discontinued at 1.0m - limit of investigation							
21									
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290665
NORTHING: 6278350

PIT No: C29
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				5 10 15 20
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
	0.5			D	0.4				
		Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290667
NORTHING: 6278301

PIT No: C30
PROJECT No: 85644.04
DATE: 28/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid to moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290668
NORTHING: 6278251

PIT No: C31
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - very light grey brown fine to medium grained silty sand, humid to moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290669
NORTHING: 6278202

PIT No: C32
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290670
NORTHING: 6278152

PIT No: C33
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290672
NORTHING: 6278103

PIT No: C34
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	FILLING - dark brown and grey fine to medium grained silty sand with a trace of terracotta, glass, potential ACM fragments* and rootlets, humid		D	0.0				
					0.1				
	0.4	SILTY SAND - light grey brown fine to medium grained silty sand, humid							
				D	0.5				
					0.6				
					0.9				
				D					
22	1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
21	2								
20	3								

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Collected TP34 potential ACM fragments

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290673
NORTHING: 6278053

PIT No: C35
PROJECT No: 85644.04
DATE: 29/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	FILLING - grey brown fine to medium grained silty sand with a trace of glass, bricks and rootlets, humid		D	0.0				
					0.1				
	0.3	SILTY SAND - light grey brown fine to medium grained silty sand, humid							
				D*	0.4				
					0.5				
		- becoming very light grey brown below 0.8m							
				D	0.9				
	1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
22									
21									
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD27/290118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.6 mAHD
EASTING: 290674
NORTHING: 6278004

PIT No: C36
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine to medium grained silty sand, dry		D	0.0 - 0.1				
	0.4	SILTY SAND - light grey brown fine to medium grained silty sand, humid		D*	0.5 - 0.6				
22	1.0	Pit discontinued at 1.0m - limit of investigation							
21									
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD19/240118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290691
NORTHING: 6278326

PIT No: C37
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290692
NORTHING: 6278277

PIT No: C38
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD18/230118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290693
NORTHING: 6278227

PIT No: C39
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290695
NORTHING: 6278178

PIT No: C40
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD24/250118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290696
NORTHING: 6278128

PIT No: C41
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0			D	0.0				
	0.15	FILLING - dark brown and grey fine to medium grained silty sand with a trace of potential ACM fragments* and rootlets, humid			0.1				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid							
				D	0.4				
					0.5				
	0.8	Pit discontinued at 0.8m - limit of investigation							
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Collected TP41 potential ACM fragments

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290697
NORTHING: 6278079

PIT No: C42
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
					0.5				
22	1 1.0	Pit discontinued at 1.0m - limit of investigation							1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290698
NORTHING: 6278029

PIT No: C43
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine grained silty sand with a trace of rootlets, moist		D	0.0 0.1				
		SILTY SAND - light brown fine to medium grained silty sand, moist		D	0.4 0.5				
22	1			D	0.9 1.0				1
	1.3	SILTY SAND - light grey and yellow brown fine to medium grained silty sand with some clay, moist							
	1.5	Pit discontinued at 1.5m - limit of investigation							
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Some porcelain and glass on surface

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290716
NORTHING: 6278302

PIT No: C44
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290717
NORTHING: 6278252

PIT No: C45
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290719
NORTHING: 6278203

PIT No: C46
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid to moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.5 mAHD
EASTING: 290720
NORTHING: 6278154

PIT No: C47
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	FILLING - light brown fine grained silty sand with a trace of bricks, glass and rootlets		D	0.0 - 0.1				
		- potential ACM fragment @ 0.4m		D	0.4 - 0.5				
	0.7	SILTY SAND - light grey brown fine to medium grained silty sand, humid to moist		D	0.9 - 1.0				
22	1.4	Pit discontinued at 1.4m - limit of investigation							
21									
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Collected TP47 potential ACM fragments at 0.4m

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290721
NORTHING: 6278104

PIT No: C48
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	FILLING - dark brown and grey fine to medium grained silty sand with a trace of bricks and rootlets, humid		D*	0.0 - 0.1				
	0.2	SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4 - 0.5				
				D	0.9				
22	1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
21	2								
20	3								

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD21/240118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290722
NORTHING: 6278055

PIT No: C49
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D*	0.0				5 10 15 20
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD12/220118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290727
NORTHING: 6278015

PIT No: C50
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine grained silty sand, dry		D	0.0				
					0.1				
	0.3	SILTY SAND - light grey brown fine to medium grained silty sand, humid							
				D	0.5				
					0.6				
		- with large tree root at 0.9m							
	1.0	Pit discontinued at 1.0m - limit of investigation							
22									
21									
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Test pit excavated in slight depression

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290742
NORTHING: 6278278

PIT No: C51
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D*	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.05				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD16/230118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290743
NORTHING: 6278228

PIT No: C52
PROJECT No: 85644.04
DATE: 25/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.05				
		SILTY SAND - light brown and yellow fine to medium grained silty sand, moist		D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD22/250118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290744
NORTHING: 6278179

PIT No: C53
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
	0.1				0.1				
	0.2	SILTY SAND - light grey brown and yellow fine to medium grained silty sand, moist							
	0.4			D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290745
NORTHING: 6278129

PIT No: C54
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290747
NORTHING: 6278080

PIT No: C55
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
	0.1				0.1				
	0.2	SILTY SAND - light grey brown and yellow fine to medium grained silty sand, humid							
	0.4			D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290748
NORTHING: 6278030

PIT No: C56
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, moist		D*	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD5/180118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290767
NORTHING: 6278254

PIT No: C57
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light brown fine to medium grained silty sand, humid			0.05				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290768
NORTHING: 6278204

PIT No: C58
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D*	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD14/230118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290769
NORTHING: 6278155

PIT No: C59
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D*	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD13/220118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290771
NORTHING: 6278105

PIT No: C60
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	FILLING - brown fine to medium grained silty sand with a trace of bricks, glass with chicken wire embedded in it, steel wire and potential ACM*		D	0.0 0.1				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4 0.5				
		- with some clay below 0.9m		D	0.9				
22	1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
21									
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Collected TP60 potential ACM fragments

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290772
NORTHING: 6278056

PIT No: C61
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0				
	0.1				0.1				
	0.2	SILTY SAND - light grey brown fine to medium grained silty sand with some clay, dry							
	0.4			D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290775
NORTHING: 6278022

PIT No: C62
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine to medium grained silty sand, dry		D	0.0 - 0.1				
	0.3	SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4 - 0.5				
	0.7	Pit discontinued at 0.7m - limit of investigation							
22	1								
21	2								
20	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290792
NORTHING: 6278230

PIT No: C63
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - very light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0 0.05				
		SILTY SAND - very light brown fine to medium grained silty sand, humid							
		- with some red brown clayey sand below 0.4m		D	0.4 0.5				
	0.6	SILTY SAND - yellow brown fine to medium grained silty sand, moist							
	1 1.0	Pit discontinued at 1.0m - limit of investigation		D	0.9 1.0				
22	2								
21	3								
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290794
NORTHING: 6278180

PIT No: C64
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290795
NORTHING: 6278131

PIT No: C65
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290796
NORTHING: 6278081

PIT No: C66
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, dry to humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290797
NORTHING: 6278032

PIT No: C67
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine grained silty sand, dry		D	0.0				
	0.1				0.1				
	0.4			D	0.4				
	0.5				0.5				
	0.6	SILTY SAND - light grey brown fine to medium grained silty sand, humid							
	0.9			D	0.9				
	1.0				1.0				
	1.1	Pit discontinued at 1.1m - limit of investigation							

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.3 mAHD
EASTING: 290818
NORTHING: 6278206

PIT No: C68
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0				
		SILTY SAND - brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290819
NORTHING: 6278156

PIT No: C69
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290820
NORTHING: 6278107

PIT No: C70
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290821
NORTHING: 6278057

PIT No: C71
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.5 mAHD
EASTING: 290833
NORTHING: 6278020

PIT No: C72
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.4	SILTY SAND - brown fine to medium grained silty sand with some clay, dry		D	0.1 0.2				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.5 0.6				
22	1.0	Pit discontinued at 1.0m - limit of investigation							
21									
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290843
NORTHING: 6278181

PIT No: C73
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
22									
	2								2
21									
	3								3
20									

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290844
NORTHING: 6278132

PIT No: C74
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand, dry - piece of plastic running across pit below grass at 0.01m		D	0.0 0.1				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4 0.5				
	0.6	SILTY SAND - light brown and yellow fine to medium grained silty sand, moist							
	1 1.0	- with some clay below 0.9m		D	0.9 1.0				
22		Pit discontinued at 1.0m - limit of investigation							
21	2								
20	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290846
NORTHING: 6278082

PIT No: C75
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290852
NORTHING: 6278040

PIT No: C76
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.1				
				D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD2/170118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.4 mAHD
EASTING: 290859
NORTHING: 6277996

PIT No: C77
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with some clay and a trace of rootlets, dry		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, dry			0.1				
				D	0.4				
	0.6	SILTY SAND - brown fine to medium grained silty sand, moist			0.5				
	1			D*	0.9				1
	1.1	Pit discontinued at 1.1m - limit of investigation			1.0				
22	2								2
21	3								3
20									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD20/240118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290868
NORTHING: 6278157

PIT No: C78
PROJECT No: 85644.04
DATE: 23/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	FILLING - light grey brown fine to medium grained silty sand with a trace of sandstone gravel, bricks and rootlets, humid		D	0.2				
					0.3				
	0.5	SILTY SAND - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.5				
					0.6				
	0.7	SILTY SAND - light yellow brown fine to medium grained silty sand, moist							
	1 1.0			D*	0.9				
					1.0				
22		Pit discontinued at 1.0m - limit of investigation							
	2								
21									
	3								
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD15/230118 collected; Test pit excavated through stockpile

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290870
NORTHING: 6278108

PIT No: C79
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								
21	2								
20	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290876
NORTHING: 6278065

PIT No: C80
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290877
NORTHING: 6278015

PIT No: C81
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290884
NORTHING: 6277972

PIT No: C82
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.02	TOPSOIL - brown fine grained silty sand with a trace of rootlets, dry							
		SILTY SAND - light brown fine to medium grained silty sand, dry		D	0.1				
					0.2				
				D	0.4				
					0.5				
	0.6	SILTY SAND - brown fine to medium grained silty sand, moist							
	1			D	0.9				1
					1.0				
22	1.1	Pit discontinued at 1.1m - limit of investigation							
	2								2
21									
	3								3
20									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290894
NORTHING: 6278133

PIT No: C83
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	FILLING - light brown fine to medium grained silty sand, moist		D	0.0 0.01				
				D	0.4 0.5				
	0.6	SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.9 1.0				
22	1								1
	1.1	Pit discontinued at 1.1m - limit of investigation							
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290900
NORTHING: 6278090

PIT No: C84
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, moist		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist			0.01				
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290901
NORTHING: 6278041

PIT No: C85
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290902
NORTHING: 6277991

PIT No: C86
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.05	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0				
		SILTY SAND - light grey brown fine to medium grained silty sand, dry			0.05				
					0.4				
	0.5			D	0.5				
		Pit discontinued at 0.5m - limit of investigation							
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290909
NORTHING: 6277948

PIT No: C87
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	SILTY SAND - light brown fine to medium grained silty sand, dry		D	0.0 0.01				
	0.4	SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.5 0.6				
22	1.0	Pit discontinued at 1.0m - limit of investigation							
21	2								
20	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290920
NORTHING: 6278154

PIT No: C88
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290924
NORTHING: 6278116

PIT No: C89
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290925
NORTHING: 6278066

PIT No: C90
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290927
NORTHING: 6278017

PIT No: C91
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D*	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD10/220118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290928
NORTHING: 6277967

PIT No: C92
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets and a piece of brown sandstone, dry		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4 0.5				
	0.75	Pit discontinued at 0.75m - limit of investigation							
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290935
NORTHING: 6277924

PIT No: C93
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.25	SILTY SAND - light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.1 0.2				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4 0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290944
NORTHING: 6278179

PIT No: C94
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
22	0	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
	0.3	SILTY SAND - light brown fine to medium grained silty sand, moist		D	0.4 0.5				
	0.8	SILTY SAND - light grey and yellow brown fine to medium grained silty sand with some clay		D	0.9 1.0				
	1								1
	1.5	Pit discontinued at 1.5m - limit of investigation							
21	2								2
20	3								3
19									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290948
NORTHING: 6278141

PIT No: C95
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine grained silty sand with a trace of rootlets, moist		D*	0.0 0.01				
		SILTY SAND - light grey and yellow brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD3/170118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290949
NORTHING: 6278092

PIT No: C96
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets							
		SILTY SAND - light grey brown fine to medium grained silty sand with tree roots throughout the entire layer							
	0.5	Pit discontinued at 0.5m - limit of investigation							
	1								1
21	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 290951
NORTHING: 6278042

PIT No: C97
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290952
NORTHING: 6277993

PIT No: C98
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290953
NORTHING: 6277943

PIT No: C99
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290960
NORTHING: 6277900

PIT No: C100
PROJECT No: 85644.04
DATE: 24/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.3	TOPSOIL/FILLING - brown fine to medium grained silty sand with a trace of bricks, terracotta and rootlets, dry		D	0.0 0.01				
		SILTY SAND - light brown fine to medium grained silty sand, moist		D	0.5 0.6				
21	1.0	Pit discontinued at 1.0m - limit of investigation							

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290966
NORTHING: 6278209

PIT No: C101
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
	0.2	SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290972
NORTHING: 6278166

PIT No: C102
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290974
NORTHING: 6278117

PIT No: C103
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey and yellow brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 290975
NORTHING: 6278067

PIT No: C104
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, dry to humid							
		SILTY SAND - light grey brown fine to medium grained silty sand, moist							
	0.5	Pit discontinued at 0.5m - limit of investigation							
22	1								1
21	2								2
20	3								3
19									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 290976
NORTHING: 6278018

PIT No: C105
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey and yellow brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 290977
NORTHING: 6277968

PIT No: C106
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290979
NORTHING: 6277919

PIT No: C107
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD11/220118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290991
NORTHING: 6278223

PIT No: C108
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown and yellow fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290991
NORTHING: 6278185

PIT No: C109
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	FILLING - light brown fine to medium grained silty clay with some concrete gravel, a trace of rootlets and a light grey and yellow sandstone cobble		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand with a trace of rootlets, dry to moist		D	0.4 0.5				
	0.6	SILTY SAND - light grey and yellow brown fine to medium grained silty sand with a trace of gravel, dry to moist		D	0.9				
22	1 1.0	Pit discontinued at 1.0m - limit of investigation			1.0				1
21	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 290998
NORTHING: 6278142

PIT No: C110
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD4/180118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 290999
NORTHING: 6278093

PIT No: C111
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 291000
NORTHING: 6278043

PIT No: C112
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid							
		SILTY SAND - light grey brown fine to medium grained silty sand, moist							
	0.5	Pit discontinued at 0.5m - limit of investigation							

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 291001
NORTHING: 6277994

PIT No: C113
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 291003
NORTHING: 6277944

PIT No: C114
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 291004
NORTHING: 6278249

PIT No: C115
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD7/190118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.9 mAHD
EASTING: 291012
NORTHING: 6278164

PIT No: C116
PROJECT No: 85644.04
DATE: 18/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - brown fine to medium grained silty sand, moist		D	0.4 0.5				
	0.6	SILTY SAND - light grey and yellow brown fine to medium grained silty sand, moist		D	0.9				
	1 1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
21	2								
20	3								
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 291016
NORTHING: 6278211

PIT No: C117
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
		SILTY SAND - light brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

5 10 15 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 291023
NORTHING: 6278118

PIT No: C118
PROJECT No: 85644.04
DATE: 22/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 291024
NORTHING: 6278069

PIT No: C119
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.6 mAHD
EASTING: 291026
NORTHING: 6278019

PIT No: C120
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D*	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD8/190118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 291027
NORTHING: 6277970

PIT No: C121
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 291029
NORTHING: 6278230

PIT No: C122
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
23	0.1	FILLING - brown fine to medium grained silty sand with some clay and a trace of rootlets, dry		D	0.0 0.01				
	0.2	FILLING - dark grey fine to medium grained silty sand with some dark grey gravel, dry		D	0.1 0.2				
		SILTY SAND - brown and golden fine to medium grained silty sand, moist		D	0.4 0.5				
	0.8	Pit discontinued at 0.8m - limit of investigation							
22	1								1
21	2								2
20	3								3

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 291036
NORTHING: 6278189

PIT No: C123
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.0	TOPSOIL - brown fine to medium grained silty sand with a trace of rootlets, moist		D	0.0 0.01				
	0.2	SILTY SAND - light brown fine to medium grained silty sand, moist		D	0.4 0.5				
	0.6	SILTY SAND - light grey and yellow brown fine to medium grained silty sand, moist		D	0.9				
22	1.0	Pit discontinued at 1.0m - limit of investigation			1.0				
21	2								
20	3								

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 291048
NORTHING: 6278094

PIT No: C124
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D*	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD9/190118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 291050
NORTHING: 6278206

PIT No: C125
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
23	0.15	FILLING - grey brown fine to medium grained silty sand with a trace of dark gravel and rootlets, humid		D	0.0 0.01				
		SILTY SAND - brown fine to medium grained silty sand, moist		D	0.4 0.5				
	0.8	Pit discontinued at 0.8m - limit of investigation							
22	1								1
21	2								2
20	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.6 mAHD
EASTING: 291050
NORTHING: 6278045

PIT No: C126
PROJECT No: 85644.04
DATE: 14/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, humid		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 291051
NORTHING: 6277995

PIT No: C127
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, dry		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, dry		D	0.4 0.5				
	0.6	SILTY SAND - light brown fine to medium grained silty sand, moist							
	1.5	Pit discontinued at 1.5m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD1/170118 collected

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.6 mAHD
EASTING: 291074
NORTHING: 6278070

PIT No: C128
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
22	0.1	TOPSOIL - light brown fine to medium grained silty sand with a trace of rootlets, humid		D	0.0 0.01				
		SILTY SAND - light grey brown fine to medium grained silty sand, moist		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
21	1								1
	2								2
20	3								3
19									

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 291075
NORTHING: 6278020

PIT No: C129
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
									5 10 15 20
		TOPSOIL - light brown fine grained silty sand with a trace of rootlets, dry		D	0.0 0.01				
	0.2	SILTY SAND - light grey brown fine grained silty sand		D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3
19									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.7 mAHD
EASTING: 291099
NORTHING: 6278046

PIT No: C130
PROJECT No: 85644.04
DATE: 17/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
									5 10 15 20
		TOPSOIL - light brown fine grained silty sand with a trace of rootlets, dry		D	0.0 0.01				
	0.2	SILTY SAND - light grey brown fine to medium grained silty sand							
				D	0.4				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
22	1								1
21	2								2
20	3								3
19									

RIG: Hyundai 60 CR-9 6t excavator - 450mm bucket

LOGGED: LOC

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.5 mAHD
EASTING: 290634
NORTHING: 6278370
DIP/AZIMUTH: 90°/--

BORE No: GW1
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	SILTY SAND - light brown, fine grained silty sand							1m Stickup
		SILTY SAND - grey brown, fine to medium grained silty sand							Casing; Backfill
22	1								
21	2								
	2.8	CLAYEY SAND - orange, medium to coarse grained clayey sand, moist							Bentonite plug
20	3								
19	4								Gravel filter
									Class 18 screen
18	5								
	6.0	Bore discontinued at 6.0m							Bottom cap
17	6								
16	7								
15	8								
14	9								

RIG: Geo 305 **DRILLER:** LC **LOGGED:** SI **CASING:**

TYPE OF BORING: Solid flight auger to 6.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Location coordinates are in MGA94 Zone 56.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.2 mAHD
EASTING: 290995
NORTHING: 6278241
DIP/AZIMUTH: 90°/--

BORE No: GW2
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	SILTY SAND - light brown, fine grained silty sand							1m Stickup
		SILTY SAND - grey brown, fine to medium grained silty sand							Casing; Backfill
22	1								
21	2								
	2.3	CLAYEY SAND - orange, medium to coarse grained clayey sand, moist							Bentonite plug
20	3								
19	4								Gravel filter
									Class 18 screen
18	5								
	6.0	Bore discontinued at 6.0m							Bottom cap
17	6								
16	7								
15	8								
14	9								

RIG: Geo 305 **DRILLER:** LC **LOGGED:** SI **CASING:**

TYPE OF BORING: Solid flight auger to 6.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Location coordinates are in MGA94 Zone 56.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.6 mAHD
EASTING: 291086
NORTHING: 6278060
DIP/AZIMUTH: 90°/--

BORE No: GW3
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
22	0.2	SILTY SAND - light brown, fine grained silty sand							1m Stickup
		SILTY SAND - grey brown, fine to medium grained silty sand							Casing; Backfill
21	2.2	CLAYEY SAND - orange, medium to coarse grained clayey sand, moist							Bentonite plug; Gravel filter; Class 18 screen
17	6.0	Bore discontinued at 6.0m							Bottom cap

RIG: Geo 305 **DRILLER:** LC **LOGGED:** SI **CASING:**

TYPE OF BORING: Solid flight auger to 6.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Location coordinates are in MGA94 Zone 56.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.0 mAHD
EASTING: 290617
NORTHING: 6278021
DIP/AZIMUTH: 90°/--

BORE No: GW4
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	SILTY SAND - light brown, fine grained silty sand							1m Stickup
		SILTY SAND - grey brown, fine to medium grained silty sand							
22	1								1 Casing
									Backfill
21	2								2
	2.8	CLAYEY SAND - orange, medium to coarse grained clayey sand, moist							Bentonite plug
20	3								3
19	4								4 Gravel filter
									Class 18 screen
18	5								5
17	6	6.0 Bore discontinued at 6.0m							6 Bottom cap
16	7								7
15	8								8
14	9								9

RIG: Geo 305 **DRILLER:** LC **LOGGED:** SI **CASING:**

TYPE OF BORING: Solid flight auger to 6.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Location coordinates are in MGA94 Zone 56.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 23.1 mAHD
EASTING: 290842
NORTHING: 6278054
DIP/AZIMUTH: 90°/--

BORE No: GW5
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	SILTY SAND - light brown, fine grained silty sand							1m Stickup
		SILTY SAND - grey brown, fine to medium grained silty sand							
22	1								Casing
									Backfill
21	2								
	2.4	CLAYEY SAND - orange, medium to coarse grained clayey sand, moist							Bentonite plug
20	3								
19	4								Gravel filter
									Class 18 screen
18	5								
17	6	6.0 Bore discontinued at 6.0m							Bottom cap
16	7								
15	8								
14	9								

RIG: Geo 305 **DRILLER:** LC **LOGGED:** SI **CASING:**

TYPE OF BORING: Solid flight auger to 6.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Location coordinates are in MGA94 Zone 56.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: Conrad Gargett Pty Ltd
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond, NSW

SURFACE LEVEL: 22.8 mAHD
EASTING: 290995
NORTHING: 6277929
DIP/AZIMUTH: 90°/--

BORE No: GW6
PROJECT No: 85644.04
DATE: 19/1/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
22	0.2	SILTY SAND - light brown, fine grained silty sand							1m Stickup
		SILTY SAND - grey brown, fine to medium grained silty sand							Casing; Backfill
21	2.2	CLAYEY SAND - orange, medium to coarse grained clayey sand, moist							Bentonite plug; Gravel filter; Class 18 screen
17	6.0	Bore discontinued at 6.0m							Bottom cap

RIG: Geo 305 **DRILLER:** LC **LOGGED:** SI **CASING:**

TYPE OF BORING: Solid flight auger to 6.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Location coordinates are in MGA94 Zone 56.

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.4 AHD
EASTING: 290646
NORTHING: 6278336
DIP/AZIMUTH: 90°/--

BORE No: 1
PROJECT No: 85644.00
DATE: 21/10/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
					0.0		0.0-1.5m: Bulk sample		
23	0.3	TOPSOIL - dark grey-brown silty fine grained sand topsoil with rootlets, dry to humid		A	0.1				
		SILTY SAND - medium dense, dark grey-brown silty fine grained sand, humid		A	0.5				
22	1	- with some clay, grey-brown fine to medium grained, moist below 0.9m depth - becoming slightly clayey below 1.2m depth		A S	1.0 1.35		2,4,7 N = 11 Rec = 350mm		
				A	1.5				
21	2				2.5		8,1216 refusal Rec = 0.4m	▼	
				S					
20	3				2.9				
	3.4	CLAYEY SAND - medium dense, grey clayey fine to medium grained sand, moist to wet		D	3.5				
19	4 4.0	SILTY CLAY - very stiff, grey and orange-brown mottled, silty, high plasticity clay with a trace of fine grained sand, moist		S	4.0 4.35		4,8,10 N = 18 Rec = 350mm pp = 400		
18	5								
					5.5				
17	6	- becoming grey and slightly sandy below 5.7m depth. Sand fraction fine grained		S	5.95		6,11,13 N = 24 Rec = 450mm pp = 200-250		
16	7 7.0	SANDY SILTY CLAY - very stiff, grey sandy silty medium plastic clay. Sand fraction fine grained		S	7.0 7.35		8,12,16 N = 28 Rec = 350mm pp = 350		
	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
15	8								
14	9								

RIG: DT250 **DRILLER:** GM **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 2.5m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.2 AHD
EASTING: 290641
NORTHING: 6278178
DIP/AZIMUTH: 90°/--

BORE No: 2
PROJECT No: 85644.00
DATE: 21/10/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	TOPSOIL - dark grey-brown silty fine grained sand topsoil with rootlets, dry to humid		A	0.0 0.1				
		SILTY SAND - medium dense, grey-brown silty fine grained sand, humid		A	0.5				
22	1	- with some clay, grey-brown and orange-brown mottled, with fine to medium grained sand, moist below 0.9m depth - becoming dense below 1.0m depth - becoming fine grained, slightly clayey below 1.1m depth		A S A	1.0 1.45 1.5		3,13,24 N = 37 Rec = 450mm		
21	2								
		- with some clay, becoming orange-brown below 2.6m depth		S	2.5 2.83		10,18,21 N = 39 Rec = 330		
20	3								
19	4	4.0 SILTY CLAY -stiff, grey with orange-brown mottled, silty high plasticity clay with a trace of fine grained sand, moist		S	4.0 4.36		3,5,7 N = 12 Rec = 360 pp = 150-200		
18	5								
		- becoming very stiff and grey below 5.5m depth		S	5.5 5.84		5,10,11 N = 21 Rec = 340mm pp = 300		
17	6								
16	7			S	7.0		6,9,11 N = 20 Rec = 450mm pp = 200-250		
	7.45	- becoming grey and orange-brown and black mottled below 7.3m depth			7.45				
		Bore discontinued at 7.45m - limit of investigation							
15	8								
14	9								

RIG: DT250 **DRILLER:** GM **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.0 AHD
EASTING: 290634
NORTHING: 6278036
DIP/AZIMUTH: 90°/--

BORE No: 3
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23		TOPSOIL - dark grey-brown silty fine grained sand topsoil with a trace of fine grained gravel, dry to moist		A/E	0.1				
	0.5			A/E	0.5				
22	1	SILTY SAND - dense to very dense, light grey-brown silty fine grained sand, slightly clayey, damp to moist		A/E	1.0				1
				S	1.45		13,25,28 N = 53		
21	2				2.5				2
				S	2.95		16,22,20 N = 42		
20	3								3
19	4				4.0				4
	4.0	SILTY CLAY - very stiff, light grey and orange-brown mottled, silty clay with a trace of fine grained sand, clay fraction is low to medium plasticity, M<Wp		S	4.45		7,9,11 N = 20		
18	5								5
		5.5m: becoming light grey below 5.5m			5.5				
				S	5.95		6,10,13 N = 23		
17	6								6
16	7				7.0				7
		7.0m: becoming hard, light grey, orange-brown and yellow brown mottled below 7.0m		S			10,15,22 N = 37		
	7.45				7.45				
		Bore discontinued at 7.45m - limit of investigation							
15	8								8
14	9								9

RIG: Explora 140 **DRILLER:** JS **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.3 AHD
EASTING: 290772
NORTHING: 6278209
DIP/AZIMUTH: 90°/--

BORE No: 4
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.3	TOPSOIL - dark grey-brown, silty fine grained sand topsoil with a trace of fine grained rounded gravel, dry to moist		A	0.2				
				A	0.5				
		SILTY SAND - dense, light grey, silty fine grained sand, slightly clayey, dry to moist		A	1.0		20,30/140mm refusal		
22	1			S	1.14				
	2							▼	
21	2.5	CLAYEY SAND - medium dense, light grey and brown mottled, clayey, fine grained sand		S	2.5		9,11,18 N = 29		
	3				2.95				
20	4				4.0				
19	4.0	SILTY CLAY - very stiff, light grey and brown mottled, silty clay with a trace of fine grained sand. Clay fraction is low plasticity - becoming light grey below 4.1m		S	4.45		7,9,11 N = 20		
	5								
18					5.5				
	6			S	5.95		5,9,11 N = 20		
17	7								
	7.0	SANDY SILT - hard, light grey-brown sandy silt, slightly clayey. Sand fraction is fine grained		S	7.0		12,15,18 N = 33		
16	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
	8								
15									
	9								
14									

RIG: Explora 140 **DRILLER:** JS **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 1.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.2 AHD
EASTING: 290712
NORTHING: 6278122
DIP/AZIMUTH: 90°/--

BORE No: 5
PROJECT No: 85644.00
DATE: 28/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	TOPSOIL - dark grey-brown, silty fine grained sand topsoil, dry to moist		A/E	0.1 0.2		0.2-1.0m: Bulk sample		
		SILTY SAND - medium dense, grey-brown silty fine grained sand, moist		A	0.5			▼	
		- becoming wet below 0.9m							
22	1.0	CLAYEY SAND - medium dense, light grey and orange-brown mottled, clayey fine grained sand		A S	1.0 1.35		3,4,19 N = 23		
21		- becoming orange-brown below 2.5m		S	2.5 2.95		9,15,13 N = 28		
19				S	4.0 4.4		5,6,5 N = 11		
18	4.8	SILTY CLAY - very stiff, grey and orange-brown mottled silty clay. Clay fraction is low to medium plasticity, M<Wp to M~Wp		S	5.5 5.95		6,10,13 N = 23 pp = 400		
16				S	7.0		5,8,12 N = 20		
	7.45	Bore discontinued at 7.45m - limit of investigation			7.45		pp = 400		

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 0.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.3 AHD
EASTING: 290772
NORTHING: 6278063
DIP/AZIMUTH: 90°/--

BORE No: 6
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.2	TOPSOIL - dark grey-brown silty fine grained sand topsoil with some fine to medium subangular to angular gravel, dry		A	0.1				
				A	0.5				
22	1	FILLING - very loose, dark grey-brown silty fine grained sand filling, slightly gravelly. Gravel fraction fine to medium subangular to angular - with rubbish inclusions, plastic bags, rags and plastic bottles below 0.5m - becoming slightly clayey below 1.0m		A	1.0			▼	1
				S	1.45		0,1,2 N = 3		
21	2								2
	2.5	CLAYEY SAND - medium dense to dense, light yellow-grey and orange-brown mottled, clayey fine grained sand		S	2.5		13,14,16 N = 30		
20	3				2.95				3
19	4				4.0				4
	4.0	SILTY CLAY - stiff, light grey and yellow-brown mottled, silty clay with some sand. Sand fraction is fine grained, clay is low plasticity		S	4.45		3,3,8 N = 11		
18	5								5
	5.25	SILTY CLAY - very stiff, grey-brown and brown, silty clay with a trace of fine grained sand			5.5				
				S	5.95		8,10,15 N = 25		
17	6								6
	7	- becoming hard below 7.0m			7.0				7
16				S			10,14,17 N = 31		
	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
15	8								8
14	9								9

RIG: Explora 140 **DRILLER:** JS **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 1.0m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.0 AHD
EASTING: 291004
NORTHING: 6278212
DIP/AZIMUTH: 90°/--

BORE No: 7
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	0.1	TOPSOIL - dark grey-brown silty fine grained sand topsoil		A/E	0.1			▼	
		SILTY SAND - dense, grey silty fine grained sand, wet - becoming yellow-brown below 0.4m							
22	1	- becoming slightly clayey below 1.2m		S	1.0 1.45		11,24,15/100mm refusal		1
21	2								2
	2.5	CLAYEY SAND - dense, light grey clayey fine grained sand, moist		S	2.5 2.95		10,13,17 N = 30		
20	3								3
	3.9	SILTY CLAY - very stiff, grey and yellow-brown mottled, silty clay with a trace of fine grained sand. Clay fraction is low plasticity, M<Wp		S	4.0 4.85		4,9,15 N = 24		
19	4								4
18	5			S	5.5 5.95		6,11,13 N = 24		5
17	6								6
16	7	- becoming hard below 7.0m depth		S	7.0		15,22,22 N = 44		7
	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
15	8								8
14	9								9

RIG: Explora 140 **DRILLER:** JS **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 0.3m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 22.9 AHD
EASTING: 290940
NORTHING: 6278122
DIP/AZIMUTH: 90°/--

BORE No: 8
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
22	0.0	TOPSOIL - dark grey-brown silty fine grained sand topsoil, dry to moist		A	0.1		0.0-1.0m: Bulk sample		
	0.3	SILTY SAND - dense, dark grey-brown, silty fine grained sand, dry to moist		A	0.5			▼	
	1	- becoming light grey-brown below 0.9m - becoming slightly clayey below 1.1m		A	1.0				
				S	1.45		6,13,21 N = 34		
21	2	- becoming medium dense below 2.5m		S	2.5		7,11,15 N = 26		
20	3				2.95				
19	4				4.0				
	4.0	SILTY CLAY - stiff, light grey and orange-brown mottled, silty clay with a trace of fine grained sand, M<Wp		S	4.45		4,6,8 N = 14		
18	5								
		- becoming very stiff below 5.5m		S	5.5		5,8,13 N = 21		
17	6				5.95				
16	7			S	7.0		7,10,11 N = 21		
	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
15	8								
14	9								
13									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 0.7m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 23.0 AHD
EASTING: 290856
NORTHING: 6278041
DIP/AZIMUTH: 90°/--

BORE No: 9
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23		TOPSOIL - dark grey-brown, silty fine grained sand topsoil, dry to moist		A	0.1				
				A	0.5			▼	
22	1								1
	0.9	CLAYEY SILTY SAND - medium dense, light grey and brown mottled clayey silty fine grained sand, wet		S	1.0		7,9,13 N = 22		
					1.45				
21	2								2
	2.5	SILTY SAND - dense, light grey and brown mottled, silty fine grained sand, slightly clayey		S	2.5		14,19,19 N = 38		
20	3				2.95				3
19	4								4
	4.0	SANDY SILT - stiff, light grey and brown mottled, sandy silt, slightly clayey, sand fraction is fine grained		S	4.0		4,5,5 N = 10		
					4.45				
18	5								5
	5.0	SILTY CLAY - very stiff, light grey and brown mottled, silty clay with a trace of fine grained sand, M<Wp							
				S	5.5		5,9,11 N = 20		
17	6				5.95				6
16	7								7
		- becoming hard below 7.0m		S	7.0		7,13,19 N = 32		
	7.45				7.45				
		Bore discontinued at 7.45m - limit of investigation							
15	8								8
14	9								9

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 0.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 22.8 AHD
EASTING: 291041
NORTHING: 6277983
DIP/AZIMUTH: 90°/--

BORE No: 10
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
22	0.0	TOPSOIL - dark grey-brown silty sand topsoil, dry							
	0.5	SILTY SAND - medium dense, light grey-brown silty sand with a trace of clay, moist						▼	
1	1.0			S	1.0		4,9,9 N = 18		1
	1.2	CLAYEY SILTY SAND - medium dense, light grey and brown mottled, clayey silty fine grained sand			1.45				
21	2			S	2.5		5,10,9 N = 19		2
					2.95				
20	3								3
				S	4.0		5,9,12 N = 21		
19	4				4.45				4
	4.3	SILTY CLAY - very stiff, grey and brown mottled silty clay with a trace of fine grained sand, clay fraction is low plasticity							
18	5			S	5.5		3,7,10 N = 17		5
					5.95				
17	6								6
	7			S	7.0		6,11,18 N = 29		7
16	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
15	8								8
14	9								9
13									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 0.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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BOREHOLE LOG

CLIENT: NSW Department of Education
PROJECT: Hurlstone Agricultural High School (Hawkesbury)
LOCATION: Londonderry Road, Richmond

SURFACE LEVEL: 22.9 AHD
EASTING: 290991
NORTHING: 6277929
DIP/AZIMUTH: 90°/--

BORE No: 11
PROJECT No: 85644.00
DATE: 27/9/2016
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
					0.0		0.0-1.0m: Bulk sample		
22	0.2	TOPSOIL - dark grey-brown, silty fine grained sand topsoil with rootlets, dry		A/E	0.1				
		SILTY SAND - medium dense, dark grey-brown, silty fine grained sand, dry		A/E	0.5			▼	
	1	- becoming light grey-brown and moist below 0.6m		A/E	1.0				1
	1.2	CLAYEY SAND - medium dense, light grey and orange-brown mottled, clayey fine grained sand with some silt, moist		S	1.45		3,3,19 N = 22		
21	2			S	2.5		3,7,9 N = 16		2
20	3			S	2.95				3
19	4			S	4.0		6,9,12 N = 21		4
	4.2	SILTY CLAY - very stiff, light grey and orange-brown mottled, silty clay with a trace of fine grained sand. Clay fraction is low plasticity, M<Wp		S	4.45				
18	5								5
		5.5m: becoming light grey below 5.5m		S	5.5		5,8,9 N = 17		
17	6				5.95				6
16	7			S	7.0		5,7,12 N = 19		7
	7.45	Bore discontinued at 7.45m - limit of investigation			7.45				
15	8								8
14	9								9
13									

RIG: Scout 4 **DRILLER:** RKE **LOGGED:** DCH **CASING:** Uncased

TYPE OF BORING: Solid flight auger to 7.0m

WATER OBSERVATIONS: Free groundwater observed at 0.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Appendix F

Summary of Laboratory Test Results

Table F1: Contaminant Concentrations in Topsoil/Filling

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH6/0.5	<0.2	<0.5	<1	<1	<25	<50	63	8.2	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	11	12	44	<0.1	10	44
BH6/1.0	<0.2	<0.5	<1	<1	<25	<50	48	7.3	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	12	11	45	0.1	10	200
C3/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	3
C5/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	2
C6/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	5	<0.1	1	3
C10/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	3
C12/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	3	19	<0.1	1	7
C13/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	4	<0.1	1	2
C15/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	2
C17/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	8	17	170	0.2	5	400
C20/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	3
C22/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	3	<0.1	<1	3
C25/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	4
C26/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	0.4	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	0.9	12	63	340	0.5	8	530
C26/0-0.1	<0.2	<0.5	<1	<1	<25	<50	0.56	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	5	11	98	<0.1	4	110
C27/0.9-1.0	<0.2	<0.5	<1	<1	<25	<50	2.5	<0.5	3.6	NIL	NIL	<5	NT	NT	N	28	2	33	290	1700	<0.1	29	2400
C27/1.4-1.5	<0.2	<0.5	<1	<1	<25	<50	7.5	0.9	1.8	NIL	NIL	<5	NT	NT	N	20	3	25	380	1000	<0.1	24	3700
C29/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	2
C32/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	1	2
C34/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	15	98	0.1	3	86
C35/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	22	320	0.2	2	140
C36/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	2	9	<0.1	2	7
C38/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	4	<0.1	1	3
C40/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	9	<0.1	<1	3
C41/0-0.1	<0.2	<0.5	<1	<1	<25	<50	1.5	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	0.6	8	47	510	6.3	5	290
C43/0-0.1	<0.2	<0.5	<1	<1	<25	<50	0.4	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	7	100	<0.1	3	75
C44/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	3	<0.1	1	2
C46/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	5	<0.1	<1	3
C47/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	10	1.2	0.1	NIL	NIL	<5	7.4	15	N	12	1	28	82	530	0.7	14	730
C48/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	5	16	42	<0.1	3	160

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested; YELLOW shading refers to results >250% of relevant investigation level

Table F1: Contaminant Concentrations in Topsoil/Filling (Cont.)

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C50/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	<1	4	<0.1	3	4
C51/0.0-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	3
C54/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	3	38	<0.1	1	30
C55/0-0.1	<0.2	<0.5	<1	<1	<25	<50	4.9	0.8	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	2	36	<0.1	1	23
C56/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	1	13	<0.1	2	12
C58/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	2	2
C59/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.4	1.1	N	<4	<0.4	2	3	81	<0.1	1	14
C60/0-0.1	<0.2	<0.5	<1	<1	<25	<50	0.71	<0.5	NIL	NIL	NIL	<5	NT	NT	N	5	3	11	26	230	0.5	7	880
C62/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	1	4	<0.1	2	5
C64/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	2	7	<0.1	3	20
C65/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	6	<0.1	1	4
C68/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	2	6	<0.1	3	19
C69/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	7	2	6	<0.1	2	11
C71/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	4	<0.1	1	3
C72/0.1-0.2	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	2	31	<0.1	2	15
C73/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	3	8	<0.1	2	18
C74/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	2	7	<0.1	2	17
C78/0.2-0.3	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	1	3	<0.1	2	4
C79/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	<1	5	<0.1	2	5
C80/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	2	2
C83/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	1	11	<0.1	2	5
C84/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	3	<1
C87/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	8	2	6	<0.1	3	9
C89/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	5	<0.1	<1	4
C90/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	3
C91/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	2
C93/0.1-0.2	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	3	<0.1	2	4
C95/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	3
C97/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	5
C100/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	5.5	2.2	N	<4	<0.4	4	3	19	<0.1	3	43

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested; YELLOW shading refers to results >250% of relevant investigation level

Table F1: Contaminant Concentrations in Topsoil/Filling (Cont.)

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C102/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	2	4	<0.1	3	4
C103/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	<1	3
C105/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	38	<0.1	1	30
C107/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	2	36	<0.1	1	23
C108/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	2	13	<0.1	2	12
C109/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	3	2	<0.1	2	2
C113/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	1	<1	81	<0.1	1	14
C115/0-0.1	<0.2	<0.5	<1	<1	<25	<50	4.3	<0.5	0.1	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	3	230	0.5	7	880
C118/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	1	<1	4	<0.1	2	5
C119/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	2	7	<0.1	3	20
C121/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	1	1	6	<0.1	1	4
C122/0.1-0.2	<0.2	<0.5	<1	<1	<25	<50	0.64	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	5	27	6	<0.1	3	19
C124/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	6	<0.1	2	11
C126/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	1	3
C127/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	1	<1	31	<0.1	2	15
C128/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	8	<0.1	2	18
C129/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	1	<1	7	<0.1	2	17
C130/0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	2	3	<0.1	2	4
Stockpile 1/-	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	9	5	5	<0.1	2	5
Stockpile 2/-	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	6	7	4	<0.1	2	2

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested; YELLOW shading refers to results >250% of relevant investigation level

Table F2: Statistical Analysis of Topsoil/Filling

Parameter	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Maximum	<0.2	<0.5	<1	<1	<25	<50	63	8.2	NIL	NIL	NIL	<5	7.4	15	NA	28	3	33	380	1700	6.3	29	3700
Average	NA	NA	NA	NA	NA	NA	1.8	0.2	NIL	NIL	NIL	<5	6.4	6.1	NA	0.8	0.1	4.5	13.8	73.8	0.1	2.7	130.4
Standard Dev.	NA	NA	NA	NA	NA	NA	NA	NA	NIL	NIL	NIL	<5	NA	NA	NA	4.1	0.5	5.4	54.3	234.8	0.7	4.8	507.2
95% UCL	NA	NA	NA	NA	NA	NA	NA	NA	NIL	NIL	NIL	<5	NA	NA	NA	2.8	0.4	7.1	40.4	188.2	0.5	5.1	379.1

Table F3: Contaminant Concentrations in Natural Soils

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH3/0.2	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	6	<0.4	5	11	80	<0.1	4	61
BH5/0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.8	NT	N	<4	<0.4	9	16	130	0.7	6	190
BH9/0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	5.6	NT	N	<4	<0.4	3	2	4	<0.1	2	4
C1/0.9-1.0	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.1	<1	N	<4	<0.4	2	<1	2	<0.1	1	<1
C2/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	1	1
C4/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	<1	<1
C7/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	1	<1
C8/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	12	3	10	<0.1	4	5
C11/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	1	<0.1	2	<1
C14/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	1	<0.1	2	<1
C18/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	7.8	<1	N	<4	<0.4	2	<1	4	<0.1	1	34
C19/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	4	2
C21/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	1	<0.1	1	<1
C23/0.1-0.2	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	9	4	5	<0.1	3	4
C28/0.5-0.6	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	<1	1
C31/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	5.4	<1	N	<4	<0.4	3	<1	2	<0.1	2	2
C33/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	2	<1
C39/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	<1	2
C45/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	2	1
C49/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	5	<0.1	3	7
C52/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	2	2
C53/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	<1	2	<0.1	1	3
C57/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	1	4	<0.1	2	6
C61/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	1	4	<0.1	2	6
C63/0.3-0.4	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	12	3	8	<0.1	3	16
C66/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	1	3
C67/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	11	1	6	<0.1	3	7
C70/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	1	<0.1	2	1
C75/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.3	<1	N	<4	<0.4	3	<1	2	<0.1	1	1
C88/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.5	<1	N	<4	<0.4	4	<1	2	<0.1	2	<1

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested

Table F3: Contaminant Concentrations in Natural Soils (Cont.)

Sample/ Depth (m)	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
C76/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	1	2
C77/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.6	3.5	N	<4	<0.4	8	<1	3	<0.1	3	3
C86/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	3	2
C92/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	3	3
C98/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	2	2
C99/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	5
C101/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	4	<1	3	<0.1	1	7
C106/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	6.2	<1	N	<4	<0.4	2	<1	1	<0.1	2	<1
C110/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	3	3
C111/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	1	<1	1	<0.1	3	1
C114/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	5.8	<1	N	<4	<0.4	1	2	40	<0.1	1	6
C116/0.9-1.0	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	3	3	4	<0.1	4	4
C117/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	3	<0.1	2	7
C120/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	<1	2	<0.1	4	<1
C123/0.9-1.0	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	7.3	1.2	N	<4	<0.4	3	1	5	<0.1	3	4
C125/0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	NT	NT	N	<4	<0.4	2	1	3	<0.1	3	4

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested

Table F4: Statistical Analysis of Natural Soils

Parameter	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Maximum	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	NIL	NIL	NIL	<5	7.8	3.5	NA	6	<0.4	12	16	130	0.7	6	190
Average	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.4	0.5	NA	0.1	NA	3.6	1.1	8.2	NA	2.1	9.0
Standard Dev.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	NA	22.3	NA	1.3	29.1
95% UCL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.4	NA	22.4	NA	3.0	27.7

Table F5: Contaminant Concentrations in QA/QC Samples

Sample/ Primary	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Primary Lab (Envirolab)																							
BD2/C76 0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	4	<1	3	<0.1	1	<1
BD3/C95 0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	2	<1	4	<0.1	<1	7
BD5/C56 0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	3	3	13	1.4	5	12
BD23/C12 0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	3	4	19	<0.1	<1	6
BD25/C5 0-0.1	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	6	<1	3	<0.1	<1	2
BD26/C4 0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	4	<1	2	<0.1	<1	<1
BD17/C19 0.4-0.5	<0.2	<0.5	<1	<1	<25	<50	<0.05	<0.5	0	0	0	<5	NT	NT	N	<4	<0.4	3	<1	2	<0.1	5	2
Secondary Lab (Eurofins)																							
BT2/C76 0.4-0.5	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	2.5	<0.4	<5	<5	<5	<0.1	<5	<5
BT3/C95 0-0.1	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	<2	<0.4	<5	<5	<5	<0.1	<5	<5
BT5/C56 0-0.1	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	<2	<0.4	<5	<5	7.7	<0.1	<5	6.6
BT23/C12 0-0.1	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	<2	<0.4	<5	<5	<5	<0.1	<5	<5
BT25/C5 0-0.1	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	<2	<0.4	<5	<5	24	<0.1	<5	8.5
BT26/C4 0.4-0.5	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	<2	<0.4	<5	<5	<5	<0.1	6.8	<5
BT17/C19 0.4-0.5	<0.1	<0.1	<0.1	<0.3	<20	<50	<0.5	<0.5	0	0	0	<5	NT	NT	N	<2	<0.4	<5	<5	<5	<0.1	<5	<5
Field QC/QC																							
TB	<0.2	<0.5	<1	<3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
TS	115%	119%	115%	117%	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; NIL = below detection limits; NT = not tested

Table F6: Adopted Comparative Criteria for Soils

Criterion	B	T	E	X	F1	F2	+PAH	B.TEQ	+OCP	+OPP	+PCB	Phenol	pH	CEC	ACM	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	units	%	(Y/N)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Adopted Investigation/Screening Levels (mg/kg)																							
Health-Based[1]	0.5	160	55	40	45	110	300	3	Various	Various	1	3000				100	20	100	6000	300	40	400	7400
Ecological[2]	65	105	125	45	180	120										100		250	95	1100		30	230

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B.TEQ = Carcinogenic PAHs (as B(a)P TEQ); OCP = Organochlorine pesticides; OPP = Organophosphorus pesticides; PCB = Polychlorinated biphenyls; CEC = cation exchange capacity; ACM = asbestos containing material; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc; [1]Based on NEPM HIL A Sites; [2]Based on NEPM ACL and pH = 6.4/CEC = 5% (average); [1&2]Based on NEPM coarse-grained soils

Table F7: Results of Material Sample Analysis

Sample Location	Approximate Depth	Material Description	Asbestos Detections
C27	0.1 m	Fibre cement sheeting (172mm x 96mm x 5mm)	Chrysotile, Amosite
C34	0.1 m	Fibre cement fragments	Chrysotile
C41	0.1 m	Fibre cement sheeting (55mm x 30mm x 5mm)	Chrysotile
C47	0.4 m	Fibre cement sheeting (50mm x 32mm x 5mm)	Chrysotile
C60	0.1 m	Fibre cement sheeting (60mm x 50mm x 5mm)	Chrysotile, Amosite

Table F8: Contaminant Concentrations in Groundwater

Sample/Date	B	T	E	X	F1	F2	C_{10}-C_{36}	+PAH	B(a)P	Napth.	+OCP	+PCB	Phenol	PFOS	PFOA	PFOS+ PFHxS	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
GW2/15032018	<1	<1	<1	<3	<10	<50	<250	NIL	<1	<1	NIL	NIL	<50	<0.01	<0.01	0.11	1	<0.1	<1	11	<1	<0.05	5	29

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B(a)P = Benzo(a)pyrene; OCP = Organochlorine pesticides; PCB = Polychlorinated biphenyls; PFOS/PFOA/PFHxS = per- and poly-fluoroalkyl substances; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc

Table F9: Adopted Comparative Criteria for Groundwater

Sample/Date	B	T	E	X	F1	F2	C_{10}-C_{36}	+PAH	B(a)P	Napth.	+OCP	+PCB	Phenol	PFOS	PFOA	PFOS+ PFHxS	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
NEPM GILs	950			550						16	Various	Various	320				24	0.2	27	1.4	3.4	0.06	11	8
NEPM HSLs	5000				6000																			
PFAS NEMP														0.13[1]	220[1]	0.7[2]								

Notes: B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene; Napth. = Naphthalene; F1 = (C_6 – C_{10}) – BTEX; F2 = (C_{11} – C_{16}) – Naphthalene; +PAH = Positive polycyclic aromatic hydrocarbons; B(a)P = Benzo(a)pyrene; OCP = Organochlorine pesticides; PCB = Polychlorinated biphenyls; PFOS/PFOA/PFHxS = per- and poly-fluoroalkyl substances; As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead; Hg = Mercury; Ni = Nickel; Zn = Zinc

[1]Based on 95% protection of freshwater species; [2]Based on recreational water quality

Appendix G

Detailed Laboratory Test Results

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 184027

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**85644.04, Richmond**
Number of Samples	52 Soil
Date samples received	29/01/2018
Date completed instructions received	29/01/2018

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	05/02/2018
Date of Issue	05/02/2018

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Matt Tang, Lucy Zhu
Authorised by Asbestos Approved Signatory: Lulu Scott

Results Approved By
Dragana Tomas, Senior Chemist
Long Pham, Team Leader, Metals
Lulu Scott, Asbestos Supervisor
Nick Sarlamis, Inorganics Supervisor
Paul Ching, Senior Analyst
Priya Samarawickrama, Senior Chemist
Steven Luong, Senior Chemist

Authorised By

David Springer, General Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	116	114	120	114	112

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	116	115	116	115	117

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	112	114	118	116	111

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	117	111	110	119	114

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	114	114	9.8	10	10

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	11	11	11	11	10

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	9.2	114	120	119	117

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	112	113	117	109	112

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	112	114	116	113	119

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date extracted	-	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	119	113

svTRH (C10-C40) in Soil						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	150
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	150
Surrogate o-Terphenyl	%	88	87	89	88	89

svTRH (C10-C40) in Soil						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	89	87	87	87	88

svTRH (C10-C40) in Soil						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	87	86	85	86	87

svTRH (C10-C40) in Soil						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	87	88	86	88	88

svTRH (C10-C40) in Soil						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	87	86	87	86	87

svTRH (C10-C40) in Soil						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	94	92	94	92	92

svTRH (C10-C40) in Soil						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	88	92	93	94	93

svTRH (C10-C40) in Soil						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	95	92	92	88	90

svTRH (C10-C40) in Soil						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	89	90	88	85	88

svTRH (C10-C40) in Soil			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date extracted	-	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	88	88

PAHs in Soil						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	0.2	0.8
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	0.5	1.4
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.5	1.4
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	0.6
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.2	0.6
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.4	1
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.2	0.60
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.1	0.3
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.2	0.4
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	2.5	7.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.9
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.9
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.9
Surrogate p-Terphenyl-d14	%	114	108	110	109	109

PAHs in Soil						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.4	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	109	111	108	109	108

PAHs in Soil						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	107	110	106	111	111

PAHs in Soil						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	110	110	112	112	110

PAHs in Soil						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	110	111	113	112	112

PAHs in Soil						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.5
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.8
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.8
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.5
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.3
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	4.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	110	111	111	109	108

PAHs in Soil						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	110	111	114	109	112

PAHs in Soil						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.64	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	105	124	114	107	110

PAHs in Soil						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	112	113	113	109	109

PAHs in Soil			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date extracted	-	31/01/2018	31/01/2018
Date analysed	-	31/01/2018	31/01/2018
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	112	111

Organochlorine Pesticides in soil						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	2	1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	1	0.3
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	0.4	0.3
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	3.4	1.6
Surrogate TCMX	%	91	95	95	95	95

Organochlorine Pesticides in soil						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	95	93	95	96

Organochlorine Pesticides in soil						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	95	95	95	96

Organochlorine Pesticides in soil						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	95	96	96	96

Organochlorine Pesticides in soil						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	96	95	95	95

Organochlorine Pesticides in soil						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	96	98	98	100

Organochlorine Pesticides in soil						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	95	96	96	95

Organochlorine Pesticides in soil						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	31/01/2018	31/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	96	93	95	91

Organochlorine Pesticides in soil						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	104	100	102	102

Organochlorine Pesticides in soil			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date extracted	-	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	102

Organophosphorus Pesticides						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	91	95	95	95	95

Organophosphorus Pesticides						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	95	93	95	96

Organophosphorus Pesticides						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	95	95	95	96

Organophosphorus Pesticides						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	95	96	96	96

Organophosphorus Pesticides						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	96	95	95	95

Organophosphorus Pesticides						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	96	98	98	100

Organophosphorus Pesticides						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	95	96	96	95

Organophosphorus Pesticides						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	31/01/2018	31/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	95	96	93	95	91

Organophosphorus Pesticides						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	93	104	100	102	102

Organophosphorus Pesticides			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date extracted	-	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Surrogate TCMX	%	102	102

PCBs in Soil						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	91	95	95	95	95

PCBs in Soil						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	95	93	95	96

PCBs in Soil						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	93	95	95	95	96

PCBs in Soil						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	95	96	96	96

PCBs in Soil						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	96	95	95	95

PCBs in Soil						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	96	98	98	100

PCBs in Soil						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	95	96	96	95

PCBs in Soil						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	30/01/2018	30/01/2018	30/01/2018	31/01/2018	31/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	96	93	95	91

PCBs in Soil						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	31/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	93	104	100	102	102

PCBs in Soil			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date extracted	-	30/01/2018	30/01/2018
Date analysed	-	02/02/2018	02/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	102	102

Acid Extractable metals in soil						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	28	20
Cadmium	mg/kg	<0.4	<0.4	<0.4	2	3
Chromium	mg/kg	12	8	2	33	25
Copper	mg/kg	3	17	<1	290	380
Lead	mg/kg	10	170	4	1,700	1,000
Mercury	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Nickel	mg/kg	4	5	1	29	24
Zinc	mg/kg	5	400	34	2,400	3,700

Acid Extractable metals in soil						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	4	3	3	3	3
Copper	mg/kg	7	1	1	<1	<1
Lead	mg/kg	100	13	4	4	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	2	2	1	1
Zinc	mg/kg	75	12	6	3	1

Acid Extractable metals in soil						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	4	2	3	2
Copper	mg/kg	<1	<1	<1	1	<1
Lead	mg/kg	2	5	4	11	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	2	2	2	3
Zinc	mg/kg	2	5	2	5	<1

Acid Extractable metals in soil						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	4	2	2	2	4
Copper	mg/kg	<1	<1	<1	<1	<1
Lead	mg/kg	2	5	4	4	3
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	<1	<1	<1	1
Zinc	mg/kg	<1	4	3	3	7

Acid Extractable metals in soil						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	2	2	2	2
Copper	mg/kg	2	<1	<1	<1	2
Lead	mg/kg	6	5	3	1	6
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	<1	2	2
Zinc	mg/kg	17	4	2	<1	18

Acid Extractable metals in soil						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	4	2	1	1	2
Copper	mg/kg	3	<1	<1	2	3
Lead	mg/kg	9	3	3	40	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	3	<1	1	2
Zinc	mg/kg	18	3	4	6	18

Acid Extractable metals in soil						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	2	2	2	1
Copper	mg/kg	3	<1	2	<1	1
Lead	mg/kg	4	3	7	2	12
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	2	1	4	<1
Zinc	mg/kg	4	7	6	<1	5

Acid Extractable metals in soil						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	5	3	2	2	2
Copper	mg/kg	27	1	<1	1	<1
Lead	mg/kg	100	5	4	3	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	15	3	<1	3	1
Zinc	mg/kg	45	4	3	4	3

Acid Extractable metals in soil						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	1	2	1	3	3
Copper	mg/kg	<1	<1	<1	2	3
Lead	mg/kg	4	4	8	21	13
Mercury	mg/kg	<0.1	<0.1	<0.1	1.7	1.4
Nickel	mg/kg	<1	1	<1	1	5
Zinc	mg/kg	3	4	3	9	12

Acid Extractable metals in soil				
Our Reference		184027-47	184027-49	184027-53
Your Reference	UNITS	BD2	BD3	C8 - [TRIPLICATE]
Depth		-	-	0.4-0.5
Date Sampled		17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018
Arsenic	mg/kg	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	4	2	13
Copper	mg/kg	<1	<1	3
Lead	mg/kg	3	4	8
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	4
Zinc	mg/kg	<1	7	5

Misc Soil - Inorg						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date prepared	-	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5

Misc Inorg - Soil						
Our Reference		184027-3	184027-10	184027-16	184027-24	184027-29
Your Reference	UNITS	C18	C75	C88	C106	C114
Depth		0.4-0.5	0.4-0.5	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		18/01/2018	17/01/2018	17/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
pH 1:5 soil:water	pH Units	7.8	6.3	6.5	6.2	5.8

Misc Inorg - Soil		
Our Reference		184027-37
Your Reference	UNITS	C123
Depth		0.9-1.0
Date Sampled		19/01/2018
Type of sample		Soil
Date prepared	-	30/01/2018
Date analysed	-	30/01/2018
pH 1:5 soil:water	pH Units	7.3

Moisture						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	5.1	5.4	1.0	5.5	7.6

Moisture						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	2.3	3.2	2.0	3.9	1.7

Moisture						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	3.0	4.1	6.2	3.2	1.2

Moisture						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	2.0	2.5	4.0	3.1	1.2

Moisture						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	3.5	2.3	1.3	0.9	1.5

Moisture						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	2.9	2.9	0.8	0.99	3.0

Moisture						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	5.6	2.2	2.0	0.9	1.4

Moisture						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	6.3	2.8	3.3	6.4	1.3

Moisture						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018	31/01/2018	31/01/2018	31/01/2018
Moisture	%	3.9	2.6	2.5	4.6	2.8

Moisture			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date prepared	-	30/01/2018	30/01/2018
Date analysed	-	31/01/2018	31/01/2018
Moisture	%	2.1	4.4

Asbestos ID - soils						
Our Reference		184027-1	184027-2	184027-3	184027-4	184027-5
Your Reference	UNITS	C8	C17	C18	C27	C27
Depth		0.4-0.5	0-0.1	0.4-0.5	0.9-1.0	1.4-1.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	18/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 50g	Approx. 35g	Approx. 30g	Approx. 30g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-6	184027-7	184027-8	184027-9	184027-10
Your Reference	UNITS	C43	C56	C61	C71	C75
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		18/01/2018	18/01/2018	18/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 55g	Approx. 40g	Approx. 50g	Approx. 45g	Approx. 60g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-11	184027-12	184027-13	184027-14	184027-15
Your Reference	UNITS	C76	C79	C80	C83	C84
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 30g	Approx. 30g	Approx. 30g	Approx. 40g	Approx. 35g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-16	184027-17	184027-18	184027-19	184027-20
Your Reference	UNITS	C88	C89	C90	C95	C101
Depth		0.4-0.5	0-0.1	0-0.1	0-0.1	0.4-0.5
Date Sampled		17/01/2018	18/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 55g	Approx. 40g	Approx. 45g	Approx. 35g	Approx. 40g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-21	184027-22	184027-23	184027-24	184027-25
Your Reference	UNITS	C102	C103	C105	C106	C108
Depth		0-0.1	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	17/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 50g	Approx. 20g	Approx. 50g	Approx. 60g	Approx. 45g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-26	184027-27	184027-28	184027-29	184027-30
Your Reference	UNITS	C109	C110	C113	C114	C115
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	18/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 40g	Approx. 25g	Approx. 45g	Approx. 45g	Approx. 45g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-31	184027-32	184027-33	184027-34	184027-35
Your Reference	UNITS	C116	C117	C119	C120	C121
Depth		0.9-1.0	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		18/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 30g	Approx. 30g	Approx. 30g	Approx. 45g	Approx. 40g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-36	184027-37	184027-38	184027-39	184027-40
Your Reference	UNITS	C122	C123	C124	C125	C126
Depth		0.1-0.2	0.9-1.0	0-0.1	0.4-0.5	0-0.1
Date Sampled		19/01/2018	19/01/2018	19/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 25g	Approx. 30g	Approx. 40g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown sandy soil	Brown sandy soil	Brown sandy soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184027-41	184027-42	184027-43	184027-44	184027-45
Your Reference	UNITS	C127	C128	C129	C130	BD5
Depth		0-0.1	0-0.1	0-0.1	0-0.1	-
Date Sampled		17/01/2018	19/01/2018	17/01/2018	17/01/2018	18/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 35g	Approx. 40g	Approx. 35g	Approx. 20g	Approx. 30g
Sample Description	-	Brown sandy soil	Brown sandy soil	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils			
Our Reference		184027-47	184027-49
Your Reference	UNITS	BD2	BD3
Depth		-	-
Date Sampled		17/01/2018	17/01/2018
Type of sample		Soil	Soil
Date analysed	-	02/02/2018	02/02/2018
Sample mass tested	g	Approx. 20g	Approx. 20g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected

Asbestos ID - materials		
Our Reference		184027-50
Your Reference	UNITS	C27
Depth		-
Date Sampled		18/01/2018
Type of sample		Soil
Date analysed	-	02/02/2018
Mass / Dimension of Sample	-	172x96x5mm
Sample Description	-	Grey compressed fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected Amosite asbestos detected

CEC						
Our Reference		184027-3	184027-10	184027-16	184027-24	184027-29
Your Reference	UNITS	C18	C75	C88	C106	C114
Depth		0.4-0.5	0.4-0.5	0.4-0.5	0.4-0.5	0.4-0.5
Date Sampled		18/01/2018	17/01/2018	17/01/2018	19/01/2018	19/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Date analysed	-	30/01/2018	30/01/2018	30/01/2018	30/01/2018	30/01/2018
Exchangeable Ca	meq/100g	0.6	0.1	0.4	0.3	0.4
Exchangeable K	meq/100g	<0.1	<0.1	<0.1	<0.1	<0.1
Exchangeable Mg	meq/100g	0.18	<0.1	<0.1	<0.1	0.12
Exchangeable Na	meq/100g	<0.1	<0.1	<0.1	<0.1	<0.1
Cation Exchange Capacity	meq/100g	<1	<1	<1	<1	<1

CEC		
Our Reference		184027-37
Your Reference	UNITS	C123
Depth		0.9-1.0
Date Sampled		19/01/2018
Type of sample		Soil
Date prepared	-	30/01/2018
Date analysed	-	30/01/2018
Exchangeable Ca	meq/100g	0.8
Exchangeable K	meq/100g	0.2
Exchangeable Mg	meq/100g	0.20
Exchangeable Na	meq/100g	<0.1
Cation Exchange Capacity	meq/100g	1.2

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-009	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-AES analytical finish.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
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-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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	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. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap 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-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. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date extracted	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			31/01/2018	1	31/01/2018	31/01/2018		31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	91	103
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	91	103
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	75	86
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	92	102
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	94	108
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	97	109
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	97	108
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	117	1	116	115	1	129	114

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date extracted	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	11	31/01/2018	31/01/2018		31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	11	<25	<25	0	91	107
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	11	<25	<25	0	91	107
Benzene	mg/kg	0.2	Org-016	[NT]	11	<0.2	<0.2	0	73	90
Toluene	mg/kg	0.5	Org-016	[NT]	11	<0.5	<0.5	0	90	106
Ethylbenzene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	96	111
m+p-xylene	mg/kg	2	Org-016	[NT]	11	<2	<2	0	98	113
o-Xylene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	99	112
naphthalene	mg/kg	1	Org-014	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	11	112	119	6	121	117

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date extracted	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	21	31/01/2018	31/01/2018		31/01/2018	31/01/2018
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	21	<25	<25	0	92	111
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	21	<25	<25	0	92	111
Benzene	mg/kg	0.2	Org-016	[NT]	21	<0.2	<0.2	0	72	94
Toluene	mg/kg	0.5	Org-016	[NT]	21	<0.5	<0.5	0	88	110
Ethylbenzene	mg/kg	1	Org-016	[NT]	21	<1	<1	0	98	116
m+p-xylene	mg/kg	2	Org-016	[NT]	21	<2	<2	0	101	118
o-Xylene	mg/kg	1	Org-016	[NT]	21	<1	<1	0	101	117
naphthalene	mg/kg	1	Org-014	[NT]	21	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	21	114	119	4	118	123

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	31/01/2018	31/01/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	31	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	31	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	31	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	31	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	31	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	31	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	31	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	31	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	31	9.2	10	8	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	41	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	41	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	41	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	41	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	41	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	41	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	41	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	41	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	41	112	112	0	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date extracted	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			31/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	121	120
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	111	109
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	108	73
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	121	120
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	111	109
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	108	73
Surrogate o-Terphenyl	%		Org-003	86	1	88	86	2	92	87

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date extracted	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	11	31/01/2018	31/01/2018		30/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	113	117
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	108	115
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	108	99
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	113	117
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	108	115
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	108	99
Surrogate o-Terphenyl	%		Org-003	[NT]	11	87	86	1	92	86

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date extracted	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	21	31/01/2018	31/01/2018		31/01/2018	31/01/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	21	<50	<50	0	124	129
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	115	120
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	108	105
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	21	<50	<50	0	124	129
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	115	120
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	108	105
Surrogate o-Terphenyl	%		Org-003	[NT]	21	87	87	0	94	90

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	31/01/2018	31/01/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	31	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	31	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	31	88	88	0	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	41	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	41	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	41	89	89	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date extracted	-			31/01/2018	1	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Date analysed	-			31/01/2018	1	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	90	81
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	91	86
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	101	91
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	97	88
Pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	121	108
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	92	87
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	<0.05	<0.05	0	92	81
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	112	1	114	107	6	104	105

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date extracted	-			[NT]	11	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Date analysed	-			[NT]	11	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Naphthalene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	89	83
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	92	91
Phenanthrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	100	94
Anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	97	91
Pyrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	121	112
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	90	90
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	11	<0.05	<0.05	0	87	84
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	11	107	112	5	105	107

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date extracted	-			[NT]	21	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Date analysed	-			[NT]	21	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Naphthalene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	89	84
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	94	90
Phenanthrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	100	94
Anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	97	92
Pyrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	121	115
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	91	91
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	21	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	21	<0.05	<0.05	0	86	86
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	21	110	112	2	105	107

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	31/01/2018	31/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	31/01/2018	31/01/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	31	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	31	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	31	110	106	4	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	41	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	41	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	41	112	112	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date extracted	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	101
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	94	97
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	81	77
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	108	112
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	106	109
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	107	110
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	109	111
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	119	108
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	102
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	129	118
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	2.0	1	91	95	4	113	119

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date extracted	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	11	02/02/2018	02/02/2018		02/02/2018	02/02/2018
HCB	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	92	94
gamma-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	91	92
Heptachlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	104	106
delta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	101	101
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	96	97
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	97	98
Dieldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	95	96
Endrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	96	99
pp-DDD	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	64	65
Endosulfan II	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	111	114
Methoxychlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	11	93	96	3	118	120

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date extracted	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	21	02/02/2018	02/02/2018		02/02/2018	02/02/2018
HCB	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	124	99
gamma-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	124	97
Heptachlor	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	129	102
delta-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	135	106
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	131	102
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	133	104
Dieldrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	125	100
Endrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	130	102
pp-DDD	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	125	97
Endosulfan II	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	135	121
Methoxychlor	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	21	95	98	3	100	124

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	02/02/2018	02/02/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	31	95	95	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	02/02/2018	02/02/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	41	93	93	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date extracted	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	118	97
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	115	71
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	105	68
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	85	101
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	130	78
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	88	106
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	86	115
Surrogate TCMX	%		Org-008	2.0	1	91	95	4	113	119

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date extracted	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	11	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	101	77
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	82	107
Dimethoate	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	85	110
Fenitrothion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	72	92
Malathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	89	117
Parathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	78	98
Ronnel	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	78	105
Surrogate TCMX	%		Org-008	[NT]	11	93	96	3	118	120

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date extracted	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	21	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	120	116
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	92	124
Dimethoate	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	102	123
Fenitrothion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	81	100
Malathion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	101	132
Parathion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	89	103
Ronnel	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	91	115
Surrogate TCMX	%		Org-008	[NT]	21	95	98	3	100	124

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	02/02/2018	02/02/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	31	95	95	0	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	02/02/2018	02/02/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	41	93	93	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date extracted	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	95	129
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	2.0	1	91	95	4	113	119

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date extracted	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	11	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	110	68
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	11	93	96	3	118	120

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date extracted	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	21	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	125	126
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	21	95	98	3	100	124

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	02/02/2018	02/02/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	31	95	95	0	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	02/02/2018	02/02/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	41	93	93	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date prepared	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			30/01/2018	1	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	113	97
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	102	90
Chromium	mg/kg	1	Metals-020	<1	1	12	12	0	107	95
Copper	mg/kg	1	Metals-020	<1	1	3	16	137	109	#
Lead	mg/kg	1	Metals-020	<1	1	10	25	86	107	99
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	112	112
Nickel	mg/kg	1	Metals-020	<1	1	4	4	0	110	102
Zinc	mg/kg	1	Metals-020	<1	1	5	23	129	105	83

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date prepared	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	11	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Arsenic	mg/kg	4	Metals-020	[NT]	11	<4	<4	0	111	102
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	101	105
Chromium	mg/kg	1	Metals-020	[NT]	11	3	3	0	108	106
Copper	mg/kg	1	Metals-020	[NT]	11	<1	<1	0	112	108
Lead	mg/kg	1	Metals-020	[NT]	11	2	3	40	108	109
Mercury	mg/kg	0.1	Metals-021	[NT]	11	<0.1	<0.1	0	109	114
Nickel	mg/kg	1	Metals-020	[NT]	11	1	1	0	111	113
Zinc	mg/kg	1	Metals-020	[NT]	11	2	1	67	103	102

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date prepared	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Date analysed	-			[NT]	21	30/01/2018	30/01/2018		30/01/2018	30/01/2018
Arsenic	mg/kg	4	Metals-020	[NT]	21	<4	<4	0	107	98
Cadmium	mg/kg	0.4	Metals-020	[NT]	21	<0.4	<0.4	0	96	99
Chromium	mg/kg	1	Metals-020	[NT]	21	2	2	0	103	101
Copper	mg/kg	1	Metals-020	[NT]	21	2	2	0	107	107
Lead	mg/kg	1	Metals-020	[NT]	21	6	6	0	102	104
Mercury	mg/kg	0.1	Metals-021	[NT]	21	<0.1	<0.1	0	107	115
Nickel	mg/kg	1	Metals-020	[NT]	21	1	1	0	105	107
Zinc	mg/kg	1	Metals-020	[NT]	21	17	16	6	97	96

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	31	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	31	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	31	3	3	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	31	3	<1	100	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	31	4	3	29	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	31	4	2	67	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	31	4	2	67	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	30/01/2018	30/01/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	41	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	41	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	41	1	1	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	41	<1	<1	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	41	4	5	22	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	41	<1	<1	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	41	3	3	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	184027-2
Date prepared	-			31/01/2018	1	30/01/2018	30/01/2018		31/01/2018	31/01/2018
Date analysed	-			31/01/2018	1	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	101	102

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	184027-22
Date prepared	-			[NT]	11	30/01/2018	30/01/2018		31/01/2018	31/01/2018
Date analysed	-			[NT]	11	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	11	<5	<5	0	100	97

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184027-42
Date prepared	-			[NT]	21	30/01/2018	30/01/2018		31/01/2018	31/01/2018
Date analysed	-			[NT]	21	31/01/2018	31/01/2018		31/01/2018	31/01/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	21	<5	<5	0	99	101

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	31	31/01/2018	31/01/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	31	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	30/01/2018	30/01/2018		[NT]	[NT]
Date analysed	-			[NT]	41	31/01/2018	31/01/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	41	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-			30/01/2018	3	30/01/2018	30/01/2018		30/01/2018	[NT]
Date analysed	-			30/01/2018	3	30/01/2018	30/01/2018		30/01/2018	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	3	7.8	7.4	5	101	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-			30/01/2018	3	30/01/2018	30/01/2018		30/01/2018	[NT]
Date analysed	-			30/01/2018	3	30/01/2018	30/01/2018		30/01/2018	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-009	<0.1	3	0.6	0.6	0	99	[NT]
Exchangeable K	meq/100g	0.1	Metals-009	<0.1	3	<0.1	<0.1	0	106	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-009	<0.1	3	0.18	0.20	11	96	[NT]
Exchangeable Na	meq/100g	0.1	Metals-009	<0.1	3	<0.1	<0.1	0	97	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics 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.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 184027-1 for Cu, Pb and Zn. Therefore a triplicate result has been issued as laboratory sample number 184027-53.

Acid Extractable Metals in Soil:
Percent recovery is not possible to report due to the inhomogeneous nature of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos: Excessive sample volumes were provided for asbestos analysis.
A portion of the supplied samples were sub-sampled according to Envirolab procedures.
We cannot guarantee that these sub-samples are indicative of the entire sample.
Envirolab recommends supplying 40-50g (50mL) of sample in its own container as per AS4964-2004.
Note: Samples requested for asbestos testing were sub-sampled from bags provided by the client.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample.
Envirolab recommends supplying 40-50g of sample in its own container.
Note: Sample 184027-27 was sub-sampled from a jar provided by the client.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	85644.04, Richmond
Envirolab Reference	184027
Date Sample Received	29/01/2018
Date Instructions Received	29/01/2018
Date Results Expected to be Reported	05/02/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	52 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	20.9
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	pH1:5 soil:water	Asbestos ID - soils	Asbestos ID - materials	CEC	On Hold
C8-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C17-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C18-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C27-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C27-1.4-1.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C43-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C56-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C61-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C71-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C75-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C76-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C79-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C80-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C83-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C84-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C88-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C89-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C90-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C95-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C101-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C102-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C103-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C105-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C106-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C108-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C109-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C110-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C113-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C114-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C115-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C116-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C117-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	pH1:5 soil:water	Asbestos ID - soils	Asbestos ID - materials	CEC	On Hold
C119-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C120-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C121-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C122-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C123-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
C124-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C125-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C126-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C127-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C128-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C129-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C130-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓		✓			
BD5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
BT5	✓	✓	✓	✓	✓	✓	✓	✓		✓			
BD2	✓	✓	✓	✓	✓	✓	✓	✓		✓			
BT2	✓	✓	✓	✓	✓	✓	✓	✓		✓			
BD3	✓	✓	✓	✓	✓	✓	✓	✓		✓			
C27											✓		
TP81-0-0.1													✓
TP85-0-0.1													✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C8	0.4-0.5	1	18.1	S	Jar									
C17	0-0.1	2	"											
C18	0.4-0.5	3	"				✓							
C27	0.9-1.0	4	"											
C27	1.4-1.5	5	"											
C43	0-0.1	6	"											
C56	0-0.1	7	"											
C61	0.4-0.5	8	"											
C71	0-0.1	9	17.1											
C75	0.4-0.5	10	"				✓							
C76	0.4-0.5	11	"											
C79	0-0.1	12	"											

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 184027
Date Received: 29/1/18
Time Received: 12:40
Received by: MT
Temp: Cool/Ambient 20.9
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO Signed: PMO Date & Time: 25/1/18 Received By: MT EGS Date & Time: 29/1/18 12:40
Relinquished by: Signed: Date & Time: Received By: Date & Time:

P1/5

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
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To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C80	0-0.1	13	17.1	S	Jar									
C83	0.4-0.5	14	"											
C84	0-0.1	15	"											
C88	0.4-0.5	16	"				✓							
C89	0-0.1	17	18.1											
C90	0-0.1	18	17.1											
C95	0-0.1	19	"											
C101	0.4-0.5	20	18.1											
C102	0-0.1	21	"											
C103	0-0.1	22	17.1											
C105	0-0.1	23	19.1											
C106	0.4-0.5	24	"				✓							

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 25/1/18	Received By: MT EES	Date & Time: 28/1/18 12:40
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

P2/5

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
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To: Envirolab Services
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Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C108	0-0.1	25	19.1	S	Ja									
C109	0-0.1	26	18.1											
C110	0.4-0.5	27	"											
C113	0-0.1	28	19.1											
C114	0.4-0.5	29	"				✓							
C115	0-0.1	30	"											
C116	0.9-1.0	31	18.1											
C117	0.4-0.5	32	19.1											
C119	0-0.1	33	"											
C120	0.4-0.5	34	"											
C121	0-0.1	35	"											
C122	0.1-0.2	36	"											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 25/1/18	Received By: MT ES	Date & Time: 28/1/18 12:40
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

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CHAIN OF CUSTODY

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Project No: 85644.04 Sampler: LC
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Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C123	0.9-1.0	37	19.1	S	Jar		✓							
C124	0-0.1	38	"											
C125	0.4-0.5	39	"											
C126	0-0.1	40	"											
C127	0-0.1	41	17.1											
C128	0-0.1	42	19.1											
C129	0-0.1	~~43~~	17.1											
C130	0-0.1	44	"											
BD2 BT2	180118	NR	18.1											Please send 1 of the triplicate samples to EUROFINS
BD5 BT5	180118	45.46	"											
BD2 BT2	170118	47.48	17.1											
BD3 BT3	170118	49.~~50~~	"											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 25/1/18	Received By: MT EES	Date & Time: 29/1/18 12:40
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

Douglas Partners
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CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes								Notes
						ACM ID								
C27		50	18.1	Material	Bag	✓								Material ID
Extras.														
TP81	0-0.1	51												
TP85	0-0.1	52												

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 25/1/18	Received By:	Date & Time: 29/1/18 12:40
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

P5/5

Form COC Rev0/November 2006

Envirolab Services Pty Ltd
ABN 37 112 535 645
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 184207

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**85644.04, Richmond**
Number of Samples	75 soil, 4 MATERIAL
Date samples received	31/01/2018
Date completed instructions received	31/01/2018

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	08/02/2018
Date of Issue	07/02/2018

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Paul Ching, Lucy Zhu
Authorised by Asbestos Approved Signatory: Paul Ching

Results Approved By
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Nick Sarlamis, Inorganics Supervisor
Paul Ching, Senior Analyst

Authorised By

David Springer, General Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	104	108	110	100	102

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	101	98	100	105	107

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	96	99	87	99	95

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	101	96	99	114	106

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	107	116	114	113	112

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	102	112	119	102	113

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	114	106	112	112	115

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	111	110	109	107	109

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	124	120	114	124	125

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	125	122	108	128	128

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	125	121	124	126	128

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	118	122	129	131	126

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	124	122	119	124	132

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	124	113	127	124	128

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date extracted	-	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	128	126

svTRH (C10-C40) in Soil						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	03/02/2018	03/02/2018	03/02/2018	03/02/2018	03/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	100	101	99	89	99

svTRH (C10-C40) in Soil						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	03/02/2018	03/02/2018	03/02/2018	03/02/2018	03/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	99	98	99	99	98

svTRH (C10-C40) in Soil						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	03/02/2018	03/02/2018	03/02/2018	03/02/2018	03/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	98	98	88	87	87

svTRH (C10-C40) in Soil						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	03/02/2018	03/02/2018	03/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	88	86	88	93	93

svTRH (C10-C40) in Soil						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	93	94	93	93	91

svTRH (C10-C40) in Soil						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	92	90	92	92	91

svTRH (C10-C40) in Soil						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	92	92	92	90	97

svTRH (C10-C40) in Soil						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	94	97	97	96	98

svTRH (C10-C40) in Soil						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	05/02/2018	05/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	95	97	94	95	96

svTRH (C10-C40) in Soil						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	91	88	89	88	85

svTRH (C10-C40) in Soil						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	88	86	88	87	88

svTRH (C10-C40) in Soil						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	87	89	90	90	87

svTRH (C10-C40) in Soil						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	88	87	87	86	87

svTRH (C10-C40) in Soil						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018	04/02/2018	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	88	87	88	87	86

svTRH (C10-C40) in Soil			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date extracted	-	01/02/2018	01/02/2018
Date analysed	-	04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	87	87

PAHs in Soil						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	106	105	105	96	104

PAHs in Soil						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	104	105	105	93	92

PAHs in Soil						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	93	90	83	82	84

PAHs in Soil						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	85	86	85	86	114

PAHs in Soil						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.4
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	1.5
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	115	116	82	119	86

PAHs in Soil						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	1.0	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	2.0	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	1.9	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.5	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.8	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	1	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.89	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.6	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	0.6	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	10	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	1.2	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	1.2	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	1.2	<0.5
Surrogate p-Terphenyl-d14	%	114	84	88	116	92

PAHs in Soil						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	118	89	89	87	91

PAHs in Soil						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.7	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.9	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.3	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.5	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	1	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.61	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.5	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.5	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	4.9	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	0.8	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	0.8	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	0.8	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	118	82	86	83	73

PAHs in Soil						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.07	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.71	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	117	120	119	74	76

PAHs in Soil						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	106	76	75	75	75

PAHs in Soil						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	75	116	74	117	74

PAHs in Soil						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	121	73	73	74	75

PAHs in Soil						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	74	76	80	77	78

PAHs in Soil						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	83	75	76	77	77

PAHs in Soil			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date extracted	-	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	79	76

Organochlorine Pesticides in soil						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	92	92	81	90

Organochlorine Pesticides in soil						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	90	90	79	78

Organochlorine Pesticides in soil						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	78	77	69	69	69

Organochlorine Pesticides in soil						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	70	68	71	70	106

Organochlorine Pesticides in soil						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	86	83	87	113	112

Organochlorine Pesticides in soil						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.3	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Surrogate TCMX	%	88	88	115	93	70

Organochlorine Pesticides in soil						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	87	93	88	84	80

Organochlorine Pesticides in soil						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	77	92	83	99

Organochlorine Pesticides in soil						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	126	68	104	100

Organochlorine Pesticides in soil						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	119	105	112	99

Organochlorine Pesticides in soil						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	125	107	74	96

Organochlorine Pesticides in soil						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	115	120	80	99	109

Organochlorine Pesticides in soil						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	82	82	81	81	87

Organochlorine Pesticides in soil						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	82	83	84	84

Organochlorine Pesticides in soil			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date extracted	-	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1
Surrogate TCMX	%	84	82

Organophosphorus Pesticides						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	92	92	81	90

Organophosphorus Pesticides						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	92	90	90	79	78

Organophosphorus Pesticides						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	78	77	69	69	69

Organophosphorus Pesticides						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	70	68	71	70	106

Organophosphorus Pesticides						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	86	83	86	113	112

Organophosphorus Pesticides						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	88	115	93	70

Organophosphorus Pesticides						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	87	93	88	84	80

Organophosphorus Pesticides						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	85	77	92	83	99

Organophosphorus Pesticides						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	83	126	68	104	100

Organophosphorus Pesticides						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	79	119	105	112	99

Organophosphorus Pesticides						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	101	125	107	74	96

Organophosphorus Pesticides						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	115	120	80	99	109

Organophosphorus Pesticides						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	82	82	81	81	87

Organophosphorus Pesticides						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	88	82	83	84	84

Organophosphorus Pesticides			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date extracted	-	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Surrogate TCMX	%	84	82

PCBs in Soil						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	92	92	92	81	90

PCBs in Soil						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	92	90	90	79	78

PCBs in Soil						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	78	77	69	69	69

PCBs in Soil						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	70	68	71	70	106

PCBs in Soil						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	87	83	86	113	112

PCBs in Soil						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	88	88	115	93	70

PCBs in Soil						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	87	93	88	84	80

PCBs in Soil						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	85	77	92	83	99

PCBs in Soil						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	83	126	68	104	100

PCBs in Soil						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	79	119	105	112	99

PCBs in Soil						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	101	125	107	74	96

PCBs in Soil						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	115	120	80	99	109

PCBs in Soil						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	82	82	81	81	87

PCBs in Soil						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date extracted	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	88	82	83	84	84

PCBs in Soil			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date extracted	-	01/02/2018	01/02/2018
Date analysed	-	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	84	82

Acid Extractable metals in soil						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	2	2	3	3
Copper	mg/kg	<1	<1	<1	<1	3
Lead	mg/kg	2	4	3	1	19
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	<1	2	1
Zinc	mg/kg	<1	2	3	<1	7

Acid Extractable metals in soil						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	3	2	3	2
Copper	mg/kg	<1	<1	<1	<1	<1
Lead	mg/kg	4	1	3	2	3
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	2	<1	4	<1
Zinc	mg/kg	2	<1	2	2	3

Acid Extractable metals in soil						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	3	9	2	2
Copper	mg/kg	<1	<1	4	<1	<1
Lead	mg/kg	1	3	5	4	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	3	<1	<1
Zinc	mg/kg	<1	3	4	4	1

Acid Extractable metals in soil						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	3	2	3	4
Copper	mg/kg	<1	<1	<1	<1	15
Lead	mg/kg	3	2	3	2	98
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	<1	2	1	2	3
Zinc	mg/kg	2	2	2	<1	86

Acid Extractable metals in soil						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	0.6
Chromium	mg/kg	4	3	2	2	8
Copper	mg/kg	2	<1	<1	<1	47
Lead	mg/kg	9	4	2	9	510
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	6.3
Nickel	mg/kg	2	1	<1	<1	5
Zinc	mg/kg	7	3	2	3	290

Acid Extractable metals in soil						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	12	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	1	<0.4
Chromium	mg/kg	3	3	2	28	5
Copper	mg/kg	<1	<1	<1	82	16
Lead	mg/kg	3	2	5	530	42
Mercury	mg/kg	<0.1	<0.1	<0.1	0.7	<0.1
Nickel	mg/kg	1	2	<1	14	3
Zinc	mg/kg	2	1	3	730	160

Acid Extractable metals in soil						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	4	2	3	4
Copper	mg/kg	<1	<1	<1	<1	<1
Lead	mg/kg	5	4	3	2	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	3	<1	2	1
Zinc	mg/kg	7	4	3	2	3

Acid Extractable metals in soil						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	3	3	2	2
Copper	mg/kg	3	2	1	<1	3
Lead	mg/kg	38	36	4	2	81
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	1	2	2	1
Zinc	mg/kg	30	23	6	2	14

Acid Extractable metals in soil						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	5	<4	<4	<4	<4
Cadmium	mg/kg	3	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	4	12	4	2
Copper	mg/kg	26	1	3	2	<1
Lead	mg/kg	230	4	8	7	6
Mercury	mg/kg	0.5	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	2	3	3	1
Zinc	mg/kg	880	5	16	20	4

Acid Extractable metals in soil						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	11	4	7	2
Copper	mg/kg	<1	1	2	2	<1
Lead	mg/kg	3	6	6	6	1
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	3	3	2	2
Zinc	mg/kg	3	7	19	11	1

Acid Extractable metals in soil						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	4	4	3	8	3
Copper	mg/kg	2	3	2	<1	1
Lead	mg/kg	31	8	7	3	3
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	2	2	3	2
Zinc	mg/kg	15	18	17	3	4

Acid Extractable metals in soil						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	8	2	2	3
Copper	mg/kg	<1	2	<1	<1	<1
Lead	mg/kg	2	6	3	2	3
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	3	<1	3	2
Zinc	mg/kg	2	9	2	3	4

Acid Extractable metals in soil						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	3	2	4	2
Copper	mg/kg	<1	<1	<1	3	2
Lead	mg/kg	3	2	4	19	19
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	<1	2	<1	3	1
Zinc	mg/kg	5	2	5	43	7

Acid Extractable metals in soil						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	1	1	9	6	6
Copper	mg/kg	<1	<1	5	7	<1
Lead	mg/kg	1	3	14	6	3
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	3	<1	4	5	<1
Zinc	mg/kg	1	4	14	24	2

Acid Extractable metals in soil			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date prepared	-	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	3	3
Copper	mg/kg	4	<1
Lead	mg/kg	19	2
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	<1	5
Zinc	mg/kg	6	2

Misc Soil - Inorg						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date prepared	-	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5

Moisture						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.9	2.5	1.5	1	1.6

Moisture						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.4	2.1	1.5	2.0	1.8

Moisture						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	3.5	1.9	2.9	1.7	1.7

Moisture						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.5	1.3	1.5	0.8	4.8

Moisture						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	2.5	1.6	1.1	1.5	3.7

Moisture						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.6	1.7	1.5	4.8	3.0

Moisture						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.4	2.5	1.7	2.6	1.8

Moisture						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	4.0	1.3	1.8	1.7	1.3

Moisture						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	3.4	1.9	9.1	2.3	1.3

Moisture						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.8	3.7	2.4	3.3	3.6

Moisture						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	3.4	4.5	2.5	3.3	2.0

Moisture						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.9	3.2	1.6	1.9	2.3

Moisture						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.3	1.4	3.8	5.6	1.5

Moisture						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Moisture	%	1.2	3.2	1.5	0.8	1.4

Moisture			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date prepared	-	01/02/2018	01/02/2018
Date analysed	-	02/02/2018	02/02/2018
Moisture	%	1.4	1.0

Asbestos ID - soils						
Our Reference		184207-1	184207-2	184207-3	184207-4	184207-5
Your Reference	UNITS	C1	C5	C10	C11	C12
Depth		0.9-1.0	0-0.1	0-0.1	0.4-0.5	0-0.1
Date Sampled		24/01/2018	25/01/2018	25/01/2018	25/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 35g	Approx. 40g	Approx. 40g	Approx. 55g	Approx. 35g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-6	184207-7	184207-8	184207-9	184207-10
Your Reference	UNITS	C13	C14	C15	C19	C20
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		25/01/2018	23/01/2018	25/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 50g	Approx. 40g	Approx. 55g	Approx. 35g	Approx. 50g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-11	184207-12	184207-13	184207-14	184207-15
Your Reference	UNITS	C21	C22	C23	C25	C28
Depth		0.4-0.5	0-0.1	0.1-0.2	0-0.1	0.5-0.6
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 35g	Approx. 35g	Approx. 45g	Approx. 35g	Approx. 35g
Sample Description	-	Brown fine-grained soil & rocks	Brown fine-grained soil	Beige clayey soil & rocks	Brown fine-grained soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-16	184207-18	184207-19	184207-20	184207-21
Your Reference	UNITS	C29	C31	C32	C33	C34
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 40g	Approx. 40g	Approx. 45g	Approx. 45g	Approx. 50g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil & rocks	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-22	184207-23	184207-24	184207-25	184207-26
Your Reference	UNITS	C36	C38	C39	C40	C41
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		24/01/2018	23/01/2018	25/01/2018	25/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 30g	Approx. 30g	Approx. 35g	Approx. 45g	Approx. 35g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-27	184207-28	184207-29	184207-30	184207-31
Your Reference	UNITS	C44	C45	C46	C47	C48
Depth		0-0.1	0.4-0.5	0-0.1	0.4-0.5	0-0.1
Date Sampled		23/01/2018	25/01/2018	25/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 40g	Approx. 50g	Approx. 45g	Approx. 40g	Approx. 60g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Grey coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-32	184207-33	184207-34	184207-35	184207-36
Your Reference	UNITS	C49	C50	C51	C52	C53
Depth		0.4-0.5	0-0.1	0.0-0.5	0.4-0.5	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	25/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 50g	Approx. 60g	Approx. 50g	Approx. 25g	Approx. 40g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-37	184207-38	184207-39	184207-40	184207-41
Your Reference	UNITS	C54	C55	C57	C58	C59
Depth		0-0.1	0-0.1	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 50g	Approx. 45g	Approx. 30g	Approx. 35g	Approx. 45g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-42	184207-43	184207-44	184207-45	184207-46
Your Reference	UNITS	C60	C62	C63	C64	C65
Depth		0-0.1	0-0.1	0.3-0.4	0-0.1	0-0.1
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 25g	Approx. 35g	Approx. 40g	Approx. 45g	Approx. 40g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Orange clayey soil & rocks	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-47	184207-48	184207-49	184207-50	184207-51
Your Reference	UNITS	C66	C67	C68	C69	C70
Depth		0.4-0.5	0.4-0.5	0-0.1	0-0.1	0.4-0.5
Date Sampled		22/01/2018	24/01/2018	23/01/2018	23/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 40g	Approx. 50g	Approx. 40g	Approx. 30g	Approx. 25g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-52	184207-53	184207-54	184207-55	184207-56
Your Reference	UNITS	C72	C73	C74	C77	C78
Depth		0.1-0.2	0-0.1	0-0.1	0.4-0.5	0.2-0.3
Date Sampled		24/01/2018	23/01/2018	23/01/2018	24/01/2018	23/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 40g	Approx. 40g	Approx. 30g	Approx. 40g	Approx. 40g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-57	184207-58	184207-59	184207-60	184207-61
Your Reference	UNITS	C86	C87	C91	C92	C93
Depth		0.4-0.5	0-0.1	0-0.1	0.4-0.5	0.1-0.2
Date Sampled		22/01/2018	24/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 30g	Approx. 40g	Approx. 40g	Approx. 60g	Approx. 40g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-62	184207-63	184207-64	184207-65	184207-66
Your Reference	UNITS	C97	C98	C99	C100	C107
Depth		0-0.1	0.4+-0.5	0.4-0.5	0-0.1	0-0.1
Date Sampled		22/01/2018	22/01/2018	22/01/2018	24/01/2018	22/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 30g	Approx. 40g	Approx. 30g	Approx. 30g	Approx. 40g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils						
Our Reference		184207-67	184207-68	184207-69	184207-70	184207-75
Your Reference	UNITS	C111	C118	Stockpile 1	Stockpile 2	BD25
Depth		0.4-0.5	0-0.1	-	-	-
Date Sampled		22/01/2018	22/01/2018	23/01/2018	23/01/2018	25/01/2018
Type of sample		soil	soil	soil	soil	soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 30g	Approx. 35g	Approx. 45g	Approx. 35g	Approx. 35g
Sample Description	-	Beige sandy soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils			
Our Reference		184207-76	184207-77
Your Reference	UNITS	BD23	BD27
Depth		-	-
Date Sampled		25/01/2018	23/01/2018
Type of sample		soil	soil
Date analysed	-	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 35g	Approx. 40g
Sample Description	-	Brown fine-grained soil	Brown fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected

Misc Inorg - Soil						
Our Reference		184207-1	184207-18	184207-30	184207-41	184207-55
Your Reference	UNITS	C1	C31	C47	C59	C77
Depth		0.9-1.0	0.4-0.5	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		24/01/2018	25/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
Date analysed	-	01/02/2018	01/02/2018	01/02/2018	01/02/2018	01/02/2018
pH 1:5 soil:water	pH Units	6.1	5.4	7.4	6.4	6.6

Misc Inorg - Soil		
Our Reference		184207-65
Your Reference	UNITS	C100
Depth		0-0.1
Date Sampled		24/01/2018
Type of sample		soil
Date prepared	-	01/02/2018
Date analysed	-	01/02/2018
pH 1:5 soil:water	pH Units	5.5

CEC						
Our Reference		184207-1	184207-18	184207-30	184207-41	184207-55
Your Reference	UNITS	C1	C31	C47	C59	C77
Depth		0.9-1.0	0.4-0.5	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		24/01/2018	25/01/2018	22/01/2018	22/01/2018	24/01/2018
Type of sample		soil	soil	soil	soil	soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Exchangeable Ca	meq/100g	0.3	0.1	14	0.8	1
Exchangeable K	meq/100g	<0.1	<0.1	0.2	0.1	0.3
Exchangeable Mg	meq/100g	0.20	<0.1	0.65	0.22	2.2
Exchangeable Na	meq/100g	<0.1	<0.1	<0.1	<0.1	<0.1
Cation Exchange Capacity	meq/100g	<1	<1	15	1.1	3.5

CEC		
Our Reference		184207-65
Your Reference	UNITS	C100
Depth		0-0.1
Date Sampled		24/01/2018
Type of sample		soil
Date prepared	-	02/02/2018
Date analysed	-	02/02/2018
Exchangeable Ca	meq/100g	1.5
Exchangeable K	meq/100g	0.2
Exchangeable Mg	meq/100g	0.52
Exchangeable Na	meq/100g	<0.1
Cation Exchange Capacity	meq/100g	2.2

Asbestos ID - materials					
Our Reference		184207-71	184207-72	184207-73	184207-74
Your Reference	UNITS	C34	C41	C47	C60
Depth		-	-	-	-
Date Sampled		24/01/2018	24/01/2018	22/01/2018	22/01/2018
Type of sample		MATERIAL	MATERIAL	MATERIAL	MATERIAL
Date analysed	-	07/02/2018	07/02/2018	07/02/2018	07/02/2018
Mass / Dimension of Sample	-	Approx. 175g	55x30x5mm	50x32x5mm	60x50x5mm
Sample Description	-	Grey fibre cement fragments	Grey fibre cement material	Grey fibre cement material	Grey fibre cement material
Asbestos ID in materials	-	Chrysotile asbestos detected	Chrysotile asbestos detected	Chrysotile asbestos detected	Chrysotile asbestos detected Amosite asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-009	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-AES analytical finish.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
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-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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	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. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap 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-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. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date extracted	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			05/02/2018	1	02/02/2018	02/02/2018		05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	95	114
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	95	114
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	75	91
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	92	112
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	102	119
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	104	124
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	106	128
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	132	1	104	104	0	104	108

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date extracted	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	02/02/2018	02/02/2018		05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	11	<25	<25	0	89	88
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	11	<25	<25	0	89	88
Benzene	mg/kg	0.2	Org-016	[NT]	11	<0.2	<0.2	0	73	76
Toluene	mg/kg	0.5	Org-016	[NT]	11	<0.5	<0.5	0	87	87
Ethylbenzene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	96	93
m+p-xylene	mg/kg	2	Org-016	[NT]	11	<2	<2	0	95	91
o-Xylene	mg/kg	1	Org-016	[NT]	11	<1	<1	0	98	96
naphthalene	mg/kg	1	Org-014	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	11	96	110	14	112	110

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date extracted	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	02/02/2018	02/02/2018		05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	21	<25	<25	0	84	92
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	21	<25	<25	0	84	92
Benzene	mg/kg	0.2	Org-016	[NT]	21	<0.2	<0.2	0	72	79
Toluene	mg/kg	0.5	Org-016	[NT]	21	<0.5	<0.5	0	84	92
Ethylbenzene	mg/kg	1	Org-016	[NT]	21	<1	<1	0	90	98
m+p-xylene	mg/kg	2	Org-016	[NT]	21	<2	<2	0	88	95
o-Xylene	mg/kg	1	Org-016	[NT]	21	<1	<1	0	93	100
naphthalene	mg/kg	1	Org-014	[NT]	21	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	21	106	111	5	119	130

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date extracted	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	05/02/2018	05/02/2018		05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	31	<25	<25	0	86	79
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	31	<25	<25	0	86	79
Benzene	mg/kg	0.2	Org-016	[NT]	31	<0.2	<0.2	0	74	68
Toluene	mg/kg	0.5	Org-016	[NT]	31	<0.5	<0.5	0	87	79
Ethylbenzene	mg/kg	1	Org-016	[NT]	31	<1	<1	0	91	83
m+p-xylene	mg/kg	2	Org-016	[NT]	31	<2	<2	0	89	82
o-Xylene	mg/kg	1	Org-016	[NT]	31	<1	<1	0	94	86
naphthalene	mg/kg	1	Org-014	[NT]	31	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	31	113	111	2	124	111

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	[NT]
Date extracted	-			[NT]	41	01/02/2018	01/02/2018		01/02/2018	[NT]
Date analysed	-			[NT]	41	05/02/2018	05/02/2018		05/02/2018	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	41	<25	<25	0	89	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	41	<25	<25	0	89	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	41	<0.2	<0.2	0	76	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	41	<0.5	<0.5	0	90	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	41	<1	<1	0	93	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	41	<2	<2	0	92	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	41	<1	<1	0	96	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	41	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	41	109	114	4	128	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	05/02/2018	05/02/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	51	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	51	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	51	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	51	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	51	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	51	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	51	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	51	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	51	128	121	6	[NT]	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	05/02/2018	05/02/2018		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	[NT]	61	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	[NT]	61	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-016	[NT]	61	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-016	[NT]	61	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-016	[NT]	61	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-016	[NT]	61	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-016	[NT]	61	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-014	[NT]	61	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	[NT]	61	126	128	2	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date extracted	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			03/02/2018	1	03/02/2018	03/02/2018		04/02/2018	03/02/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	123	121
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	118	119
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	109	119
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	123	121
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	118	119
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	109	119
Surrogate o-Terphenyl	%		Org-003	87	1	100	98	2	112	101

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date extracted	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	03/02/2018	03/02/2018		04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	126	124
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	119	120
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	114	112
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	11	<50	<50	0	126	124
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	119	120
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	11	<100	<100	0	114	112
Surrogate o-Terphenyl	%		Org-003	[NT]	11	98	97	1	125	93

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date extracted	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	04/02/2018	04/02/2018		04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	21	<50	<50	0	128	127
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	119	125
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	108	98
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	21	<50	<50	0	128	127
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	119	125
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	21	<100	<100	0	108	98
Surrogate o-Terphenyl	%		Org-003	[NT]	21	93	93	0	122	95

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date extracted	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	04/02/2018	04/02/2018		04/02/2018	04/02/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	31	<50	<50	0	116	115
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	106	114
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	77	94
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	31	<50	<50	0	116	115
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	106	114
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	31	<100	<100	0	77	94
Surrogate o-Terphenyl	%		Org-003	[NT]	31	91	91	0	86	88

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-15	[NT]
Date extracted	-			[NT]	41	01/02/2018	01/02/2018		01/02/2018	[NT]
Date analysed	-			[NT]	41	04/02/2018	04/02/2018		04/02/2018	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	41	<50	<50	0	116	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	108	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	92	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	41	<50	<50	0	116	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	108	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	41	<100	<100	0	92	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	41	98	96	2	114	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	04/02/2018	04/02/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	51	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	51	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	51	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	51	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	51	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	51	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	51	85	88	3	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	04/02/2018	04/02/2018		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	[NT]	61	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	[NT]	61	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	[NT]	61	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	[NT]	61	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	[NT]	61	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	[NT]	61	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-003	[NT]	61	87	88	1	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date extracted	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	95	71
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	96	73
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	96	72
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	95	72
Pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	96	72
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	104	78
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	<0.05	<0.05	0	134	101
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	75	1	106	105	1	98	98

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date extracted	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Naphthalene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	87	85
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	90	98
Phenanthrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	89	86
Anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	86	83
Pyrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	87	85
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	102	96
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	11	<0.05	<0.05	0	107	85
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	11	93	96	3	122	118

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date extracted	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Naphthalene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	87	85
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	103	86
Phenanthrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	88	85
Anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	89	87
Pyrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	90	88
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	101	96
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	21	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	21	<0.05	<0.05	0	95	86
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	21	114	114	0	68	66

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date extracted	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Naphthalene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	89	86
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	125	135
Phenanthrene	mg/kg	0.1	Org-012	[NT]	31	<0.1	0.2	67	91	87
Anthracene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	31	<0.1	0.2	67	89	87
Pyrene	mg/kg	0.1	Org-012	[NT]	31	<0.1	0.2	67	112	104
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	31	<0.1	0.1	0	106	100
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	31	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	31	<0.05	0.07	33	98	89
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	31	92	115	22	78	73

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	41	05/02/2018	05/02/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	41	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	41	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	41	73	117	46	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	05/02/2018	05/02/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	51	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	51	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	51	75	97	26	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	05/02/2018	05/02/2018		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	[NT]	61	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	[NT]	61	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	[NT]	61	75	75	0	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date extracted	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	96	77
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	78
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	103	80
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	115	89
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	109	83
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	108	80
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	110	83
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	80
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	108	80
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	100	84
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	109	1	92	92	0	84	86

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date extracted	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	05/02/2018	05/02/2018		05/02/2018	05/02/2018
HCB	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	93	91
gamma-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	97	94
Heptachlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	96	90
delta-BHC	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	107	104
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	99	96
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	97	93
Dieldrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	98	122
Endrin	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	111	68
pp-DDD	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	79	77
Endosulfan II	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	105	96
Methoxychlor	mg/kg	0.1	Org-005	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	11	78	79	1	116	91

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date extracted	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	05/02/2018	05/02/2018		05/02/2018	05/02/2018
HCB	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	104	71
gamma-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	110	73
Heptachlor	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	94	91
delta-BHC	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	89.5	104
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	77	89
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	95	93
Dieldrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	110	132
Endrin	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	104	95
pp-DDD	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	100	95
Endosulfan II	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	69	117
Methoxychlor	mg/kg	0.1	Org-005	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	21	106	103	3	67	87

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date extracted	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	05/02/2018	05/02/2018		05/02/2018	05/02/2018
HCB	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	113	71
gamma-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	75	73
Heptachlor	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	94	84
delta-BHC	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	108	104
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	100	95
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	62	114
Dieldrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	74	112
Endrin	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	116	113
pp-DDD	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	104	91
Endosulfan II	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	70	66
Methoxychlor	mg/kg	0.1	Org-005	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	31	70	92	27	71	89

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	41	05/02/2018	05/02/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	41	99	82	19	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	05/02/2018	05/02/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	51	99	124	22	[NT]	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	05/02/2018	05/02/2018		[NT]	[NT]
HCB	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
gamma-BHC	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
delta-BHC	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Dieldrin	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Endrin	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Endosulfan II	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Methoxychlor	mg/kg	0.1	Org-005	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	[NT]	61	109	111	2	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date extracted	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	110	83
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	105	80
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	107	80
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	87	66
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	117	96
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	109	84
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	98	75
Surrogate TCMX	%		Org-008	109	1	92	92	0	84	86

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date extracted	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	100	93
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	109	97
Dimethoate	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	86	76
Fenitrothion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	77	68
Malathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	96	74
Parathion	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	99	94
Ronnel	mg/kg	0.1	Org-008	[NT]	11	<0.1	<0.1	0	91	87
Surrogate TCMX	%		Org-008	[NT]	11	78	79	1	116	91

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date extracted	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	124	96
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	93	82
Dimethoate	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	60	109
Fenitrothion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	80	75
Malathion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	109	96
Parathion	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	80	99
Ronnel	mg/kg	0.1	Org-008	[NT]	21	<0.1	<0.1	0	92	89
Surrogate TCMX	%		Org-008	[NT]	21	106	103	3	67	87

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date extracted	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	99	100
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	88	79
Dimethoate	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	61	103
Fenitrothion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	78	72
Malathion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	100	94
Parathion	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	104	97
Ronnel	mg/kg	0.1	Org-008	[NT]	31	<0.1	<0.1	0	95	91
Surrogate TCMX	%		Org-008	[NT]	31	70	92	27	71	89

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	41	05/02/2018	05/02/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	41	99	82	19	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	05/02/2018	05/02/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	51	99	124	22	[NT]	[NT]

QUALITY CONTROL: Organophosphorus Pesticides					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	05/02/2018	05/02/2018		[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Fenitrothion	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Malathion	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-008	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-008	[NT]	61	109	111	2	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date extracted	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	104.00	80.00
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	109	1	92	92	0	84	86

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date extracted	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	112.00	106.00
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	11	78	79	1	116	91

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date extracted	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	93.50	95.00
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	21	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	21	106	103	3	67	87

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date extracted	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	118.00	113.00
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	31	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	31	70	92	27	70.5	89

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	41	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	41	05/02/2018	05/02/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	41	99	82	19	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	05/02/2018	05/02/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	51	99	124	22	[NT]	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	05/02/2018	05/02/2018		[NT]	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	[NT]	61	109	111	2	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	184207-2
Date prepared	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	107	94
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	96	95
Chromium	mg/kg	1	Metals-020	<1	1	2	2	0	103	98
Copper	mg/kg	1	Metals-020	<1	1	<1	<1	0	109	103
Lead	mg/kg	1	Metals-020	<1	1	2	2	0	94	92
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	102	107
Nickel	mg/kg	1	Metals-020	<1	1	1	1	0	105	104
Zinc	mg/kg	1	Metals-020	<1	1	<1	<1	0	99	97

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date prepared	-			[NT]	11	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	11	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Arsenic	mg/kg	4	Metals-020	[NT]	11	<4	<4	0	105	94
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	93	92
Chromium	mg/kg	1	Metals-020	[NT]	11	3	4	29	101	102
Copper	mg/kg	1	Metals-020	[NT]	11	<1	<1	0	107	105
Lead	mg/kg	1	Metals-020	[NT]	11	1	2	67	92	90
Mercury	mg/kg	0.1	Metals-021	[NT]	11	<0.1	<0.1	0	109	108
Nickel	mg/kg	1	Metals-020	[NT]	11	1	1	0	103	102
Zinc	mg/kg	1	Metals-020	[NT]	11	<1	<1	0	97	94

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date prepared	-			[NT]	21	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	21	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Arsenic	mg/kg	4	Metals-020	[NT]	21	<4	<4	0	105	85
Cadmium	mg/kg	0.4	Metals-020	[NT]	21	<0.4	<0.4	0	94	78
Chromium	mg/kg	1	Metals-020	[NT]	21	4	4	0	101	83
Copper	mg/kg	1	Metals-020	[NT]	21	15	13	14	107	94
Lead	mg/kg	1	Metals-020	[NT]	21	98	110	12	92	#
Mercury	mg/kg	0.1	Metals-021	[NT]	21	0.1	0.1	0	108	116
Nickel	mg/kg	1	Metals-020	[NT]	21	3	3	0	103	87
Zinc	mg/kg	1	Metals-020	[NT]	21	86	77	11	98	#

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date prepared	-			[NT]	31	01/02/2018	01/02/2018		01/02/2018	01/02/2018
Date analysed	-			[NT]	31	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Arsenic	mg/kg	4	Metals-020	[NT]	31	<4	<4	0	104	96
Cadmium	mg/kg	0.4	Metals-020	[NT]	31	<0.4	<0.4	0	93	97
Chromium	mg/kg	1	Metals-020	[NT]	31	5	5	0	101	100
Copper	mg/kg	1	Metals-020	[NT]	31	16	18	12	107	107
Lead	mg/kg	1	Metals-020	[NT]	31	42	43	2	91	94
Mercury	mg/kg	0.1	Metals-021	[NT]	31	<0.1	<0.1	0	105	110
Nickel	mg/kg	1	Metals-020	[NT]	31	3	3	0	102	106
Zinc	mg/kg	1	Metals-020	[NT]	31	160	150	6	97	94

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	41	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	41	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	41	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	41	2	2	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	41	3	3	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	41	81	68	17	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	41	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	41	1	1	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	41	14	14	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	51	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	51	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	51	2	2	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	51	<1	<1	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	51	1	2	67	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	51	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	51	2	2	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	51	1	1	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	61	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	61	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	61	3	3	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	61	<1	<1	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	61	3	3	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	61	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	61	2	2	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	61	4	4	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	26	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	26	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	26	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	26	0.6	0.6	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	26	8	7	13	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	26	47	49	4	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	26	510	430	17	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	26	6.3	6.1	3	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	26	5	4	22	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	26	290	280	4	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	30	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	30	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	30	12	7	53	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	30	1	1	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	30	28	23	20	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	30	82	63	26	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	30	530	590	11	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	30	0.7	0.7	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	30	14	10	33	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	30	730	670	9	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	184207-2
Date prepared	-			02/02/2018	1	01/02/2018	01/02/2018		02/02/2018	02/02/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	101	96

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-12	184207-22
Date prepared	-			[NT]	11	01/02/2018	01/02/2018		02/02/2018	02/02/2018
Date analysed	-			[NT]	11	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	11	<5	<5	0	103	97

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-13	184207-42
Date prepared	-			[NT]	21	01/02/2018	01/02/2018		02/02/2018	02/02/2018
Date analysed	-			[NT]	21	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	21	<5	<5	0	103	101

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-14	184207-62
Date prepared	-			[NT]	31	01/02/2018	01/02/2018		02/02/2018	02/02/2018
Date analysed	-			[NT]	31	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	31	<5	<5	0	102	96

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	41	02/02/2018	02/02/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	41	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	51	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	51	02/02/2018	02/02/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	51	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	61	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	61	02/02/2018	02/02/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	61	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	75	01/02/2018	01/02/2018		[NT]	[NT]
Date analysed	-			[NT]	75	02/02/2018	02/02/2018		[NT]	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	[NT]	75	<5	<5	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	[NT]
Date analysed	-			01/02/2018	1	01/02/2018	01/02/2018		01/02/2018	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	1	6.1	6.2	2	101	[NT]

QUALITY CONTROL: CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	[NT]
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	[NT]
Exchangeable Ca	meq/100g	0.1	Metals-009	<0.1	1	0.3	0.3	0	99	[NT]
Exchangeable K	meq/100g	0.1	Metals-009	<0.1	1	<0.1	<0.1	0	105	[NT]
Exchangeable Mg	meq/100g	0.1	Metals-009	<0.1	1	0.20	0.23	14	97	[NT]
Exchangeable Na	meq/100g	0.1	Metals-009	<0.1	1	<0.1	<0.1	0	99	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics 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.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Acid Extractable metals in soil - # Percent recovery is not possible to report due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 184207-3, 16, 17, 53, 56, 75 to 77 were sub-sampled from jars and samples 184207-1, 2, 4 to 15, 18 to 52, 54, 55, 57 to 70 were sub-sampled from bags provided by the client.

Envirolab Services Pty Ltd
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SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	85644.04, Richmond
Envirolab Reference	184207
Date Sample Received	31/01/2018
Date Instructions Received	31/01/2018
Date Results Expected to be Reported	08/02/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	75 soil, 4 MATERIAL
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	21.3
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils	pH1:5 soil:water	CEC	Asbestos ID - materials	On Hold
C1-0.9-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
C5-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C10-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C11-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C12-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C13-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C14-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C15-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C19-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C20-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C21-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C22-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C23-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C25-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C28-0.5-0.6	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C29-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C30-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C31-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
C32-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C33-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C34-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C36-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C38-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C39-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C40-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C41-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C44-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C45-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C46-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C47-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
C48-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C49-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils	pH1:5 soil:water	CEC	Asbestos ID - materials	On Hold
C50-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C51-0.0-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C52-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C53-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C54-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C55-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C57-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C58-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C59-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
C60-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C62-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C63-0.3-0.4	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C64-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C65-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C66-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C67-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C68-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C69-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C70-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C72-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C73-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C74-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C77-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
C78-0.2-0.3	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C86-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C87-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C91-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C92-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C93-0.1-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C97-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C98-0.4+-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C99-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				

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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils	pH1:5 soil:water	CEC	Asbestos ID - materials	On Hold
C100-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
C107-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C111-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C118-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Stockpile 1	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Stockpile 2	✓	✓	✓	✓	✓	✓	✓	✓	✓				
C34												✓	
C41												✓	
C47												✓	
C60												✓	
BD25	✓	✓	✓	✓	✓	✓	✓	✓	✓				
BD23	✓	✓	✓	✓	✓	✓	✓	✓	✓				
BD27	✓	✓	✓	✓	✓	✓	✓	✓	✓				
TP47-0-0.1													✓
TP70-0-0.1													✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Douglas Partners
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CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Notes
C1	0.9-1.0	1	24.1	S	Jar		✓	
C5	0-0.1	2	25.1					
C10	0-0.1	3	"					
C11	0.4-0.5	4	"					
C12	0-0.1	5	"					
C13	0-0.1	6	"					
C14	0.4-0.5	7	23.1					
C15	0-0.1	8	25.1					
C19	0.4-0.5	9	23.1					
C20	0-0.1	10	"					
C21	0.4-0.5	11	"					
C22	0-0.1	12	25.1					

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 184207
Date Received: 31/1/18
Time Received: 14.30
Received by: RW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:
PMO	PMO	30/1/18	ELS Rebecca	31/1/18 14:30 RW
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

P1/7

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12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C23	0.1-0.2	13	25.1	S	Jar								
C25	0-0.1	14	"										
C28	0.5-0.6	15	24.1										
C29	0-0.1	16	23.1										
C30	0-0.1	17	"										
C31	0.4-0.5	18	25.1				✓						
C32	0-0.1	19	"										
C33	0.4-0.5	20	"										
C34	0-0.1	21	24.1										
C36	0-0.1	22	"										
C38	0-0.1	23	23.1										
C39	0.4-0.5	24	25.1										

Jar not received RW

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 30/1/18	Received By: RW	Date & Time: 31/1/18
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

P2/7

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Attn: Tania Notaras
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Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes								Notes
						Combo 8a	pH CEC							
C40	0-0.1	25	25.1	S	Jar									
C41	0-0.1	26	24.1											
C44	0-0.1	27	23.1											
C45	0.4-0.5	28	25.1											
C46	0-0.1	29	25.1											
C47	0.4-0.5	30	22.1				✓							
C48	0-0.1	31	24.1											
C49	0.4-0.5	32	22.1											
C50	0-0.1	33	24.1											
C51	0-0.05	34	23.1											
C52	0.4-0.5	35	25.1											
C53	0.4-0.5	36	22.1											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 30/1/18	Received By: RW	Date & Time: 31/1/18	
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

P3/7

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Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes								Notes
						Combo 8a	pH CEC							
C54	0-0.1	37	22.1	S	Jar									
C55	0-0.1	38	22.1											
C57	0.4-0.5	39	23.1											
C58	0-0.1	40	"											
C59	0-0.1	41	22.1				✓							
C60	0-0.1	42	"											
C62	0-0.1	43	24.1											
C63	0.3-0.4	44	23.1											
C64	0-0.1	45	"											
C65	0-0.1	46	22.1											
C66	0.4-0.5	47	"											
C67	0.4-0.5	48	24.1											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 30/1/18	Received By:	Date & Time: 31/1/18
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:

P4/7

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Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
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Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C68	0-0.1	49	23.1	S	Jar									
C69	0-0.1	50	"											
C70	0.4-0.5	51	"											
C72	0.1-0.2	52	24.1											
C73	0-0.1	53	23.1											
C74	0-0.1	54	"											
C77	0.4-0.5	55	24.1				✓							
C78	0.2-0.3	56	23.1											
C86	0.4-0.5	57	22.1											
C87	0-0.1	58	24.1											
C91	0-0.1	59	22.1											
C92	0.4-0.5	60	"											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 30/1/18	Received By: RW	Date & Time: 31/1/18	
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

P5/7

Form COC Rev0/November 2006

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CHAIN OF CUSTODY

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Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

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Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	pH CEC	Asbestos ID						Notes
C93	0.1-0.2	61	24.1	S	Jar									
C97	0-0.1	62	22.1											
C98	0.4-0.5	63	"											
C99	0.4-0.5	64	"											
C100	0-0.1	65	24.1				✓							
C107	0-0.1	66	22.1											
C111	0.4-0.5	67	"											
C118	0-0.1	68	"											
Stockpile 1	–	69	23.1											
Stockpile 2	–	70	"											
C34	–	71	24.1	Material	Bag			✓						Fragments
C41	–	72	"		Bag			✓						"

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 30/1/18	Received By:	Date & Time:	31/1/18
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

P6/7

Form COC Rev0/November 2006

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	Asbestos ID					Notes
C47	—	73	22·1	Material	Bag			✓					Fragments
C60	—	74	"					✓					"
BD25	250118	75	25·1	Soil	Jar								
BD23	250118	76	"										
BD17	230118	77	23·1										
BT25	250118	78	25·1										Send BT samples to Eurofins
BT23	250118	79	"										
BT17	230118	80	23·1										
extra TP47	0-0.1	78		S	Bag								
extra TP70	0-0.1	79		S	Bag								

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 30/1/18	Received By:	Date & Time: 31/1/18	
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

P 7/7

Form COC Rev0/November 2006

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 184329

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**85644.04, Richmond**
Number of Samples	2 Soil, 1 Water
Date samples received	01/02/2018
Date completed instructions received	01/02/2018

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.

Report Details

Date results requested by	08/02/2018
Date of Issue	06/02/2018

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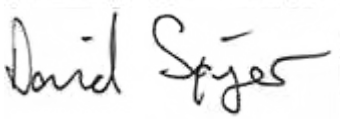
Results Approved By
Dragana Tomas, Senior Chemist
Steven Luong, Senior Chemist

Authorised By



David Springer, General Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		184329-1	184329-2
Your Reference	UNITS	TS	TB
Date Sampled		21/01/2018	21/01/2018
Type of sample		Soil	Soil
Date extracted	-	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018
Benzene	mg/kg	115%	<0.2
Toluene	mg/kg	119%	<0.5
Ethylbenzene	mg/kg	115%	<1
m+p-xylene	mg/kg	117%	<2
o-Xylene	mg/kg	117%	<1
Total +ve Xylenes	mg/kg	[NA]	<1
Surrogate aaa-Trifluorotoluene	%	116	101

Moisture		
Our Reference		184329-2
Your Reference	UNITS	TB
Date Sampled		21/01/2018
Type of sample		Soil
Date prepared	-	02/02/2018
Date analysed	-	05/02/2018
Moisture	%	0.2

vTRH(C6-C10)/BTEXN in Water		
Our Reference	UNITS	184329-3
Your Reference		R
Date Sampled		29/01/2018
Type of sample		Water
Date extracted	-	01/02/2018
Date analysed	-	02/02/2018
TRH C_6 - C_9	µg/L	39
TRH C_6 - C_{10}	µg/L	40
TRH C_6 - C_{10} less BTEX (F1)	µg/L	40
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	76
Surrogate toluene-d8	%	103
Surrogate 4-BFB	%	102

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Org-013	Water samples are analysed directly by purge and trap 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-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. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date extracted	-			02/02/2018	[NT]	[NT]	[NT]	[NT]	02/02/2018	[NT]
Date analysed	-			05/02/2018	[NT]	[NT]	[NT]	[NT]	05/02/2018	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	[NT]	[NT]	84	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	[NT]	[NT]	104	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	111	[NT]
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	100	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			01/02/2018	[NT]	[NT]	[NT]	[NT]	01/02/2018	[NT]
Date analysed	-			02/02/2018	[NT]	[NT]	[NT]	[NT]	02/02/2018	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	103	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	105	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	73	[NT]	[NT]	[NT]	[NT]	81	[NT]
Surrogate toluene-d8	%		Org-016	107	[NT]	[NT]	[NT]	[NT]	97	[NT]
Surrogate 4-BFB	%		Org-016	105	[NT]	[NT]	[NT]	[NT]	107	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics 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.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	85644.04, Richmond
Envirolab Reference	184329
Date Sample Received	01/02/2018
Date Instructions Received	01/02/2018
Date Results Expected to be Reported	08/02/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	2 Soil, 1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14.1
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	vTRH(C6-C10)/BTEXN in Water
TS	✓	
TB	✓	
R		✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes								Notes
						BTEX VTRH								
TS	–	1	21/1	S	Vial	|								
TB	–	2	"	S	|	|								
R	–	3	29/1	W	|	|								

ENVIROLAB GROUP
Job No: 184329
Date Received: 1/2/2018
Time Received: 14:05
Received by: PA
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None 14.1

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 31/1/18	Received By:	Date & Time:	
Relinquished by:	Signed:	Date & Time:	Received By: Reg	Date & Time: 1/2/2018 14:05	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 184337

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**85644.04, Richmond**
Number of Samples	9 Soil
Date samples received	01/02/2018
Date completed instructions received	01/02/2018

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	08/02/2018
Date of Issue	07/02/2018

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Asbestos Approved By
Analysed by Asbestos Approved Identifier: Lucy Zhu
Authorised by Asbestos Approved Signatory: Paul Ching

Results Approved By
Dragana Tomas, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Nick Sarlamis, Inorganics Supervisor
Paul Ching, Senior Analyst

Authorised By

David Springer, General Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	120	123	121	117	118

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	108	110	113	125

svTRH (C10-C40) in Soil						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	95	94	94	94	95

svTRH (C10-C40) in Soil					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50
Surrogate o-Terphenyl	%	95	93	94	95

PAHs in Soil						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	119	133	122	118	119

PAHs in Soil					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.2	0.2	<0.1	<0.1
Pyrene	mg/kg	0.2	0.2	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.08	0.07	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	0.56	0.4	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	120	118	118	120

Organochlorine Pesticides in soil						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	109	109	108	108	109

Organochlorine Pesticides in soil					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	108	108	108	109

Organophosphorus Pesticides						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	109	109	108	108	109

Organophosphorus Pesticides					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	108	108	108	109

PCBs in Soil						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	109	109	108	108	109

PCBs in Soil					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	108	108	108	109

Acid Extractable metals in soil						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	3	2	3	3	2
Copper	mg/kg	<1	<1	<1	<1	<1
Lead	mg/kg	2	4	2	5	2
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	1	<1	<1	1	1
Zinc	mg/kg	1	3	<1	3	<1

Acid Extractable metals in soil					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Arsenic	mg/kg	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	0.9	<0.4	<0.4
Chromium	mg/kg	5	12	4	4
Copper	mg/kg	11	63	22	<1
Lead	mg/kg	98	340	320	2
Mercury	mg/kg	<0.1	0.5	0.2	<0.1
Nickel	mg/kg	4	8	2	<1
Zinc	mg/kg	110	530	140	<1

Misc Soil - Inorg						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5

Moisture						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Moisture	%	0.6	1.5	1.3	2.8	2.0

Moisture					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	02/02/2018	02/02/2018	02/02/2018	02/02/2018
Date analysed	-	05/02/2018	05/02/2018	05/02/2018	05/02/2018
Moisture	%	2.9	4.1	2.5	0.8

Asbestos ID - soils						
Our Reference		184337-1	184337-2	184337-3	184337-4	184337-5
Your Reference	UNITS	C2	C3	C4	C6	C7
Depth		0.4-0.5	0-0.1	0.4-0.5	0-0.1	0.4-0.5
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 55g	Approx. 40g	Approx. 50g	Approx. 50g	Approx. 45g
Sample Description	-	Beige fine-grained soil	Beige fine-grained soil	Beige fine-grained soil	Beige fine-grained soil	Beige fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils					
Our Reference		184337-6	184337-7	184337-8	184337-9
Your Reference	UNITS	C26	C26	C35	BD26
Depth		0-0.1	0.4-0.5	0-0.1	-
Date Sampled		29/01/2018	29/01/2018	29/01/2018	29/01/2018
Type of sample		Soil	Soil	Soil	Soil
Date analysed	-	06/02/2018	06/02/2018	06/02/2018	06/02/2018
Sample mass tested	g	Approx. 40g	Approx. 45g	Approx. 40g	Approx. 45g
Sample Description	-	Beige fine-grained soil	Beige fine-grained soil	Beige fine-grained soil	Beige fine-grained soil
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibre detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
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-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. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

Method ID	Methodology Summary
Org-012	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. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap 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-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. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date extracted	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	104	102
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	104	102
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	89	85
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	105	101
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	109	108
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	109	108
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	115	112
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	114	1	120	119	1	123	119

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date extracted	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	120	127
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	<100	<100	0	117	122
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	<100	<100	0	108	90
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	120	127
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	<100	<100	0	117	122
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	<100	<100	0	108	90
Surrogate o-Terphenyl	%		Org-003	93	1	95	94	1	99	94

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date extracted	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Naphthalene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	91	92
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	93	94
Phenanthrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	91	93
Anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	90	95
Pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	90	96
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	97	97
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	1	<0.05	<0.05	0	91	90
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	121	1	119	125	5	110	117

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date extracted	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
HCB	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	98	100
gamma-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	103
Heptachlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	107	113
delta-BHC	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	112	119
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	104	111
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	104	108
Dieldrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	102	108
Endrin	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	101	90
pp-DDD	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	105	112
Endosulfan II	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	122	129
Methoxychlor	mg/kg	0.1	Org-005	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-005	110	1	109	114	4	108	110

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date extracted	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	100	111
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	103	104
Dimethoate	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	90	100
Fenitrothion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	73	82
Malathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	115	130
Parathion	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	98	107
Ronnel	mg/kg	0.1	Org-008	<0.1	1	<0.1	<0.1	0	93	99
Surrogate TCMX	%		Org-008	110	1	109	114	4	108	110

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date extracted	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			05/02/2018	1	05/02/2018	05/02/2018		05/02/2018	05/02/2018
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	102.00	103.00
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCLMX	%		Org-006	110	1	109	114	4	108	110

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date prepared	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	104	99
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	100	105
Chromium	mg/kg	1	Metals-020	<1	1	3	3	0	103	102
Copper	mg/kg	1	Metals-020	<1	1	<1	<1	0	100	102
Lead	mg/kg	1	Metals-020	<1	1	2	2	0	98	100
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	109	108
Nickel	mg/kg	1	Metals-020	<1	1	1	1	0	95	100
Zinc	mg/kg	1	Metals-020	<1	1	1	1	0	98	101

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	7	02/02/2018	02/02/2018		[NT]	[NT]
Date analysed	-			[NT]	7	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	7	<4	4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	7	0.9	0.7	25	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	7	12	12	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	7	63	55	14	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	7	340	410	19	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	7	0.5	0.8	46	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	7	8	8	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	7	530	440	19	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	8	02/02/2018	02/02/2018		[NT]	[NT]
Date analysed	-			[NT]	8	02/02/2018	02/02/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	8	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	8	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	8	4	4	0	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	8	22	17	26	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	8	320	320	0	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	8	0.2	0.2	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	8	2	3	40	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	8	140	150	7	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	184337-2
Date prepared	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Date analysed	-			02/02/2018	1	02/02/2018	02/02/2018		02/02/2018	02/02/2018
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	1	<5	<5	0	102	94

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics 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.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying
40-50g of sample in its own container.
Note: Samples 184337-1 to 9 were sub-sampled from jars provided by the client.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details

Your reference	85644.04, Richmond
Envirolab Reference	184337
Date Sample Received	01/02/2018
Date Instructions Received	01/02/2018
Date Results Expected to be Reported	08/02/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	9 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	7.9
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticidesin soil	Organophosphorus Pesticides	PCBsin Soil	Acid Extractable metalsin soil	Total Phenolics (as Phenol)	Asbestos ID - soils
C2-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C3-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
C4-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C6-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
C7-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C26-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
C26-0.4-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓
C35-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓
BD26	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

	Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type (S - soil, W – water)	Container type	Analytes: Combo 8a								Notes
1	C2	0.4-0.5		29/1	S	Jar									
2	C3	0-0.1													
3	C4	0.4-0.5													
4	C6	0-0.1													
5	C7	0.4-0.5													
6	C26	0-0.1													
7	"	0.4-0.5													
8	C35	0-0.1													
9	BD26	29/01/18													
—	BT26	29/01/18													Send BT26 to Eurofins

[illegible] 12 Ashley St
[illegible] NSW 2067
Ph: (02) 9910 6200
Job No: 184337
Date Received: 1/2/18
Time Received: 14:45
Received by: M7
Temp: Cool/Ambient 7.9
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.				Phone:	(02) 9809 0666
Send Results to:	Douglas Partners	Address:	96 Hermitage Road, West Ryde 2114	Fax:	(02) 9809 4095
Relinquished by: PMO	Signed: [signature]	Date & Time: 31.1.18	Received By: M7 Els	Date & Time: 1/2/18 14:45	
Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 187313

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa, Jarrod Somerville
Address	96 Hermitage Rd, West Ryde, NSW, 2114

Sample Details

Your Reference	**85644.04, Richmond**
Number of Samples	1 water
Date samples received	15/03/2018
Date completed instructions received	15/03/2018

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	19/03/2018
Date of Issue	19/03/2018

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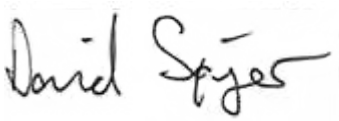
Asbestos Approved By
Analysed by Asbestos Approved Identifier: Paul Ching, Lucy Zhu
Authorised by Asbestos Approved Signatory: Lulu Scott
Analysed by Asbestos Count Approved Signatory: Lucy Zhu
Analysed by Approved Counter: Lulu Scott

Results Approved By
Dragana Tomas, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Lulu Scott, Asbestos Supervisor
Phalak Inthakesone, Organics Development Manager, Sydney
Priya Samarawickrama, Senior Chemist

Authorised By



David Springer, General Manager

VOCs in water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	16/03/2018
Date analysed	-	16/03/2018
Dichlorodifluoromethane	µg/L	<10
Chloromethane	µg/L	<10
Vinyl Chloride	µg/L	<10
Bromomethane	µg/L	<10
Chloroethane	µg/L	<10
Trichlorofluoromethane	µg/L	<10
1,1-Dichloroethene	µg/L	<1
Trans-1,2-dichloroethene	µg/L	<1
1,1-dichloroethane	µg/L	<1
Cis-1,2-dichloroethene	µg/L	<1
Bromochloromethane	µg/L	<1
Chloroform	µg/L	<1
2,2-dichloropropane	µg/L	<1
1,2-dichloroethane	µg/L	<1
1,1,1-trichloroethane	µg/L	<1
1,1-dichloropropene	µg/L	<1
Cyclohexane	µg/L	<1
Carbon tetrachloride	µg/L	<1
Benzene	µg/L	<1
Dibromomethane	µg/L	<1
1,2-dichloropropane	µg/L	<1
Trichloroethene	µg/L	<1
Bromodichloromethane	µg/L	<1
trans-1,3-dichloropropene	µg/L	<1
cis-1,3-dichloropropene	µg/L	<1
1,1,2-trichloroethane	µg/L	<1
Toluene	µg/L	<1
1,3-dichloropropane	µg/L	<1
Dibromochloromethane	µg/L	<1
1,2-dibromoethane	µg/L	<1
Tetrachloroethene	µg/L	<1
1,1,1,2-tetrachloroethane	µg/L	<1
Chlorobenzene	µg/L	<1
Ethylbenzene	µg/L	<1
Bromoform	µg/L	<1

VOCs in water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
m+p-xylene	µg/L	<2
Styrene	µg/L	<1
1,1,2,2-tetrachloroethane	µg/L	<1
o-xylene	µg/L	<1
1,2,3-trichloropropane	µg/L	<1
Isopropylbenzene	µg/L	<1
Bromobenzene	µg/L	<1
n-propyl benzene	µg/L	<1
2-chlorotoluene	µg/L	<1
4-chlorotoluene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
1,3-dichlorobenzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
1,4-dichlorobenzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
1,2-dichlorobenzene	µg/L	<1
n-butyl benzene	µg/L	<1
1,2-dibromo-3-chloropropane	µg/L	<1
1,2,4-trichlorobenzene	µg/L	<1
Hexachlorobutadiene	µg/L	<1
1,2,3-trichlorobenzene	µg/L	<1
Surrogate Dibromofluoromethane	%	102
Surrogate toluene-d8	%	95
Surrogate 4-BFB	%	89

vTRH(C6-C10)/BTEXN in Water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	16/03/2018
Date analysed	-	16/03/2018
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	102
Surrogate toluene-d8	%	95
Surrogate 4-BFB	%	89

svTRH (C10-C40) in Water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	15/03/2018
Date analysed	-	16/03/2018
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	105

PFAS in Waters Extended		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date prepared	-	16/03/2018
Date analysed	-	16/03/2018
Perfluorobutanesulfonic acid	µg/L	0.01
Perfluoropentanesulfonic acid	µg/L	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.11
Perfluoroheptanesulfonic acid	µg/L	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	0.04
Perfluoropentanoic acid	µg/L	<0.02
Perfluorohexanoic acid	µg/L	0.01
Perfluoroheptanoic acid	µg/L	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.01
10:2 FTS	µg/L	<0.01
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02
Surrogate $^{13}C_8$ PFOS	%	96
Surrogate $^{13}C_2$ PFOA	%	102

PAHs in Water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	15/03/2018
Date analysed	-	16/03/2018
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b,j+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Benzo(a)pyrene TEQ	µg/L	<5
Total +ve PAH's	µg/L	NIL (+)VE
Surrogate p-Terphenyl-d14	%	93

OCP in water		
Our Reference	UNITS	187313-1
Your Reference		GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	15/03/2018
Date analysed	-	16/03/2018
HCB	µg/L	<0.2
alpha-BHC	µg/L	<0.2
gamma-BHC	µg/L	<0.2
beta-BHC	µg/L	<0.2
Heptachlor	µg/L	<0.2
delta-BHC	µg/L	<0.2
Aldrin	µg/L	<0.2
Heptachlor Epoxide	µg/L	<0.2
gamma-Chlordane	µg/L	<0.2
alpha-Chlordane	µg/L	<0.2
Endosulfan I	µg/L	<0.2
pp-DDE	µg/L	<0.2
Dieldrin	µg/L	<0.2
Endrin	µg/L	<0.2
pp-DDD	µg/L	<0.2
Endosulfan II	µg/L	<0.2
pp-DDT	µg/L	<0.2
Endrin Aldehyde	µg/L	<0.2
Endosulfan Sulphate	µg/L	<0.2
Methoxychlor	µg/L	<0.2
Surrogate TCMX	%	90

OP Pesticides in water		
Our Reference	UNITS	187313-1
Your Reference		GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	15/03/2018
Date analysed	-	16/03/2018
Azinphos-methyl (Guthion)	µg/L	<0.2
Bromophos ethyl	µg/L	<0.2
Chlorpyriphos	µg/L	<0.2
Chlorpyriphos-methyl	µg/L	<0.2
Diazinon	µg/L	<0.2
Dichlorovos	µg/L	<0.2
Dimethoate	µg/L	<0.2
Ethion	µg/L	<0.2
Fenitrothion	µg/L	<0.2
Malathion	µg/L	<0.2
Parathion	µg/L	<0.2
Ronnel	µg/L	<0.2
Surrogate TCMX	%	90

PCBs in Water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	15/03/2018
Date analysed	-	16/03/2018
Aroclor 1016	µg/L	<2
Aroclor 1221	µg/L	<2
Aroclor 1232	µg/L	<2
Aroclor 1242	µg/L	<2
Aroclor 1248	µg/L	<2
Aroclor 1254	µg/L	<2
Aroclor 1260	µg/L	<2
Surrogate TCLMX	%	90

Total Phenolics in Water		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date extracted	-	16/03/2018
Date analysed	-	16/03/2018
Total Phenolics (as Phenol)	mg/L	<0.05

HM in water - dissolved		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date prepared	-	16/03/2018
Date analysed	-	16/03/2018
Arsenic-Dissolved	µg/L	1
Cadmium-Dissolved	µg/L	<0.1
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	11
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	5
Zinc-Dissolved	µg/L	29

Asbestos in Water*		
Our Reference		187313-1
Your Reference	UNITS	GW2
Date Sampled		15/03/2018
Type of sample		water
Date prepared	-	19/03/2018
Date analysed	-	19/03/2018
Fibres Counted*	-	0
Fields Counted*	-	100.0
Filter Size Counted*	mm	25.0
Volume*	mL	250
Filter Size for Sediment*	mm	(47mm) x4
Asbestos ID in Sediment	-	No asbestos detected

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-002	Estimation of Airborne Asbestos Fibres by the Membrane Filter Method. Filters examined in accordance with NOHSC:3003 (April 2005) Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres and Envirolab in-house method ASB-002. The microscope constant for Carl Zeiss Axio Lab.A1 (Sydney Laboratory) calculated using 25mm filter is 48593. The microscope constant for Olympus BX41 (Perth Laboratory) calculated using 25mm filter is 46981. These constants are to be used to calculate fibres/mL concentration for asbestos fibre air monitoring filters. If less than 10 fibres/100 graticule areas is observed, the figure of 10 fibres/100 graticule areas is the minimum that can be used to calculate airborne fibre concentration as per NOHSC: 3003(April 2005)
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-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-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.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-012	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-013	Water samples are analysed directly by purge and trap 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.

Method ID	Methodology Summary
Org-035E	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are NOT corrected for Surrogates (mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample - also known as Extracted Internal Standards) UNLESS contractually requested. Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.
Org-035E_2	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are NOT corrected for Surrogates (mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample - also known as Extracted Internal Standards) UNLESS contractually requested. Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Dichlorodifluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-013	<10	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroform	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
2,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	92	[NT]
1,1,1-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
1,1-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromomethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Bromodichloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
1,2-dibromoethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromoform	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
1,2,3-trichloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-013	93	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate toluene-d8	%		Org-013	97	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate 4-BFB	%		Org-013	130	[NT]	[NT]	[NT]	[NT]	91	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	90	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	90	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	86	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	90	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	93	[NT]	[NT]	[NT]	[NT]	102	[NT]
Surrogate toluene-d8	%		Org-016	97	[NT]	[NT]	[NT]	[NT]	95	[NT]
Surrogate 4-BFB	%		Org-016	130	[NT]	[NT]	[NT]	[NT]	91	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	129	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	125	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	93	[NT]
Surrogate o-Terphenyl	%		Org-003	108	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	105	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	110	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	110	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-035E	<0.05	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-035E	<0.1	[NT]	[NT]	[NT]	[NT]	76	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-035E	<0.5	[NT]	[NT]	[NT]	[NT]	100	[NT]
4:2 FTS	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	111	[NT]
6:2 FTS	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
8:2 FTS	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	106	[NT]
10:2 FTS	µg/L	0.01	Org-035E	<0.01	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-035E	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-035E	<0.05	[NT]	[NT]	[NT]	[NT]	99	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-035E	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-035E	<0.05	[NT]	[NT]	[NT]	[NT]	92	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-035E	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	108	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-035E	<0.02	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_8$ PFOS	%		Org-035E	102	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate $^{13}C_2$ PFOA	%		Org-035E_2	102	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: PAHs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			15/03/2018	[NT]	[NT]	[NT]	[NT]	15/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Naphthalene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Acenaphthylene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Phenanthrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Anthracene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	81	[NT]
Pyrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Benzo(a)anthracene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Benzo(b,j+k)fluoranthene	µg/L	2	Org-012	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	1	Org-012	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	102	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: OCP in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/03/2018	[NT]	[NT]	[NT]	[NT]	15/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
HCB	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	119	[NT]
gamma-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	111	[NT]
Heptachlor	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	116	[NT]
delta-BHC	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	111	[NT]
Heptachlor Epoxide	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	116	[NT]
gamma-Chlordane	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	120	[NT]
Dieldrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	128	[NT]
Endrin	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	120	[NT]
pp-DDD	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	127	[NT]
Endosulfan II	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	129	[NT]
Methoxychlor	µg/L	0.2	Org-005	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-005	97	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: OP Pesticides in water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/03/2018	[NT]	[NT]	[NT]	[NT]	15/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Azinphos-methyl (Guthion)	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromophos ethyl	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	74	[NT]
Chlorpyriphos-methyl	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dichlorovos	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	79	[NT]
Dimethoate	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	76	[NT]
Fenitrothion	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Malathion	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	84	[NT]
Parathion	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	91	[NT]
Ronnel	µg/L	0.2	Org-008	<0.2	[NT]	[NT]	[NT]	[NT]	78	[NT]
Surrogate TCMX	%		Org-008	97	[NT]	[NT]	[NT]	[NT]	82	[NT]

QUALITY CONTROL: PCBs in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			15/03/2018	[NT]	[NT]	[NT]	[NT]	15/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Aroclor 1016	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	73	[NT]
Aroclor 1260	µg/L	2	Org-006	<2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCLMX	%		Org-006	97	[NT]	[NT]	[NT]	[NT]	82	[NT]

QUALITY CONTROL: Total Phenolics in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Date analysed	-			16/03/2018	[NT]	[NT]	[NT]	[NT]	16/03/2018	[NT]
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			16/03/2018	1	16/03/2018	16/03/2018		16/03/2018	[NT]
Date analysed	-			16/03/2018	1	16/03/2018	16/03/2018		16/03/2018	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	1	1	0	102	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	103	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	101	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	11	11	0	100	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	102	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	[NT]		95	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	5	5	0	101	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	29	29	0	100	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

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.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics 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.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

Note: Asbestos fibres in water was analysed as per clients request, the number of fibres counted was reported. This form of testing is outside the our scope of NATA accreditation.
250mL of water sample was filtered, sediment was collected on 47mm filters and analysed for asbestos fibre identification.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa, Jarrod Somerville

Sample Login Details

Your reference	85644.04, Richmond
Envirolab Reference	187313
Date Sample Received	15/03/2018
Date Instructions Received	15/03/2018
Date Results Expected to be Reported	19/03/2018

Sample Condition

Samples received in appropriate condition for analysis	YES
No. of Samples Provided	1 water
Turnaround Time Requested	2 days
Temperature on Receipt (°C)	4.8
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PFAS in Waters Extended	PAHsin Water	OCP in water	OP Pesticides in water	PCBs in Water	Total Phenolicsin Water	HM in water - dissolved	Asbestos in Water*
GW2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY DESPATCH SHEET

Project No: 85644.04	**Suburb:** Richmond	**To:** Lab name Enviro Lab.
Project Name: Richmond	**Order Number**	
Project Manager: Peter Ottmar	**Sampler:** Jarrod Somerville	**Attn:** Aileen Hie
Emails: Peter.Ottmar@douglaspartners.com.au		**Phone:**
Date Required: Same day ☐ 24 hours ☐ 48 hours ☑ 72 hours ☐ Standard ☐		**Email:**
Prior Storage: ☑ Esky ☑ Fridge ☐ Shelved	Do samples contain 'potential' HBM? Yes ☐ No ☐ (If YES, then handle, transport and store in accordance with FPM HAZID)	

Sample ID	Lab ID	Date Sampled	Sample Type (S - soil W - water)	Container Type (G - glass P - plastic)	Analytes: Heavy Metals	OCP/OPP PCB	TRH and BTEX	PAH	Total Phenols	Asbestos 500 ml	VOC	PFAS		Notes/preservation
GW2	1	15/03/18	W	G+P	●	●	●	●	●	●	●	●		
PQL (S) mg/kg													**ANZECC PQLs req'd for all water analytes** ☐	

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 187313
Date Received: 15/3/18
Time Received: 15:00
Received by: MT
Temp: Cool/Ambient 4.8
Cooling: Ice/Icepack
Security: Intact/Broken/None

PQL = practical quantitation limit. If none given, default to Laboratory Method Detection Limit

Metals to Analyse: 8HM unless specified here:

Lab Report/Reference No: 187313

Total number of samples in container:

Relinquished by: JSMS

Transported to laboratory by:

Send Results to: Douglas Partners Pty Ltd **Address:** 96 Hermitage Rd West Ryde **Phone:** **Fax:**

Signed: JSomerville **Received by:** MT ECS **Date & Time:** 15/3/18 15:00

Certificate of Analysis

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention: **Peter Oitmaa**

Report **582346-S**
Project name RICHMOND
Project ID 85644.04
Received Date Jan 30, 2018

Client Sample ID			**BT3**	**BT2**	**BT5**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S18-Ja24711**	**S18-Ja26415**	**S18-Ja26416**
Date Sampled			**Jan 17, 2018**	**Jan 18, 2018**	**Jan 18, 2018**
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	%	74	81	71
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					
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
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

Client Sample ID			BT3	BT2	BT5
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S18-Ja24711	S18-Ja26415	S18-Ja26416
Date Sampled			Jan 17, 2018	Jan 18, 2018	Jan 18, 2018
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
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
2-Fluorobiphenyl (surr.)	1	%	89	98	104
p-Terphenyl-d14 (surr.)	1	%	101	117	123
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
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	91	87	90
Tetrachloro-m-xylene (surr.)	1	%	94	96	92
Organophosphorus Pesticides					
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	< 0.2

Client Sample ID			BT3	BT2	BT5
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S18-Ja24711	S18-Ja26415	S18-Ja26416
Date Sampled			Jan 17, 2018	Jan 18, 2018	Jan 18, 2018
Test/Reference	LOR	Unit			
Organophosphorus Pesticides					
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	105	109	113
Polychlorinated Biphenyls					
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
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	%	91	87	90
Tetrachloro-m-xylene (surr.)	1	%	94	96	92
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1

Client Sample ID			BT3	BT2	BT5
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S18-Ja24711	S18-Ja26415	S18-Ja26416
Date Sampled			Jan 17, 2018	Jan 18, 2018	Jan 18, 2018
Test/Reference	LOR	Unit			
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	97	110	108
Heavy Metals					
Arsenic	2	mg/kg	< 2	2.5	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	< 5	< 5
Copper	5	mg/kg	< 5	< 5	< 5
Lead	5	mg/kg	< 5	< 5	7.7
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5
Zinc	5	mg/kg	< 5	< 5	6.6
% Moisture	1	%	4.7	3.3	3.0

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Feb 01, 2018	14 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 01, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 01, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
BTEX	Sydney	Feb 01, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 01, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Sydney	Feb 01, 2018	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Feb 01, 2018	14 Day
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Feb 01, 2018	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Feb 01, 2018	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
Phenols (Halogenated)	Sydney	Feb 01, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
Phenols (non-Halogenated)	Sydney	Feb 01, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
% Moisture	Sydney	Jan 31, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

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

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

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

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	582346 02 9809 0666
Project Name:	RICHMOND		
Project ID:	85644.04		

Received:	Jan 30, 2018 2:12 PM
Due:	Feb 6, 2018
Priority:	5 Day
Contact Name:	Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Moisture Set	Total Recoverable Hydrocarbons
elbourne Laboratory - NATA Site # 1254 & 14271															
ydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
isbane Laboratory - NATA Site # 20794															
erth Laboratory - NATA Site # 23736															
ternal Laboratory															
o	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
	BT3	Jan 17, 2018		Soil	S18-Ja24711	X	X	X	X	X	X	X	X	X	X
	BT2	Jan 18, 2018		Soil	S18-Ja26415	X	X	X	X	X	X	X	X	X	X
	BT5	Jan 18, 2018		Soil	S18-Ja26416	X	X	X	X	X	X	X	X	X	X
st Counts						3	3	3	3	3	3	3	3	3	3

Eurofins | mgt Unit F3, Building F, 16 Mars Road, Lane Cove West, NSW, Australia, 2066
ABN : 50 005 085 521 Telephone : +61 2 9900 8400

Date Reported:Feb 06, 2018

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. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

QC Data General Comments

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

Quality Control Results

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1.0	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	92			70-130	Pass	
TRH C10-C14	%	78			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	125			70-130	Pass	
Toluene	%	85			70-130	Pass	
Ethylbenzene	%	84			70-130	Pass	
m&p-Xylenes	%	84			70-130	Pass	
o-Xylene	%	83			70-130	Pass	
Xylenes - Total	%	84			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	81			70-130	Pass	
TRH C6-C10	%	90			70-130	Pass	
TRH >C10-C16	%	82			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	78			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthylene	%	86			70-130	Pass	
Anthracene	%	93			70-130	Pass	
Benz(a)anthracene	%	85			70-130	Pass	
Benzo(a)pyrene	%	80			70-130	Pass	
Benzo(b&j)fluoranthene	%	82			70-130	Pass	
Benzo(g.h.i)perylene	%	91			70-130	Pass	
Benzo(k)fluoranthene	%	88			70-130	Pass	
Chrysene	%	93			70-130	Pass	
Dibenz(a.h)anthracene	%	86			70-130	Pass	
Fluoranthene	%	86			70-130	Pass	
Fluorene	%	90			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	89			70-130	Pass	
Naphthalene	%	84			70-130	Pass	
Phenanthrene	%	91			70-130	Pass	
Pyrene	%	86			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	74			70-130	Pass	
4.4'-DDD	%	110			70-130	Pass	
4.4'-DDE	%	105			70-130	Pass	
4.4'-DDT	%	110			70-130	Pass	
a-BHC	%	104			70-130	Pass	
Aldrin	%	97			70-130	Pass	
b-BHC	%	97			70-130	Pass	
d-BHC	%	100			70-130	Pass	
Dieldrin	%	107			70-130	Pass	
Endosulfan I	%	102			70-130	Pass	
Endosulfan II	%	105			70-130	Pass	
Endosulfan sulphate	%	103			70-130	Pass	
Endrin	%	115			70-130	Pass	
Endrin aldehyde	%	94			70-130	Pass	
Endrin ketone	%	106			70-130	Pass	
g-BHC (Lindane)	%	105			70-130	Pass	
Heptachlor	%	100			70-130	Pass	
Heptachlor epoxide	%	101			70-130	Pass	
Hexachlorobenzene	%	88			70-130	Pass	
Methoxychlor	%	109			70-130	Pass	
Toxaphene	%	84			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	82			70-130	Pass	
Dimethoate	%	77			70-130	Pass	
Ethion	%	86			70-130	Pass	
Fenitrothion	%	89			70-130	Pass	
Methyl parathion	%	96			70-130	Pass	
Mevinphos	%	93			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	104			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	91			30-130	Pass	
2.4-Dichlorophenol	%	88			30-130	Pass	
2.4.5-Trichlorophenol	%	88			30-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4.6-Trichlorophenol	%	89			30-130	Pass	
2.6-Dichlorophenol	%	92			30-130	Pass	
4-Chloro-3-methylphenol	%	85			30-130	Pass	
Pentachlorophenol	%	74			30-130	Pass	
Tetrachlorophenols - Total	%	118			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	79			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	74			30-130	Pass	
2-Methylphenol (o-Cresol)	%	88			30-130	Pass	
2-Nitrophenol	%	88			30-130	Pass	
2.4-Dimethylphenol	%	94			30-130	Pass	
2.4-Dinitrophenol	%	82			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	88			30-130	Pass	
4-Nitrophenol	%	80			30-130	Pass	
Dinoseb	%	80			30-130	Pass	
Phenol	%	90			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	97			70-130	Pass	
Cadmium	%	98			70-130	Pass	
Chromium	%	104			70-130	Pass	
Copper	%	105			70-130	Pass	
Lead	%	101			70-130	Pass	
Mercury	%	104			70-130	Pass	
Nickel	%	108			70-130	Pass	
Zinc	%	106			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	S18-Ja23483	NCP	%	79			70-130	Pass	
TRH C10-C14	S18-Fe02905	NCP	%	74			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S18-Ja23483	NCP	%	108			70-130	Pass	
Toluene	S18-Ja23483	NCP	%	97			70-130	Pass	
Ethylbenzene	S18-Ja23483	NCP	%	97			70-130	Pass	
m&p-Xylenes	S18-Ja23483	NCP	%	98			70-130	Pass	
o-Xylene	S18-Ja23483	NCP	%	97			70-130	Pass	
Xylenes - Total	S18-Ja23483	NCP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S18-Ja23483	NCP	%	82			70-130	Pass	
TRH C6-C10	S18-Ja23483	NCP	%	83			70-130	Pass	
TRH >C10-C16	S18-Fe02905	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S18-Ja24306	NCP	%	83			70-130	Pass	
Acenaphthylene	S18-Ja24306	NCP	%	93			70-130	Pass	
Anthracene	S18-Ja24306	NCP	%	99			70-130	Pass	
Benz(a)anthracene	S18-Ja24306	NCP	%	90			70-130	Pass	
Benzo(a)pyrene	S18-Ja24306	NCP	%	87			70-130	Pass	
Benzo(b&j)fluoranthene	S18-Ja24306	NCP	%	87			70-130	Pass	
Benzo(g.h.i)perylene	S18-Ja24306	NCP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(k)fluoranthene	S18-Ja24306	NCP	%	94			70-130	Pass	
Chrysene	S18-Ja24306	NCP	%	99			70-130	Pass	
Dibenz(a.h)anthracene	S18-Ja24306	NCP	%	96			70-130	Pass	
Fluoranthene	S18-Ja24306	NCP	%	92			70-130	Pass	
Fluorene	S18-Ja24306	NCP	%	95			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S18-Ja24306	NCP	%	97			70-130	Pass	
Naphthalene	S18-Ja24306	NCP	%	89			70-130	Pass	
Phenanthrene	S18-Ja24306	NCP	%	96			70-130	Pass	
Pyrene	S18-Ja24306	NCP	%	92			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S18-Fe04772	NCP	%	122			70-130	Pass	
4.4'-DDE	S18-Fe04772	NCP	%	95			70-130	Pass	
4.4'-DDT	S18-Fe04086	NCP	%	95			70-130	Pass	
a-BHC	S18-Fe04772	NCP	%	98			70-130	Pass	
Aldrin	S18-Fe04772	NCP	%	91			70-130	Pass	
b-BHC	S18-Fe04772	NCP	%	84			70-130	Pass	
d-BHC	S18-Fe04772	NCP	%	90			70-130	Pass	
Dieldrin	S18-Fe04772	NCP	%	101			70-130	Pass	
Endosulfan I	S18-Fe04772	NCP	%	88			70-130	Pass	
Endosulfan II	S18-Fe04772	NCP	%	93			70-130	Pass	
Endosulfan sulphate	S18-Fe04772	NCP	%	92			70-130	Pass	
Endrin	S18-Fe03036	NCP	%	100			70-130	Pass	
Endrin aldehyde	S18-Fe04772	NCP	%	82			70-130	Pass	
Endrin ketone	S18-Fe04772	NCP	%	97			70-130	Pass	
g-BHC (Lindane)	S18-Fe04772	NCP	%	91			70-130	Pass	
Heptachlor	S18-Fe04086	NCP	%	107			70-130	Pass	
Heptachlor epoxide	S18-Fe04772	NCP	%	90			70-130	Pass	
Hexachlorobenzene	S18-Fe04772	NCP	%	86			70-130	Pass	
Methoxychlor	S18-Fe04086	NCP	%	109			70-130	Pass	
Toxaphene	S18-Fe03036	NCP	%	107			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S18-Ja26626	NCP	%	78			70-130	Pass	
Dimethoate	S18-Ja26626	NCP	%	79			70-130	Pass	
Ethion	S18-Ja26626	NCP	%	94			70-130	Pass	
Fenitrothion	S18-Ja26626	NCP	%	89			70-130	Pass	
Methyl parathion	S18-Ja26626	NCP	%	96			70-130	Pass	
Mevinphos	S18-Ja26626	NCP	%	91			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S18-Fe04772	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S18-Ja24306	NCP	%	97			30-130	Pass	
2.4-Dichlorophenol	S18-Ja24306	NCP	%	95			30-130	Pass	
2.4.5-Trichlorophenol	S18-Ja24306	NCP	%	93			30-130	Pass	
2.4.6-Trichlorophenol	S18-Ja24306	NCP	%	97			30-130	Pass	
2.6-Dichlorophenol	S18-Ja24306	NCP	%	98			30-130	Pass	
4-Chloro-3-methylphenol	S18-Ja24306	NCP	%	92			30-130	Pass	
Pentachlorophenol	S18-Ja24306	NCP	%	71			30-130	Pass	
Tetrachlorophenols - Total	S18-Ja24306	NCP	%	100			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Cyclohexyl-4.6-dinitrophenol	S18-Ja24306	NCP	%	91			30-130	Pass	
2-Methyl-4.6-dinitrophenol	S18-Ja24306	NCP	%	78			30-130	Pass	
2-Methylphenol (o-Cresol)	S18-Ja24306	NCP	%	101			30-130	Pass	
2-Nitrophenol	S18-Ja24306	NCP	%	97			30-130	Pass	
2.4-Dimethylphenol	S18-Ja24306	NCP	%	102			30-130	Pass	
2.4-Dinitrophenol	S18-Ja24931	NCP	%	85			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S18-Ja24306	NCP	%	95			30-130	Pass	
4-Nitrophenol	S18-Ja24306	NCP	%	117			30-130	Pass	
Dinoseb	S18-Ja24306	NCP	%	116			30-130	Pass	
Phenol	S18-Ja24306	NCP	%	93			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S18-Ja26416	CP	%	111			70-130	Pass	
Cadmium	S18-Ja26416	CP	%	104			70-130	Pass	
Chromium	S18-Ja26416	CP	%	111			70-130	Pass	
Copper	S18-Ja26416	CP	%	112			70-130	Pass	
Lead	S18-Ja26416	CP	%	119			70-130	Pass	
Mercury	S18-Ja26416	CP	%	105			70-130	Pass	
Nickel	S18-Ja26416	CP	%	115			70-130	Pass	
Zinc	S18-Ja26416	CP	%	89			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	S18-Ja24369	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S18-Ja26432	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S18-Ja26432	NCP	mg/kg	50	< 50	67	30%	Fail	Q15
TRH C29-C36	S18-Ja26432	NCP	mg/kg	86	< 50	80	30%	Fail	Q15
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S18-Ja24369	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S18-Ja24369	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S18-Ja24369	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S18-Ja24369	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S18-Ja24369	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S18-Ja24369	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S18-Ja24369	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S18-Ja24369	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S18-Ja26432	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S18-Ja26432	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S18-Ja26432	NCP	mg/kg	130	< 100	96	30%	Fail	Q15
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluoranthene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S18-Fe04771	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S18-Fe04771	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S18-Fe04771	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S18-Fe04771	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S18-Ja24711	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Monocrotophos	S18-Ja24711	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S18-Ja24711	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S18-Fe04771	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S18-Fe04771	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S18-Fe04771	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S18-Fe04771	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S18-Fe04771	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S18-Fe04771	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S18-Fe04771	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S18-Ja24711	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S18-Ja24711	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S18-Ja24711	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S18-Ja24711	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S18-Ja24711	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S18-Ja24711	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S18-Ja24711	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S18-Ja24711	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	S18-Ja24711	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S18-Ja24711	CP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S18-Ja24711	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S18-Ja24711	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S18-Ja24711	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S18-Ja24711	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S18-Ja26415	CP	mg/kg	2.5	< 2	100	30%	Fail	Q15
Cadmium	S18-Ja26415	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S18-Ja26415	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S18-Ja26415	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S18-Ja26415	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S18-Ja26415	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S18-Ja26415	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S18-Ja26415	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S18-Ja26415	CP	%	3.3	3.2	4.0	30%	Pass	

Comments

Sample Integrity

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

Comments

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 QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Nibha Vaidya	Analytical Services Manager
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

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

Certificate of Analysis

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

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	Peter Oitmaa
Report	582346-AID
Project Name	RICHMOND
Project ID	85644.04
Received Date	Jan 30, 2018
Date Reported	Feb 06, 2018

Methodology:

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

Project Name RICHMOND
Project ID 85644.04
Date Sampled Jan 17, 2018 to Jan 18, 2018
Report 582346-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BT3	18-Ja24711	Jan 17, 2018	Approximate Sample 78g Sample consisted of: Brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
BT2	18-Ja26415	Jan 18, 2018	Approximate Sample 90g Sample consisted of: Brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
BT5	18-Ja26416	Jan 18, 2018	Approximate Sample 72g Sample consisted of: Brown fine grain soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jan 31, 2018	Indefinite

eurofins | mgt

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

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

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

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

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

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: RICHMOND
Project ID: 85644.04

Order No.:
Report #: 582346
Phone: 02 9809 0666
Fax:

Received: Jan 30, 2018 2:12 PM
Due: Feb 6, 2018
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BT3	Jan 17, 2018		Soil	S18-Ja24711	X	X	X	X	X	X	X	X	X	X
2	BT2	Jan 18, 2018		Soil	S18-Ja26415	X	X	X	X	X	X	X	X	X	X
3	BT5	Jan 18, 2018		Soil	S18-Ja26416	X	X	X	X	X	X	X	X	X	X
Test Counts						3	3	3	3	3	3	3	3	3	3

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

Units

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

Terms

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

Comments

The samples received were not collected in an approved asbestos bag and was therefore sub-sampled from the 250mL glass jar. Valid sub-sampling procedures were applied so as to ensure that the sub-samples to be analysed accurately represented the samples received.

Sample Integrity

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

Comments

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Authorised by:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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

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

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

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	582346 02 9809 0666
Project Name:	RICHMOND		
Project ID:	85644.04		

Received:	Jan 30, 2018 2:12 PM
Due:	Feb 6, 2018
Priority:	5 Day
Contact Name:	Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Metals M8	Phenols (IWRG 621)	BTEX	Moisture Set	Total Recoverable Hydrocarbons
elbourne Laboratory - NATA Site # 1254 & 14271															
ydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
isbane Laboratory - NATA Site # 20794															
erth Laboratory - NATA Site # 23736															
ternal Laboratory															
o	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
	BD3|BT3	Jan 17, 2018		Soil	S18-Ja24711	X	X	X	X	X	X	X	X	X	X
st Counts						1	1	1	1	1	1	1	1	1	1

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

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

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

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

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

Sample Receipt Advice

Company name:	**Douglas Partners (Syd)**
Contact name:	Peter Oitmaa
Project name:	RICHMOND
Project ID:	85644.04
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Jan 30, 2018 2:12 PM
Eurofins | mgt reference:	**582346**

Sample information

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

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

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

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

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

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

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

Results will be delivered electronically via e.mail to Peter Oitmaa - peter.oitmaa@douglaspartners.com.au.

582346

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	pH CEC							Notes
C8	0.4-0.5	1	18.1	S	Jar									
C17	0-0.1	2	"											
C18	0.4-0.5	3	"				✓							
C27	0.9-1.0	4	"											
C27	1.4-1.5	5	"											
C43	0-0.1	6	"											
C56	0-0.1	7	"											18R027
C61	0.4-0.5	8	"											29/1/18 12:40 MT
C71	0-0.1	9	17.1											20.9
C75	0.4-0.5	10	"				✓							Broken/None
C76	0.4-0.5	11	"											
C79	0-0.1	12	"											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO Signed: [signature] Date & Time: 25/1/18 Received By: MT ELS Date & Time: 29/1/18 12:40
Relinquished by: ELS Jack Emblen Signed: [signature] Date & Time: 30.1.18 13:00 Received By: Jack Walk Date & Time: 30/01/18 2:12 pm

P1/5

Form COC Rev0/November 2006

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC						Notes
C80	0-0.1	13	17.1	S	Jar								
C83	0.4-0.5	14	"										
C84	0-0.1	15	"										
C88	0.4-0.5	16	"				✓						
C89	0-0.1	17	18.1										
C90	0-0.1	18	17.1										
C95	0-0.1	19	"										
C101	0.4-0.5	20	18.1										
C102	0-0.1	21	"										
C103	0-0.1	22	17.1										
C108	0-0.1	23	19.1										
C106	0.4-0.5	24	"				✓						

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 25/1/18	Received By: MT EES	Date & Time: 25/1/18 12.40
Relinquished by: EES JACK ENGLISH	Signed:	Date & Time: 30/1/18 13:00	Received By: Jacke Wallis	Date & Time: 30/01/18 2:12 PM

P2/5

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C108	0-0.1	25	19.1	S	Jar								
C109	0-0.1	26	18.1										
C110	0.4-0.5	27	"										
C113	0-0.1	28	19.1										
C114	0.4-0.5	29	"				✓						
C115	0-0.1	30	"										
C116	0.9-1.0	31	18.1										
C117	0.4-0.5	32	19.1										
C119	0-0.1	33	"										
C120	0.4-0.5	34	"										
C121	0-0.1	35	"										
C122	0.1-0.2	36	"										

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO Signed: PMO Date & Time: 25/1/18 Received By: MT EGS Date & Time: 29/1/18 10:45

Relinquished by: EGS JACK GIBLIN Signed: Date & Time: 30/1/18 13:00 Received By: Jade Wallis Date & Time: 30/01/18 2:12 pm

P3/5

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone. 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C123	0.9-1.0	37	19-1	S	Jar		✓							
C124	0-0.1	38	11											
C125	0.4-0.5	39	11											
C126	0-0.1	40	11											
C127	0-0.1	41	17-1											
C128	0-0.1	42	19-1											
C129	0-0.1	~~43~~ 45	17-1											
C130	0-0.1	44	11											
BD2 | BT2	180118	NR	18-1											Please send 1 of the triplicate sample to EUROFINS
BD5 | BT5	180118	45.46	11											
BD2 | BT2	170118	47.48	17-1											
BD3 | BT3	170118	49 ~~50~~	11											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 25/1/18	Received By: ALT EES	Date & Time: 29/1/18 12:40
Relinquished by: EES Jack Fowler	Signed:	Date & Time: 30/1/18 13:00	Received By: Jacke Walker	Date & Time: 30/01/18 2:17PM

P4/5

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID 184027	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: ACM ID.								Notes
C27		50	18.1	Material	Bag	✓								Material ID
Extras.														
TP81	0.0-0.1	51												
TP85	0.0-0.1	52												

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 25/1/18	Received By:	Date & Time:	29/1/18 12:40
Relinquished by:	Signed:	Date & Time:	Received By: Jack Walls	Date & Time:	30/01/18 2:12PM

P5/5

Form COC Rev0/November 2006

Certificate of Analysis

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention: **Peter Oitmaa**

Report **582909-S**
Project name RICHMOND
Project ID 85644.04
Received Date Feb 02, 2018

Client Sample ID			**BT25**	**BT23**	**BT17**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S18-Fe01621**	**S18-Fe01622**	**S18-Fe01623**
Date Sampled			**Jan 25, 2018**	**Jan 25, 2018**	**Jan 25, 2018**
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	%	78	82	84
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					
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
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

Client Sample ID			BT25	BT23	BT17
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S18-Fe01621	S18-Fe01622	S18-Fe01623
Date Sampled			Jan 25, 2018	Jan 25, 2018	Jan 25, 2018
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
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
2-Fluorobiphenyl (surr.)	1	%	95	92	97
p-Terphenyl-d14 (surr.)	1	%	103	103	107
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
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	113	94	105
Tetrachloro-m-xylene (surr.)	1	%	121	107	120
Organophosphorus Pesticides					
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Coumaphos	2	mg/kg	< 2	< 2	< 2
Demeton-S	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Dimethoate	0.2	mg/kg	< 0.2	< 0.2	< 0.2

Client Sample ID			BT25	BT23	BT17
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S18-Fe01621	S18-Fe01622	S18-Fe01623
Date Sampled			Jan 25, 2018	Jan 25, 2018	Jan 25, 2018
Test/Reference	LOR	Unit			
Organophosphorus Pesticides					
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2
EPN	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Malathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Monocrotophos	2	mg/kg	< 2	< 2	< 2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Omethoate	2	mg/kg	< 2	< 2	< 2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Terbufos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	94	88	89
Polychlorinated Biphenyls					
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
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	%	113	94	105
Tetrachloro-m-xylene (surr.)	1	%	121	107	120
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1

Client Sample ID			BT25	BT23	BT17
Sample Matrix			Soil	Soil	Soil
Eurofins | mgt Sample No.			S18-Fe01621	S18-Fe01622	S18-Fe01623
Date Sampled			Jan 25, 2018	Jan 25, 2018	Jan 25, 2018
Test/Reference	LOR	Unit			
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	99	99	103
Heavy Metals					
Arsenic	2	mg/kg	< 2	< 2	< 2
Barium	10	mg/kg	< 10	13	12
Beryllium	2	mg/kg	< 2	< 2	< 2
Boron	10	mg/kg	< 10	< 10	< 10
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	< 5	< 5
Cobalt	5	mg/kg	< 5	< 5	11
Copper	5	mg/kg	< 5	< 5	< 5
Lead	5	mg/kg	< 5	24	< 5
Manganese	5	mg/kg	26	72	37
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Molybdenum	5	mg/kg	< 5	< 5	< 5
Nickel	5	mg/kg	< 5	< 5	6.8
Selenium	2	mg/kg	< 2	< 2	< 2
Silver	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tin	10	mg/kg	< 10	< 10	< 10
Zinc	5	mg/kg	< 5	8.5	< 5
% Moisture	1	%	1.6	1.5	1.0

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
BTEX	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 06, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Sydney	Feb 06, 2018	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Feb 06, 2018	14 Day
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Feb 06, 2018	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
VIC EPA Metals : Metals M17	Sydney	Feb 06, 2018	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
Phenols (Halogenated)	Sydney	Feb 06, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
Phenols (non-Halogenated)	Sydney	Feb 06, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
% Moisture	Sydney	Feb 02, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

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

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

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

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:**	582909
		Phone:	02 9809 0666
		Fax:	
Project Name:	RICHMOND		
Project ID:	85644.04		

Received:	Feb 2, 2018 3:00 PM
Due:	Feb 9, 2018
Priority:	5 Day
Contact Name:	Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Phenols (IWRG 621)	BTEX	VIC EPA Metals : Metals M17	Moisture Set	Total Recoverable Hydrocarbons
elbourne Laboratory - NATA Site # 1254 & 14271															
ydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
isbane Laboratory - NATA Site # 20794															
erth Laboratory - NATA Site # 23736															
ternal Laboratory															
o	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
	BT25	Jan 25, 2018		Soil	S18-Fe01621	X	X	X	X	X	X	X	X	X	X
	BT23	Jan 25, 2018		Soil	S18-Fe01622	X	X	X	X	X	X	X	X	X	X
	BT17	Jan 25, 2018		Soil	S18-Fe01623	X	X	X	X	X	X	X	X	X	X
st Counts						3	3	3	3	3	3	3	3	3	3

Eurofins | mgt Unit F3, Building F, 16 Mars Road, Lane Cove West, NSW, Australia, 2066
ABN : 50 005 085 521 Telephone : +61 2 9900 8400

Date Reported:Feb 09, 2018

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

QC Data General Comments

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

Quality Control Results

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1.0	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 10			10	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Boron	mg/kg	< 10			10	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Manganese	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 0.2			0.2	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	98			70-130	Pass	
TRH C10-C14	%	74			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	100			70-130	Pass	
Ethylbenzene	%	98			70-130	Pass	
m&p-Xylenes	%	100			70-130	Pass	
o-Xylene	%	100			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Xylenes - Total	%	100			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	125			70-130	Pass	
TRH C6-C10	%	91			70-130	Pass	
TRH >C10-C16	%	71			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	87			70-130	Pass	
Acenaphthylene	%	93			70-130	Pass	
Anthracene	%	99			70-130	Pass	
Benz(a)anthracene	%	92			70-130	Pass	
Benzo(a)pyrene	%	88			70-130	Pass	
Benzo(b&j)fluoranthene	%	96			70-130	Pass	
Benzo(g.h.i)perylene	%	92			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	92			70-130	Pass	
Dibenz(a.h)anthracene	%	92			70-130	Pass	
Fluoranthene	%	95			70-130	Pass	
Fluorene	%	92			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	94			70-130	Pass	
Phenanthrene	%	96			70-130	Pass	
Pyrene	%	94			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	74			70-130	Pass	
4.4'-DDD	%	100			70-130	Pass	
4.4'-DDE	%	94			70-130	Pass	
4.4'-DDT	%	82			70-130	Pass	
a-BHC	%	79			70-130	Pass	
Aldrin	%	82			70-130	Pass	
b-BHC	%	81			70-130	Pass	
d-BHC	%	80			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	88			70-130	Pass	
Endosulfan II	%	90			70-130	Pass	
Endosulfan sulphate	%	94			70-130	Pass	
Endrin	%	89			70-130	Pass	
Endrin aldehyde	%	88			70-130	Pass	
Endrin ketone	%	98			70-130	Pass	
g-BHC (Lindane)	%	86			70-130	Pass	
Heptachlor	%	78			70-130	Pass	
Heptachlor epoxide	%	86			70-130	Pass	
Hexachlorobenzene	%	74			70-130	Pass	
Methoxychlor	%	89			70-130	Pass	
Toxaphene	%	84			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	87			70-130	Pass	
Dimethoate	%	84			70-130	Pass	
Ethion	%	80			70-130	Pass	
Fenitrothion	%	85			70-130	Pass	
Methyl parathion	%	94			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mevinphos	%	83			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	122			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	89			30-130	Pass	
2.4-Dichlorophenol	%	94			30-130	Pass	
2.4.5-Trichlorophenol	%	87			30-130	Pass	
2.4.6-Trichlorophenol	%	90			30-130	Pass	
2.6-Dichlorophenol	%	93			30-130	Pass	
4-Chloro-3-methylphenol	%	91			30-130	Pass	
Pentachlorophenol	%	94			30-130	Pass	
Tetrachlorophenols - Total	%	89			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	91			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	86			30-130	Pass	
2-Methylphenol (o-Cresol)	%	98			30-130	Pass	
2-Nitrophenol	%	88			30-130	Pass	
2.4-Dimethylphenol	%	91			30-130	Pass	
2.4-Dinitrophenol	%	84			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	94			30-130	Pass	
4-Nitrophenol	%	88			30-130	Pass	
Dinoseb	%	95			30-130	Pass	
Phenol	%	81			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	109			70-130	Pass	
Barium	%	112			70-130	Pass	
Beryllium	%	108			70-130	Pass	
Boron	%	114			70-130	Pass	
Cadmium	%	109			70-130	Pass	
Chromium	%	112			70-130	Pass	
Cobalt	%	113			70-130	Pass	
Copper	%	112			70-130	Pass	
Lead	%	115			70-130	Pass	
Manganese	%	109			70-130	Pass	
Mercury	%	111			70-130	Pass	
Molybdenum	%	112			70-130	Pass	
Nickel	%	113			70-130	Pass	
Selenium	%	106			70-130	Pass	
Silver	%	111			70-130	Pass	
Tin	%	113			70-130	Pass	
Zinc	%	113			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	M18-Fe01144	NCP	%	98			70-130	Pass	
TRH C10-C14	S18-Fe05038	NCP	%	76			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M18-Fe01144	NCP	%	99			70-130	Pass	
Toluene	M18-Fe01144	NCP	%	95			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	M18-Fe01144	NCP	%	90			70-130	Pass	
m&p-Xylenes	M18-Fe01144	NCP	%	100			70-130	Pass	
o-Xylene	M18-Fe01144	NCP	%	95			70-130	Pass	
Xylenes - Total	M18-Fe01144	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M18-Fe01144	NCP	%	93			70-130	Pass	
TRH C6-C10	M18-Fe01144	NCP	%	98			70-130	Pass	
TRH >C10-C16	S18-Fe05038	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S18-Fe05987	NCP	%	129			70-130	Pass	
Endrin ketone	S18-Fe05987	NCP	%	120			70-130	Pass	
Toxaphene	S18-Fe07645	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S18-Fe03129	NCP	%	117			70-130	Pass	
Barium	S18-Fe03129	NCP	%	129			70-130	Pass	
Beryllium	S18-Fe03129	NCP	%	113			70-130	Pass	
Boron	S18-Fe03129	NCP	%	114			70-130	Pass	
Cadmium	S18-Fe03129	NCP	%	112			70-130	Pass	
Chromium	S18-Fe03129	NCP	%	123			70-130	Pass	
Cobalt	S18-Fe03129	NCP	%	115			70-130	Pass	
Copper	S18-Fe03129	NCP	%	115			70-130	Pass	
Lead	S18-Fe03129	NCP	%	115			70-130	Pass	
Manganese	S18-Fe03129	NCP	%	114			70-130	Pass	
Mercury	S18-Fe03129	NCP	%	118			70-130	Pass	
Molybdenum	S18-Fe03129	NCP	%	125			70-130	Pass	
Nickel	S18-Fe03129	NCP	%	123			70-130	Pass	
Selenium	S18-Fe03129	NCP	%	116			70-130	Pass	
Silver	S18-Fe03129	NCP	%	112			70-130	Pass	
Zinc	S18-Fe03129	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S18-Fe01622	CP	%	90			70-130	Pass	
Acenaphthylene	S18-Fe01622	CP	%	96			70-130	Pass	
Anthracene	S18-Fe01622	CP	%	101			70-130	Pass	
Benz(a)anthracene	S18-Fe01622	CP	%	94			70-130	Pass	
Benzo(a)pyrene	S18-Fe01622	CP	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	S18-Fe01622	CP	%	99			70-130	Pass	
Benzo(g.h.i)perylene	S18-Fe01622	CP	%	101			70-130	Pass	
Benzo(k)fluoranthene	S18-Fe01622	CP	%	99			70-130	Pass	
Chrysene	S18-Fe01622	CP	%	95			70-130	Pass	
Dibenz(a.h)anthracene	S18-Fe01622	CP	%	99			70-130	Pass	
Fluoranthene	S18-Fe01622	CP	%	98			70-130	Pass	
Fluorene	S18-Fe01622	CP	%	94			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S18-Fe01622	CP	%	101			70-130	Pass	
Naphthalene	S18-Fe01622	CP	%	96			70-130	Pass	
Phenanthrene	S18-Fe01622	CP	%	98			70-130	Pass	
Pyrene	S18-Fe01622	CP	%	96			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDE	S18-Fe01622	CP	%	126			70-130	Pass	
4.4'-DDT	S18-Fe01622	CP	%	99			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
a-BHC	S18-Fe01622	CP	%	119			70-130	Pass	
Aldrin	S18-Fe01622	CP	%	110			70-130	Pass	
b-BHC	S18-Fe01622	CP	%	116			70-130	Pass	
d-BHC	S18-Fe01622	CP	%	118			70-130	Pass	
Dieldrin	S18-Fe01622	CP	%	127			70-130	Pass	
Endosulfan I	S18-Fe01622	CP	%	120			70-130	Pass	
Endosulfan II	S18-Fe01622	CP	%	120			70-130	Pass	
Endosulfan sulphate	S18-Fe01622	CP	%	119			70-130	Pass	
Endrin	S18-Fe01622	CP	%	123			70-130	Pass	
Endrin aldehyde	S18-Fe01622	CP	%	107			70-130	Pass	
g-BHC (Lindane)	S18-Fe01622	CP	%	122			70-130	Pass	
Heptachlor	S18-Fe01622	CP	%	106			70-130	Pass	
Heptachlor epoxide	S18-Fe01622	CP	%	116			70-130	Pass	
Hexachlorobenzene	S18-Fe01622	CP	%	106			70-130	Pass	
Methoxychlor	S18-Fe01622	CP	%	117			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S18-Fe01622	CP	%	89			70-130	Pass	
Dimethoate	S18-Fe01622	CP	%	75			70-130	Pass	
Ethion	S18-Fe01622	CP	%	86			70-130	Pass	
Fenitrothion	S18-Fe01622	CP	%	89			70-130	Pass	
Methyl parathion	S18-Fe01622	CP	%	98			70-130	Pass	
Mevinphos	S18-Fe01622	CP	%	83			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S18-Fe01622	CP	%	104			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S18-Fe01622	CP	%	94			30-130	Pass	
2.4-Dichlorophenol	S18-Fe01622	CP	%	100			30-130	Pass	
2.4.5-Trichlorophenol	S18-Fe01622	CP	%	101			30-130	Pass	
2.4.6-Trichlorophenol	S18-Fe01622	CP	%	89			30-130	Pass	
2.6-Dichlorophenol	S18-Fe01622	CP	%	96			30-130	Pass	
4-Chloro-3-methylphenol	S18-Fe01622	CP	%	96			30-130	Pass	
Pentachlorophenol	S18-Fe01622	CP	%	106			30-130	Pass	
Tetrachlorophenols - Total	S18-Fe01622	CP	%	98			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	S18-Fe01622	CP	%	83			30-130	Pass	
2-Methyl-4.6-dinitrophenol	S18-Fe01622	CP	%	85			30-130	Pass	
2-Methylphenol (o-Cresol)	S18-Fe01622	CP	%	93			30-130	Pass	
2-Nitrophenol	S18-Fe01622	CP	%	93			30-130	Pass	
2.4-Dimethylphenol	S18-Fe01622	CP	%	91			30-130	Pass	
2.4-Dinitrophenol	S18-Fe01622	CP	%	84			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S18-Fe01622	CP	%	98			30-130	Pass	
4-Nitrophenol	S18-Fe01622	CP	%	92			30-130	Pass	
Dinoseb	S18-Fe01622	CP	%	93			30-130	Pass	
Phenol	S18-Fe01622	CP	%	91			30-130	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	M18-Fe01143	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S18-Fe01621	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S18-Fe01621	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S18-Fe01621	CP	mg/kg	< 50	< 50	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M18-Fe01143	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M18-Fe01143	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M18-Fe01143	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M18-Fe01143	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M18-Fe01143	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M18-Fe01143	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M18-Fe01143	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M18-Fe01143	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S18-Fe01621	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S18-Fe01621	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S18-Fe01621	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S18-Fe01621	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S18-Fe01621	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S18-Fe01621	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S18-Fe01621	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S18-Fe01621	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S18-Fe01621	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S18-Fe01621	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S18-Fe01621	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S18-Fe01621	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	S18-Fe01621	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S18-Fe01621	CP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S18-Fe01621	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S18-Fe01621	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S18-Fe01621	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S18-Fe01621	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S18-Fe02693	NCP	mg/kg	9.5	8.8	8.0	30%	Pass	
Barium	S18-Fe02693	NCP	mg/kg	120	140	16	30%	Pass	
Beryllium	S18-Fe02693	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Boron	S18-Fe02693	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Cadmium	S18-Fe02693	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S18-Fe02693	NCP	mg/kg	19	19	4.0	30%	Pass	
Cobalt	S18-Fe02693	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S18-Fe02693	NCP	mg/kg	14	13	14	30%	Pass	
Lead	S18-Fe02693	NCP	mg/kg	21	21	1.0	30%	Pass	
Manganese	S18-Fe03189	NCP	mg/kg	98	96	2.0	30%	Pass	
Mercury	S18-Fe05860	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	S18-Fe02693	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	S18-Fe02693	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Selenium	S18-Fe02693	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	S18-Fe02693	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tin	S18-Fe02693	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	S18-Fe02693	NCP	mg/kg	19	20	4.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S18-Fe09647	NCP	%	2.4	2.8	16	30%	Pass	

Comments

Sample Integrity

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

Comments

Qualifier Codes/Comments

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

Authorised By

Nibha Vaidya	Analytical Services Manager
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

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

Certificate of Analysis

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

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	Peter Oitmaa
Report	582909-AID
Project Name	RICHMOND
Project ID	85644.04
Received Date	Feb 02, 2018
Date Reported	Feb 09, 2018

Methodology:

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

Project Name RICHMOND
Project ID 85644.04
Date Sampled Jan 25, 2018
Report 582909-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BT25	18-Fe01621	Jan 25, 2018	Approximate Sample 73g Sample consisted of: Brown fine grain sandy soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
BT23	18-Fe01622	Jan 25, 2018	Approximate Sample 77g Sample consisted of: Brown fine grain sandy soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.
BT17	18-Fe01623	Jan 25, 2018	Approximate Sample 86g Sample consisted of: Brown fine grain sandy soil	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Feb 02, 2018	Indefinite

eurofins | mgt

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

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

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

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

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

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: RICHMOND
Project ID: 85644.04

Order No.:
Report #: 582909
Phone: 02 9809 0666
Fax:

Received: Feb 2, 2018 3:00 PM
Due: Feb 9, 2018
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Phenols (IWRG 621)	BTEX	VIC EPA Metals : Metals M17	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BT25	Jan 25, 2018		Soil	S18-Fe01621	X	X	X	X	X	X	X	X	X	X
2	BT23	Jan 25, 2018		Soil	S18-Fe01622	X	X	X	X	X	X	X	X	X	X
3	BT17	Jan 25, 2018		Soil	S18-Fe01623	X	X	X	X	X	X	X	X	X	X
Test Counts						3	3	3	3	3	3	3	3	3	3

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

Units

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

Terms

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

Comments

The samples received were not collected in an approved asbestos bag and was therefore sub-sampled from the 250mL glass jar. Valid sub-sampling procedures were applied so as to ensure that the sub-samples to be analysed accurately represented the samples received.

Sample Integrity

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

Comments

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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

Melbourne
2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1254
Site# 1427

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

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	582909 02 9809 0666
Project Name:	RICHMOND		
Project ID:	85644.04		

Received:	Feb 2, 2018 3:00 PM
Due:	Feb 9, 2018
Priority:	5 Day
Contact Name:	Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Phenols (IWRG 621)	BTEX	VIC EPA Metals : Metals M17	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
	BT25	Jan 25, 2018		Soil	S18-Fe01621	X	X	X	X	X	X	X	X	X	X
	BT23	Jan 25, 2018		Soil	S18-Fe01622	X	X	X	X	X	X	X	X	X	X
	BT17	Jan 25, 2018		Soil	S18-Fe01623	X	X	X	X	X	X	X	X	X	X
Test Counts						3	3	3	3	3	3	3	3	3	3

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

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

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

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

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

Sample Receipt Advice

Company name:	**Douglas Partners (Syd)**
Contact name:	Peter Oitmaa
Project name:	RICHMOND
Project ID:	85644.04
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Feb 2, 2018 3:00 PM
Eurofins | mgt reference:	**582909**

Sample information

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

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

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

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

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

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

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

Results will be delivered electronically via e.mail to Peter Oitmaa - peter.oitmaa@douglaspartners.com.au.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Notes
C1	0.9-1.0	1	24.1	S	Jar		✓	582909
C5	0-0.1	2	25.1					
C10	0-0.1	3	"					
C11	0.4-0.5	4	"					
C12	0-0.1	5	"					
C13	0-0.1	6	"					
C14	0.4-0.5	7	23.1					
C15	0-0.1	8	25.1					
C19	0.4-0.5	9	23.1					
C20	0-0.1	10	"					
C21	0.4-0.5	11	"					
C22	0-0.1	12	25.1					

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 184207
Date Received: 31/1/18
Time Received: 14.30
Received by: RW
Temp: Cool/Ambient
Cool: Ice/Icepack
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 30/1/18	Received By: ELS Rebecca	Date & Time:	31/1/18 14:30 RW
Relinquished by: JACK EMBLEN ELS	Signed:	Date & Time: 01.02.18 12:45	Received By: R Phillips	Date & Time:	1/2/18 3pm

P1/7

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C23	0.1-0.2	13	25.1	S	Jar									
C25	0-0.1	14	"											
C28	0.5-0.6	15	24.1											
C29	0-0.1	16	23.1											
C30	0-0.1	17	"											
C31	0.4-0.5	18	25.1				✓							
C32	0-0.1	19	"											
C33	0.4-0.5	20	"											
C34	0-0.1	21	24.1											
C36	0-0.1	22	"											
C38	0-0.1	23	23.1											
C39	0.4-0.5	24	25.1											

not received RW

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO Signed: Date & Time: 30/1/18 Received By: Date & Time: 31/1/18

Relinquished by: ELS JAKE EMBLEN Signed: Date & Time: 01.02.18 12:45 Received By: Date & Time:

P2/7

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes								Notes
						Combo 8a	pH CEC							
C 40	0-0.1	25	25.1	S	Jar									
C 41	0-0.1	26	24.1											
C 44	0-0.1	27	23.1											
C 45	0.4-0.5	28	25.1											
C 46	0-0.1	29	25.1											
C 47	0.4-0.5	30	22.1				✓							
C 48	0-0.1	31	24.1											
C 49	0.4-0.5	32	22.1											
C 50	0-0.1	33	24.1											
C 51	0-0.05	34	23.1											
C 52	0.4-0.5	35	25.1											
C 53	0.4-0.5	36	22.1											

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 30/1/18	Received By:	Date & Time:	31/1/18
Relinquished by: EES Jake Emerson	Signed:	Date & Time: 01.02.18 12:45	Received By:	Date & Time:	

P3/7

Form COC Rev0/November 2006

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	Analytes: pH CEC	Analytes	Analytes	Analytes	Analytes	Analytes	Analytes	Notes
C54	0-0.1	37	22.1	S	Jar									
C55	0-0.1	38	22.1											
C57	0.4-0.5	34	23.1											
C58	0-0.1	40	"											
C59	0-0.1	41	22.1				✓							
C60	0-0.1	42	"											
C62	0-0.1	43	24.1											
C63	0.3-0.4	44	23.1											
C64	0-0.1	45	"											
C65	0-0.1	46	22.1											
C66	0.4-0.5	47	"											
C67	0.4-0.5	48	24.1											

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Fax: (02) 9809 4095

Relinquished by: PMO	Signed:	Date & Time: 30/1/18	Received By:	Date & Time: 31/1/18
Relinquished by: ELS JACK PARCELL	Signed:	Date & Time: 01.02.18 12:45	Received By:	Date & Time:

P4/7

Form COC Rev0/November 2006

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type (S - soil, W – water)	Container type	Analytes: Combo 8a	Analytes: pH CEC						Notes
C68	0-0.1	44	23.1	S	Jar								
C69	0-0.1	50	"										
C70	0.4-0.5	51	"										
C72	0.1-0.2	52	24.1										
C73	0-0.1	53	23.1										
C74	0-0.1	54	"										
C77	0.4-0.5	55	24.1				✓						
C78	0.2-0.3	56	23.1										
C86	0.4-0.5	57	22.1										
C87	0-0.1	58	24.1										
C91	0-0.1	59	22.1										
C92	0.4-0.5	60	"										

Lab Report No. ....
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095
Relinquished by: PMO Signed: [signature] Date & Time: 30/1/18 Received By: [signature] Date & Time: 31/1/18
Relinquished by: ELS Jack Engleen Signed: [signature] Date & Time: 01.02.18 12:45 Received By: Date & Time:

P5/7

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	Asbestos ID						Notes
C93	0.1-0.2	61	24-1	S	Jar									
C97	0-0.1	62	22-1											
C98	0.4-0.5	63	"											
C99	0.4-0.5	64	"											
C100	0-0.1	65	24-1				✓							
C107	0-0.1	66	22-1											
C111	0.4-0.5	67	"											
C118	0-0.1	68	"											
Stockpile 1	—	69	23-1											
Stockpile 2	—	70	"											
C34	—	71	24-1	Material	Bag			✓						Fragments
C41	—	72	"		Bag			✓						"

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by: PMO Signed: Date & Time: 30/1/18 Received By: Date & Time: 30/1/18

Relinquished by: ELS JACK GARDEN Signed: Date & Time: 01.02.18 12:45 Received By: Date & Time:

P6/7

Form COC Rev0/November 2006

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Combo 8a	pH CEC	Asbestos ID					Notes
C47	—	73	22-1	Material	Bag			✓					Fragments
C60	—	74	11	|	|			✓						11
BD25	250118	75	25-1	Soil	Jar								
BD23	250118	76	11										
BD17	230118	77	23-1										
BT25	250118	[illegible]	25-1										Send BT samples to Eurofins
BT23	250118	[illegible]	11										
BT17	230118	[illegible]	23-1										
TP47	0-0.1	78		S	Bag								
TP70	0-0.1	79		S	Bag								

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114 Phone: (02) 9809 0666 Fax: (02) 9809 4095

Relinquished by: PMO	Signed: PMO	Date & Time: 30/1/18	Received By: [illegible]	Date & Time: 31/1/18	
Relinquished by: JACK EMBLEN ELS	Signed: [illegible]	Date & Time: 01.02.18 12:45	Received By:	Date & Time:	

P7/7

Form COC Rev0/November 2006

Certificate of Analysis

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention: **Peter Oitmaa**

Report **583286-S**
Project name RICHMOND
Project ID 85644.04
Received Date Feb 05, 2018

Client Sample ID			**BT26**
Sample Matrix			**Soil**
Eurofins | mgt Sample No.			**S18-Fe05038**
Date Sampled			**Jan 29, 2018**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-36 (Total)	50	mg/kg	< 50
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5

Client Sample ID			BT26
Sample Matrix			Soil
Eurofins | mgt Sample No.			S18-Fe05038
Date Sampled			Jan 29, 2018
Test/Reference	LOR	Unit	
Polycyclic Aromatic Hydrocarbons			
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	96
p-Terphenyl-d14 (surr.)	1	%	104
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2
Toxaphene	1	mg/kg	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	110
Tetrachloro-m-xylene (surr.)	1	%	117
Organophosphorus Pesticides			
Azinphos-methyl	0.2	mg/kg	< 0.2
Bolstar	0.2	mg/kg	< 0.2
Chlorfenvinphos	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2
Coumaphos	2	mg/kg	< 2
Demeton-S	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Dimethoate	0.2	mg/kg	< 0.2

Client Sample ID			BT26
Sample Matrix			Soil
Eurofins | mgt Sample No.			S18-Fe05038
Date Sampled			Jan 29, 2018
Test/Reference	LOR	Unit	
Organophosphorus Pesticides			
Disulfoton	0.2	mg/kg	< 0.2
EPN	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Ethyl parathion	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Malathion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Monocrotophos	2	mg/kg	< 2
Naled	0.2	mg/kg	< 0.2
Omethoate	2	mg/kg	< 2
Phorate	0.2	mg/kg	< 0.2
Pirimiphos-methyl	0.2	mg/kg	< 0.2
Pyrazophos	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Terbufos	0.2	mg/kg	< 0.2
Tetrachlorvinphos	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	71
Polychlorinated Biphenyls			
Aroclor-1016	0.5	mg/kg	< 0.5
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.5	mg/kg	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5
Total PCB*	0.5	mg/kg	< 0.5
Dibutylchlorendate (surr.)	1	%	110
Tetrachloro-m-xylene (surr.)	1	%	117
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1
Pentachlorophenol	1.0	mg/kg	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1
Total Halogenated Phenol*	1	mg/kg	< 1

Client Sample ID			BT26
Sample Matrix			Soil
Eurofins | mgt Sample No.			S18-Fe05038
Date Sampled			Jan 29, 2018
Test/Reference	LOR	Unit	
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
2-Nitrophenol	1	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	0.8
Total Non-Halogenated Phenol*	20	mg/kg	< 20
Phenol-d6 (surr.)	1	%	101
Heavy Metals			
Arsenic	2	mg/kg	< 2
Barium	10	mg/kg	< 10
Beryllium	2	mg/kg	< 2
Boron	10	mg/kg	< 10
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	< 5
Cobalt	5	mg/kg	< 5
Copper	5	mg/kg	< 5
Lead	5	mg/kg	< 5
Manganese	5	mg/kg	7.3
Mercury	0.1	mg/kg	< 0.1
Molybdenum	5	mg/kg	5.2
Nickel	5	mg/kg	< 5
Selenium	2	mg/kg	2.2
Silver	0.2	mg/kg	< 0.2
Tin	10	mg/kg	< 10
Zinc	5	mg/kg	< 5
% Moisture	1	%	< 1

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	Feb 06, 2018	14 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
BTEX	Sydney	Feb 06, 2018	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 06, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
Organochlorine Pesticides	Sydney	Feb 06, 2018	14 Day
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Feb 06, 2018	14 Day
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Polychlorinated Biphenyls	Sydney	Feb 06, 2018	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
VIC EPA Metals : Metals M17	Sydney	Feb 06, 2018	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
Phenols (Halogenated)	Sydney	Feb 06, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
Phenols (non-Halogenated)	Sydney	Feb 06, 2018	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soils by GCMS			
% Moisture	Sydney	Feb 05, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

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

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

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

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: RICHMOND
Project ID: 85644.04

Order No.:
Report #: 583286
Phone: 02 9809 0666
Fax:

Received: Feb 5, 2018 2:48 PM
Due: Feb 12, 2018
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Phenols (IWRG 621)	BTEX	VIC EPA Metals : Metals M17	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID										
	BT26	Jan 29, 2018		Soil	S18-Fe05038	X	X	X	X	X	X	X	X	X	X
Test Counts						1	1	1	1	1	1	1	1	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

Terms

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

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

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

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

QC Data General Comments

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

Quality Control Results

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

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB*	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1.0	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 10			10	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Boron	mg/kg	< 10			10	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Cobalt	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Manganese	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 5			5	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 0.2			0.2	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	93			70-130	Pass	
TRH C10-C14	%	76			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	94			70-130	Pass	
Toluene	%	103			70-130	Pass	
Ethylbenzene	%	104			70-130	Pass	
m&p-Xylenes	%	101			70-130	Pass	
o-Xylene	%	99			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Xylenes - Total	%	100			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	107			70-130	Pass	
TRH C6-C10	%	89			70-130	Pass	
TRH >C10-C16	%	74			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	87			70-130	Pass	
Acenaphthylene	%	93			70-130	Pass	
Anthracene	%	99			70-130	Pass	
Benz(a)anthracene	%	92			70-130	Pass	
Benzo(a)pyrene	%	88			70-130	Pass	
Benzo(b&j)fluoranthene	%	96			70-130	Pass	
Benzo(g.h.i)perylene	%	92			70-130	Pass	
Benzo(k)fluoranthene	%	96			70-130	Pass	
Chrysene	%	92			70-130	Pass	
Dibenz(a.h)anthracene	%	92			70-130	Pass	
Fluoranthene	%	95			70-130	Pass	
Fluorene	%	92			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	94			70-130	Pass	
Phenanthrene	%	96			70-130	Pass	
Pyrene	%	94			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	74			70-130	Pass	
4.4'-DDD	%	100			70-130	Pass	
4.4'-DDE	%	94			70-130	Pass	
4.4'-DDT	%	82			70-130	Pass	
a-BHC	%	79			70-130	Pass	
Aldrin	%	82			70-130	Pass	
b-BHC	%	81			70-130	Pass	
d-BHC	%	80			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	88			70-130	Pass	
Endosulfan II	%	90			70-130	Pass	
Endosulfan sulphate	%	94			70-130	Pass	
Endrin	%	89			70-130	Pass	
Endrin aldehyde	%	88			70-130	Pass	
Endrin ketone	%	98			70-130	Pass	
g-BHC (Lindane)	%	86			70-130	Pass	
Heptachlor	%	78			70-130	Pass	
Heptachlor epoxide	%	86			70-130	Pass	
Hexachlorobenzene	%	74			70-130	Pass	
Methoxychlor	%	89			70-130	Pass	
Toxaphene	%	84			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	84			70-130	Pass	
Dimethoate	%	81			70-130	Pass	
Ethion	%	91			70-130	Pass	
Fenitrothion	%	92			70-130	Pass	
Methyl parathion	%	95			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Mevinphos	%	89			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1260	%	122			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	89			30-130	Pass	
2.4-Dichlorophenol	%	94			30-130	Pass	
2.4.5-Trichlorophenol	%	87			30-130	Pass	
2.4.6-Trichlorophenol	%	90			30-130	Pass	
2.6-Dichlorophenol	%	93			30-130	Pass	
4-Chloro-3-methylphenol	%	91			30-130	Pass	
Pentachlorophenol	%	94			30-130	Pass	
Tetrachlorophenols - Total	%	89			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	91			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	86			30-130	Pass	
2-Methylphenol (o-Cresol)	%	98			30-130	Pass	
2-Nitrophenol	%	88			30-130	Pass	
2.4-Dimethylphenol	%	91			30-130	Pass	
2.4-Dinitrophenol	%	84			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	94			30-130	Pass	
4-Nitrophenol	%	88			30-130	Pass	
Dinoseb	%	95			30-130	Pass	
Phenol	%	81			30-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			70-130	Pass	
Barium	%	100			70-130	Pass	
Beryllium	%	100			70-130	Pass	
Boron	%	103			70-130	Pass	
Cadmium	%	101			70-130	Pass	
Chromium	%	99			70-130	Pass	
Cobalt	%	99			70-130	Pass	
Copper	%	100			70-130	Pass	
Lead	%	94			70-130	Pass	
Manganese	%	96			70-130	Pass	
Mercury	%	99			70-130	Pass	
Molybdenum	%	97			70-130	Pass	
Nickel	%	104			70-130	Pass	
Selenium	%	96			70-130	Pass	
Silver	%	101			70-130	Pass	
Tin	%	102			70-130	Pass	
Zinc	%	103			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	S18-Fe05038	CP	%	92			70-130	Pass	
TRH C10-C14	S18-Fe05038	CP	%	76			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S18-Fe05038	CP	%	93			70-130	Pass	
Toluene	S18-Fe05038	CP	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	S18-Fe05038	CP	%	101			70-130	Pass	
m&p-Xylenes	S18-Fe05038	CP	%	99			70-130	Pass	
o-Xylene	S18-Fe05038	CP	%	98			70-130	Pass	
Xylenes - Total	S18-Fe05038	CP	%	99			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S18-Fe05038	CP	%	99			70-130	Pass	
TRH C6-C10	S18-Fe05038	CP	%	87			70-130	Pass	
TRH >C10-C16	S18-Fe05038	CP	%	79			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S18-Fe01622	NCP	%	90			70-130	Pass	
Acenaphthylene	S18-Fe01622	NCP	%	96			70-130	Pass	
Anthracene	S18-Fe01622	NCP	%	101			70-130	Pass	
Benz(a)anthracene	S18-Fe01622	NCP	%	94			70-130	Pass	
Benzo(a)pyrene	S18-Fe01622	NCP	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	S18-Fe01622	NCP	%	99			70-130	Pass	
Benzo(g.h.i)perylene	S18-Fe01622	NCP	%	101			70-130	Pass	
Benzo(k)fluoranthene	S18-Fe01622	NCP	%	99			70-130	Pass	
Chrysene	S18-Fe01622	NCP	%	95			70-130	Pass	
Dibenz(a.h)anthracene	S18-Fe01622	NCP	%	99			70-130	Pass	
Fluoranthene	S18-Fe01622	NCP	%	98			70-130	Pass	
Fluorene	S18-Fe01622	NCP	%	94			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S18-Fe01622	NCP	%	101			70-130	Pass	
Naphthalene	S18-Fe01622	NCP	%	96			70-130	Pass	
Phenanthrene	S18-Fe01622	NCP	%	98			70-130	Pass	
Pyrene	S18-Fe01622	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S18-Fe05987	NCP	%	129			70-130	Pass	
4.4'-DDE	S18-Fe01622	NCP	%	126			70-130	Pass	
4.4'-DDT	S18-Fe01622	NCP	%	99			70-130	Pass	
a-BHC	S18-Fe01622	NCP	%	119			70-130	Pass	
Aldrin	S18-Fe01622	NCP	%	110			70-130	Pass	
b-BHC	S18-Fe01622	NCP	%	116			70-130	Pass	
d-BHC	S18-Fe01622	NCP	%	118			70-130	Pass	
Dieldrin	S18-Fe01622	NCP	%	127			70-130	Pass	
Endosulfan I	S18-Fe01622	NCP	%	120			70-130	Pass	
Endosulfan II	S18-Fe01622	NCP	%	120			70-130	Pass	
Endosulfan sulphate	S18-Fe01622	NCP	%	119			70-130	Pass	
Endrin	S18-Fe01622	NCP	%	123			70-130	Pass	
Endrin aldehyde	S18-Fe01622	NCP	%	107			70-130	Pass	
Endrin ketone	S18-Fe05987	NCP	%	120			70-130	Pass	
g-BHC (Lindane)	S18-Fe01622	NCP	%	122			70-130	Pass	
Heptachlor	S18-Fe01622	NCP	%	106			70-130	Pass	
Heptachlor epoxide	S18-Fe01622	NCP	%	116			70-130	Pass	
Hexachlorobenzene	S18-Fe01622	NCP	%	106			70-130	Pass	
Methoxychlor	S18-Fe01622	NCP	%	117			70-130	Pass	
Toxaphene	S18-Fe07645	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Organophosphorus Pesticides				Result 1					
Diazinon	S18-Fe01622	NCP	%	89			70-130	Pass	
Dimethoate	S18-Fe01622	NCP	%	75			70-130	Pass	
Ethion	S18-Fe01622	NCP	%	86			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fenitrothion	S18-Fe01622	NCP	%	89			70-130	Pass	
Methyl parathion	S18-Fe01622	NCP	%	98			70-130	Pass	
Mevinphos	S18-Fe01622	NCP	%	83			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	S18-Fe04630	NCP	%	121			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S18-Fe01622	NCP	%	94			30-130	Pass	
2.4-Dichlorophenol	S18-Fe01622	NCP	%	100			30-130	Pass	
2.4.5-Trichlorophenol	S18-Fe01622	NCP	%	101			30-130	Pass	
2.4.6-Trichlorophenol	S18-Fe01622	NCP	%	89			30-130	Pass	
2.6-Dichlorophenol	S18-Fe01622	NCP	%	96			30-130	Pass	
4-Chloro-3-methylphenol	S18-Fe01622	NCP	%	96			30-130	Pass	
Pentachlorophenol	S18-Fe01622	NCP	%	106			30-130	Pass	
Tetrachlorophenols - Total	S18-Fe01622	NCP	%	98			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	S18-Fe01622	NCP	%	83			30-130	Pass	
2-Methyl-4.6-dinitrophenol	S18-Fe01622	NCP	%	85			30-130	Pass	
2-Methylphenol (o-Cresol)	S18-Fe01622	NCP	%	93			30-130	Pass	
2-Nitrophenol	S18-Fe01622	NCP	%	93			30-130	Pass	
2.4-Dimethylphenol	S18-Fe01622	NCP	%	91			30-130	Pass	
2.4-Dinitrophenol	S18-Fe01622	NCP	%	84			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S18-Fe01622	NCP	%	98			30-130	Pass	
4-Nitrophenol	S18-Fe01622	NCP	%	92			30-130	Pass	
Dinoseb	S18-Fe01622	NCP	%	93			30-130	Pass	
Phenol	S18-Fe01622	NCP	%	91			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S18-Fe03190	NCP	%	130			70-130	Pass	
Barium	S18-Fe03190	NCP	%	123			70-130	Pass	
Beryllium	S18-Fe03190	NCP	%	115			70-130	Pass	
Boron	S18-Fe03190	NCP	%	108			70-130	Pass	
Cadmium	S18-Fe03190	NCP	%	130			70-130	Pass	
Chromium	S18-Fe03190	NCP	%	110			70-130	Pass	
Cobalt	S18-Fe03190	NCP	%	109			70-130	Pass	
Copper	S18-Fe03190	NCP	%	111			70-130	Pass	
Lead	S18-Fe03190	NCP	%	123			70-130	Pass	
Manganese	S18-Fe03190	NCP	%	106			70-130	Pass	
Mercury	S18-Fe03190	NCP	%	125			70-130	Pass	
Molybdenum	S18-Fe03190	NCP	%	123			70-130	Pass	
Nickel	S18-Fe03190	NCP	%	115			70-130	Pass	
Selenium	S18-Fe03190	NCP	%	125			70-130	Pass	
Silver	S18-Fe03190	NCP	%	130			70-130	Pass	
Zinc	S18-Fe03190	NCP	%	113			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	S18-Fe03130	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S18-Fe01621	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S18-Fe01621	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S18-Fe01621	NCP	mg/kg	< 50	< 50	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S18-Fe03130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S18-Fe03130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S18-Fe03130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S18-Fe03130	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S18-Fe03130	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S18-Fe03130	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S18-Fe03130	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S18-Fe03130	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S18-Fe01621	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S18-Fe01621	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S18-Fe01621	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S18-Fe01621	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S18-Fe01621	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S18-Fe01621	NCP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Bolstar	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorfenvinphos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos-methyl	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Coumaphos	S18-Fe01621	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Demeton-S	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dimethoate	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
EPN	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethyl parathion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Fenitrothion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Malathion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Monocrotophos	S18-Fe01621	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Naled	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Omethoate	S18-Fe01621	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Phorate	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pirimiphos-methyl	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Pyrazophos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Terbufos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tetrachlorvinphos	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	S18-Fe01621	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S18-Fe04629	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1221	S18-Fe04629	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S18-Fe04629	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S18-Fe04629	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S18-Fe04629	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S18-Fe04629	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S18-Fe04629	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S18-Fe03189	NCP	mg/kg	13	12	2.0	30%	Pass	
Barium	S18-Fe03189	NCP	mg/kg	88	87	1.0	30%	Pass	
Beryllium	S18-Fe03189	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Boron	S18-Fe03189	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Cadmium	S18-Fe03189	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S18-Fe03189	NCP	mg/kg	34	34	2.0	30%	Pass	
Cobalt	S18-Fe03189	NCP	mg/kg	6.2	6.0	2.0	30%	Pass	
Copper	S18-Fe03189	NCP	mg/kg	13	13	2.0	30%	Pass	
Lead	S18-Fe03189	NCP	mg/kg	19	19	1.0	30%	Pass	
Manganese	S18-Fe03189	NCP	mg/kg	98	96	2.0	30%	Pass	
Mercury	S18-Fe03189	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Molybdenum	S18-Fe03189	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Nickel	S18-Fe03189	NCP	mg/kg	10	10	1.0	30%	Pass	
Selenium	S18-Fe03189	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	S18-Fe03189	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tin	S18-Fe03189	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	S18-Fe03189	NCP	mg/kg	25	24	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S17-Oc13513	NCP	%	4.7	4.0	17	30%	Pass	

Comments

Sample Integrity

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

Comments

Qualifier Codes/Comments

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

Authorised By

Nibha Vaidya	Analytical Services Manager
Nibha Vaidya	Senior Analyst-Asbestos (NSW)

Glenn Jackson

National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

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

Certificate of Analysis

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

Douglas Partners (Syd)
96 Hermitage Road
West Ryde
NSW 2114

Attention:	Peter Oitmaa
Report	583286-AID
Project Name	RICHMOND
Project ID	85644.04
Received Date	Feb 05, 2018
Date Reported	Feb 12, 2018

Methodology:

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

Project Name RICHMOND
Project ID 85644.04
Date Sampled Jan 29, 2018
Report 583286-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
BT26	18-Fe05038	Jan 29, 2018	Approximate Sample 75g Sample consisted of: Brown fine grain sandy soil and organic debris	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No respirable fibres detected.

Sample History

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

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

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Feb 05, 2018	Indefinite

eurofins | mgt

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

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

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

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

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

Company Name: Douglas Partners (Syd)
Address: 96 Hermitage Road
West Ryde
NSW 2114

Project Name: RICHMOND
Project ID: 85644.04

Order No.:
Report #: 583286
Phone: 02 9809 0666
Fax:

Received: Feb 5, 2018 2:48 PM
Due: Feb 12, 2018
Priority: 5 Day
Contact Name: Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Phenols (IWRG 621)	BTEX	VIC EPA Metals : Metals M17	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BT26	Jan 29, 2018		Soil	S18-Fe05038	X	X	X	X	X	X	X	X	X	X
Test Counts						1	1	1	1	1	1	1	1	1	1

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

Units

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

Terms

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

Comments

The sample received was not collected in an approved asbestos bag and was therefore sub-sampled from the 250mL glass jar. Valid sub-sampling procedures were applied so as to ensure that the sub-sample to be analysed accurately represented the sample received.

Sample Integrity

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

Comments

Qualifier Codes/Comments

Code	Description
N/A	Not applicable

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos (NSW)

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos (NSW)

Glenn Jackson
National Operations Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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

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

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

Company Name:	Douglas Partners (Syd)	**Order No.:**	
Address:	96 Hermitage Road West Ryde NSW 2114	**Report #:** **Phone:** **Fax:**	583286 02 9809 0666
Project Name:	RICHMOND		
Project ID:	85644.04		

Received:	Feb 5, 2018 2:48 PM
Due:	Feb 12, 2018
Priority:	5 Day
Contact Name:	Peter Oitmaa

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Asbestos - AS4964	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorus Pesticides	Polychlorinated Biphenyls	Phenols (IWRG 621)	BTEX	VIC EPA Metals : Metals M17	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
Perth Laboratory - NATA Site # 23736															
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
	BT26	Jan 29, 2018		Soil	S18-Fe05038	X	X	X	X	X	X	X	X	X	X
Test Counts						1	1	1	1	1	1	1	1	1	1

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

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

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

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

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

Sample Receipt Advice

Company name:	**Douglas Partners (Syd)**
Contact name:	Peter Oitmaa
Project name:	RICHMOND
Project ID:	85644.04
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Feb 5, 2018 2:48 PM
Eurofins | mgt reference:	**583286**

Sample information

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

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

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

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

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

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

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

Results will be delivered electronically via e.mail to Peter Oitmaa - peter.oitmaa@douglaspartners.com.au.

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: RICHMOND
Project No: 85644.04 Sampler: LC
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: STD Lab Quote No. .....

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

	Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W - water	Container type	Analytes: Bubo 8a								Notes
															583286
1	C2	0.4-0.5		29/1	S	Jar	✓								
2	C3	0-0.1					✓								
3	C4	0.4-0.5					✓								
4	C6	0-0.1					✓								
5	C7	0.4-0.5					✓						184337		
6	C26	0-0.1					✓						1/2/18		
7	"	0.4-0.5					✓						14:45 MT		
8	C35	0-0.1					✓						79		
9	BD26	29/1/18					✓						Ambient Ice Brick		
10	BT26	29/1/18					✓						Glass/Bricken/None		Send BT26 to Eurofins

Lab Report No. .....
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095

Relinquished by:	PMO	Signed:	Date & Time: 31.1.18	Received By: MT ELS	Date & Time: 1/2/18 14:45
Relinquished by:	JACK EMBLEN ELS	Signed:	Date & Time: 02.02.18 13:00	Received By: Elvis D	Date & Time: 5/2/18 2:48pm

12 Ashley Street, Chatswood, NSW 2067
tel: +61 2 9910 6200

email: sydney@envirolab.com.au
envirolab.com.au

Envirolab Services Pty Ltd - Sydney | ABN 37 112 535 645

CERTIFICATE OF ANALYSIS 154722

Client:
Douglas Partners Pty Ltd
96 Hermitage Rd
West Ryde
NSW 2114

Attention: Peter Oitmaa

Sample log in details:

Your Reference:	**85644.00, Richmond**		
No. of samples:	7 Soils		
Date samples received / completed instructions received	05/10/16	/	05/10/16

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:	12/10/16	/	11/10/16
Date of Preliminary Report:	Not Issued		

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

Results Approved By:

David Springer
General Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	---------- -	BH6	BH6	BH3	BH5	BH9
Depth	----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	08/10/2016	08/10/2016	08/10/2016	08/10/2016	08/10/2016
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	75	76	75	73	76

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	----------	BH6	BH6	BH3	BH5	BH9
Depth	----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
$TRHC_{10}$ - C_{14}	mg/kg	<50	<50	<50	<50	<50
$TRHC_{15}$ - C_{28}	mg/kg	<100	180	<100	<100	<100
$TRHC_{29}$ - C_{36}	mg/kg	150	370	<100	<100	<100
$TRH>C_{10}$-C_{16}	mg/kg	<50	<50	<50	<50	<50
$TRH>C_{10}$ - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
$TRH>C_{16}$-C_{34}	mg/kg	190	440	<100	<100	<100
$TRH>C_{34}$-C_{40}	mg/kg	110	380	<100	<100	<100
Surrogate o-Terphenyl	%	77	79	69	71	82

PAHs in Soil Our Reference: Your Reference	UNITS ----------	154722-1 BH6	154722-2 BH6	154722-3 BH3	154722-4 BH5	154722-5 BH9
Depth	----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.4	0.4	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.3	0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	5.7	3.0	<0.1	<0.1	<0.1
Anthracene	mg/kg	1.1	0.7	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	12	8.7	<0.1	<0.1	<0.1
Pyrene	mg/kg	11	9.0	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	3.7	2.7	<0.1	<0.1	<0.1
Chrysene	mg/kg	3.8	2.8	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	7.8	6.6	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	5.8	5.3	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	4.8	4.0	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	0.7	0.6	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	5.4	4.4	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ calc (zero)	mg/kg	8.2	7.3	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	8.2	7.3	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	8.2	7.3	<0.5	<0.5	<0.5
Total Positive PAHs	mg/kg	63	48	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	91	95	98	94	102

Organochlorine Pesticides in soil						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	----------	BH6	BH6	BH3	BH5	BH9
Depth	- ----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	08/10/2016	08/10/2016	08/10/2016	08/10/2016	08/10/2016
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	100	100	96	96

Organophosphorus Pesticides						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	----------	BH6	BH6	BH3	BH5	BH9
Depth	- ----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	08/10/2016	08/10/2016	08/10/2016	08/10/2016	08/10/2016
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	96	100	100	96	96

PCBs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- - ---------- 	154722-1 BH6 0.5 27/09/2016 Soil	154722-2 BH6 1.0 27/09/2016 Soil	154722-3 BH3 0.2 27/09/2016 Soil	154722-4 BH5 0.5 28/09/2016 Soil	154722-5 BH9 0.1 27/09/2016 Soil
Date extracted	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	08/10/2016	08/10/2016	08/10/2016	08/10/2016	08/10/2016
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	100	100	96	96

Acid Extractable metals in soil						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	----------	BH6	BH6	BH3	BH5	BH9
	-					
Depth	----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Arsenic	mg/kg	<4	<4	6	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	12	5	9	3
Copper	mg/kg	12	11	11	16	2
Lead	mg/kg	44	45	80	130	4
Mercury	mg/kg	<0.1	0.1	<0.1	0.7	<0.1
Nickel	mg/kg	10	10	4	6	2
Zinc	mg/kg	44	200	61	190	4

Misc Soil - Inorg						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	----------	BH6	BH6	BH3	BH5	BH9
Depth	- ----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Moisture Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- - ---------- 	154722-1 BH6 0.5 27/09/2016 Soil	154722-2 BH6 1.0 27/09/2016 Soil	154722-3 BH3 0.2 27/09/2016 Soil	154722-4 BH5 0.5 28/09/2016 Soil	154722-5 BH9 0.1 27/09/2016 Soil
Date prepared	-	06/10/2016	06/10/2016	06/10/2016	06/10/2016	06/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Moisture	%	8.3	14	15	15	11

Asbestos ID - soils						
Our Reference:	UNITS	154722-1	154722-2	154722-3	154722-4	154722-5
Your Reference	----------	BH6	BH6	BH3	BH5	BH9
	-					
Depth	----------	0.5	1.0	0.2	0.5	0.1
Date Sampled		27/09/2016	27/09/2016	27/09/2016	28/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10/10/2016	10/10/2016	10/10/2016	10/10/2016	10/10/2016
Sample mass tested	g	Approx. 45g	Approx. 45g	Approx. 30g	Approx. 40g	Approx. 45g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Misc Inorg - Soil					
Our Reference:	UNITS	154722-4	154722-5	154722-6	154722-7
Your Reference	----------	BH5	BH9	BH7	BH3
	-				
Depth	----------	0.5	0.1	2.5-2.95	7.0-7.45
Date Sampled		28/09/2016	27/09/2016	27/09/2016	27/09/2016
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016
Date analysed	-	07/10/2016	07/10/2016	07/10/2016	07/10/2016
pH 1:5 soil:water	pH Units	6.8	5.6	6.9	6.7
Electrical Conductivity 1:5 soil:water	µS/cm	25	23	35	350
Chloride, Cl 1:5 soil:water	mg/kg	<10	<10	10	390
Sulphate, SO4 1:5 soil:water	mg/kg	<10	<10	10	58

Method ID	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	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. For soil results:- 1. 'TEQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'TEQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'TEQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	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	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25oC in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Alternatively determined by colourimetry/turbidity using Discrete Analyer.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			08/10/2016	154722-1	08/10/2016 || 08/10/2016	LCS-6	08/10/2016
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	154722-1	<25 || <25	LCS-6	90%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	154722-1	<25 || <25	LCS-6	90%
Benzene	mg/kg	0.2	Org-016	<0.2	154722-1	<0.2 || <0.2	LCS-6	78%
Toluene	mg/kg	0.5	Org-016	<0.5	154722-1	<0.5 || <0.5	LCS-6	88%
Ethylbenzene	mg/kg	1	Org-016	<1	154722-1	<1 || <1	LCS-6	93%
m+p-xylene	mg/kg	2	Org-016	<2	154722-1	<2 || <2	LCS-6	95%
o-Xylene	mg/kg	1	Org-016	<1	154722-1	<1 || <1	LCS-6	96%
naphthalene	mg/kg	1	Org-014	<1	154722-1	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	79	154722-1	75 || 80 || RPD: 6	LCS-6	80%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			07/10/2016	154722-1	07/10/2016 || 07/10/2016	LCS-6	07/10/2016
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	154722-1	<50 || <50	LCS-6	92%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	154722-1	<100 || <100	LCS-6	92%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	154722-1	150 || 100 || RPD: 40	LCS-6	82%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	154722-1	<50 || <50	LCS-6	92%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	154722-1	190 || 110 || RPD: 53	LCS-6	92%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	154722-1	110 || <100	LCS-6	82%
Surrogate o-Terphenyl	%		Org-003	74	154722-1	77 || 77 || RPD: 0	LCS-6	79%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Naphthalene	mg/kg	0.1	Org-012	<0.1	154722-1	0.1 || 0.1 || RPD: 0	LCS-6	103%
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	154722-1	0.4 || 0.2 || RPD: 67	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	154722-1	0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012	<0.1	154722-1	0.3 || 0.1 || RPD: 100	LCS-6	110%
Phenanthrene	mg/kg	0.1	Org-012	<0.1	154722-1	5.7 || 2.0 || RPD: 96	LCS-6	125%
Anthracene	mg/kg	0.1	Org-012	<0.1	154722-1	1.1 || 0.4 || RPD: 93	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	154722-1	12 || 5.8 || RPD: 70	LCS-6	113%
Pyrene	mg/kg	0.1	Org-012	<0.1	154722-1	11 || 5.6 || RPD: 65	LCS-6	113%
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	154722-1	3.7 || 1.7 || RPD: 74	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012	<0.1	154722-1	3.8 || 1.9 || RPD: 67	[NR]	[NR]
Benzo(b,j +k)fluoranthene	mg/kg	0.2	Org-012	<0.2	154722-1	7.8 || 4.1 || RPD: 62	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	154722-1	5.8 || 3.2 || RPD: 58	LCS-6	115%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	154722-1	4.8 || 2.7 || RPD: 56	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	154722-1	0.7 || 0.3 || RPD: 80	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	154722-1	5.4 || 3.2 || RPD: 51	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012	101	154722-1	91 || 94 || RPD: 3	LCS-6	120%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			08/10/2016	154722-1	08/10/2016 || 08/10/2016	LCS-6	08/10/2016
HCB	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	120%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	97%
Heptachlor	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	102%
delta-BHC	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	97%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	98%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	96%
Dieldrin	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	100%
Endrin	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	105%
pp-DDD	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	98%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	LCS-6	111%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	94	154722-1	96 || 99 || RPD: 3	LCS-6	113%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			08/10/2016	154722-1	08/10/2016 || 08/10/2016	LCS-6	08/10/2016
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	106%
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Diazinon	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	99%
Dimethoate	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	105%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	107%
Malathion	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	92%
Parathion	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	117%
Ronnel	mg/kg	0.1	Org-008	<0.1	154722-1	<0.1 || <0.1	LCS-6	103%
Surrogate TCMX	%		Org-008	94	154722-1	96 || 99 || RPD: 3	LCS-6	94%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			08/10/2016	154722-1	08/10/2016 || 08/10/2016	LCS-6	08/10/2016
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	LCS-6	102%
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	154722-1	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	94	154722-1	96 || 99 || RPD: 3	LCS-6	94%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-6	06/10/2016
Date analysed	-			07/10/2016	154722-1	07/10/2016 || 07/10/2016	LCS-6	07/10/2016
Arsenic	mg/kg	4	Metals-020	<4	154722-1	<4 || <4	LCS-6	104%
Cadmium	mg/kg	0.4	Metals-020	<0.4	154722-1	<0.4 || <0.4	LCS-6	103%
Chromium	mg/kg	1	Metals-020	<1	154722-1	11 || 8 || RPD: 32	LCS-6	102%
Copper	mg/kg	1	Metals-020	<1	154722-1	12 || 9 || RPD: 29	LCS-6	105%
Lead	mg/kg	1	Metals-020	<1	154722-1	44 || 38 || RPD: 15	LCS-6	99%
Mercury	mg/kg	0.1	Metals-021	<0.1	154722-1	<0.1 || <0.1	LCS-6	104%
Nickel	mg/kg	1	Metals-020	<1	154722-1	10 || 7 || RPD: 35	LCS-6	98%
Zinc	mg/kg	1	Metals-020	<1	154722-1	44 || 39 || RPD: 12	LCS-6	98%

QUALITY CONTROL Misc Soil - Inorg	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-1	06/10/2016
Date analysed	-			06/10/2016	154722-1	06/10/2016 || 06/10/2016	LCS-1	06/10/2016
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	154722-1	<5 || <5	LCS-1	105%

QUALITY CONTROL Misc Inorg - Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			07/10/2016	[NT]	[NT]	LCS-6	07/10/2016
Date analysed	-			07/10/2016	[NT]	[NT]	LCS-6	07/10/2016
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	[NT]	[NT]	LCS-6	101%
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	[NT]	[NT]	LCS-6	105%
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081	<10	[NT]	[NT]	LCS-6	95%
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081	<10	[NT]	[NT]	LCS-6	96%

QUALITY CONTROL Misc Soil - Inorg	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	154722-2	06/10/2016
Date analysed	-	[NT]	[NT]	154722-2	06/10/2016
Total Phenolics (as Phenol)	mg/kg	[NT]	[NT]	154722-2	94%

QUALITY CONTROL Misc Inorg - Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	154722-4	07/10/2016 || 07/10/2016
Date analysed	-	154722-4	07/10/2016 || 07/10/2016
pH 1:5 soil:water	pH Units	154722-4	6.8 || 6.7 || RPD: 1
Electrical Conductivity 1:5 soil:water	µS/cm	154722-4	25 || 29 || RPD: 15

QUALITY CONTROL Misc Inorg - Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Chloride, Cl 1:5 soil:water	mg/kg	154722-4	<10 || 20
Sulphate, SO4 1:5 soil:water	mg/kg	154722-4	<10 || <10

QUALITY CONTROL Misc Inorg - Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	154722-5	07/10/2016
Date analysed	-	[NT]	[NT]	154722-5	07/10/2016
pH 1:5 soil:water	pH Units	[NT]	[NT]	[NR]	[NR]
Electrical Conductivity 1:5 soil:water	µS/cm	[NT]	[NT]	[NR]	[NR]
Chloride, Cl 1:5 soil:water	mg/kg	[NT]	[NT]	154722-5	84%
Sulphate, SO4 1:5 soil:water	mg/kg	[NT]	[NT]	154722-5	90%

Report Comments:

PAH_S:
The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 154722-1 to 5 were sub-sampled from jars provided by the client.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield
Asbestos ID was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test
NR: 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 (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics 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.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Pty Ltd
Attention	Peter Oitmaa

Sample Login Details	
Your Reference	85644.00, Richmond
Envirolab Reference	**154722**
Date Sample Received	05/10/2016
Date Instructions Received	05/10/2016
Date Results Expected to be Reported	**12/10/2016**

Sample Condition	
Samples received in appropriate condition for analysis	YES
No. of Samples Provided	7 Soils
Turnaround Time Requested	Standard
Temperature on receipt (°C)	10.8
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments
Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	Phone: 02 9910 6200
Fax: 02 9910 6201	Fax: 02 9910 6201
Email: ahie@envirolabservices.com.au	Email: jhurst@envirolabservices.com.au

Sample and Testing Details on following page

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

Sample Id	*vTRH(C6-C10)/BTEXN in Soil*	*svTRH (C10-C40) in Soil*	*PAHs in Soil*	*Organochlorine Pesticides in soil*	*Organophosphorus Pesticides*	*PCBs in Soil*	*Acid Extractable metals in soil*	*Total Phenolics (as Phenol)*	*Asbestos ID - soils*	*Chloride, Cl 1:5 soil:water*	*Electrical Conductivity 1:5 soil:water*	*pH 1:5 soil:water*	*Sulphate, SO4 1:5 soil:water*
BH6-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓				
BH6-1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓				
BH3-0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓				
BH5-0.5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BH9-0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BH7-2.5-2.95										✓	✓	✓	✓
BH3-7.0-7.45										✓	✓	✓	✓

Douglas Partners
Geotechnics · Environment · Groundwater

CHAIN OF CUSTODY

Project Name: Richmond
Project No: 85644.00 Sampler: DH
Project Mgr: Peter Oitmaa Mob. Phone: 0412 574 518
Email: peter.oitmaa@douglaspartners.com.au
Date Required: Std. Lab Quote No.

To: Envirolab Services
12 Ashley Street, Chatswood NSW 2067
Attn: Tania Notaras
Phone: 02 9910 6200 Fax: 02 9910 6201
Email: tnotaras@envirolabservices.com.au

Sample ID	Sample Depth	Lab ID	Sampling Date	Sample Type S - soil W – water	Container type	Analytes: Combo 8a	pH EC	Cl SO_4						Notes
BH6	0.5	1	27/9	S	Jar									
BH6	1.0	2	"	"	"									
BH3	0.2	3	"	"	"									
BH5	0.5	4	28/9	"	"									
BH9	0.1	5	27/9	"	"									
BH7	2.5-2.95	6	"	"	"									
BH3	7-7.45	7	"	"	"									

ENVIROLAB Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200
Job No: 154722
Date Received: 5/10/2016
Time Received: 13:00
Received by: PL
Temp: Cool/Ambient 10.8
Cooling: Ice/Gelpacks
Security: Intact/Broken/None

Lab Report No.
Send Results to: Douglas Partners Address: 96 Hermitage Road, West Ryde 2114
Phone: (02) 9809 0666
Fax: (02) 9809 4095 13:00

Relinquished by:	Signed:	Date & Time:	Received By:	Date & Time:
PMO	PMO	5/10 1000hrs	P.Ray/ELS	5/10/2016
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Appendix H

QA/QC Information

Quality Assurance/Quality Control Procedures and Results

Field QA/QC for Soil Samples

The field QA/QC procedures for sampling described in the Douglas Partners *Field Procedures Manual* were followed at all times during the field work.

Laboratory-prepared Trip Blank and Trip Spike soil samples were taken to site during the field work, stored in the same container used to store the field samples, and transported to the laboratory with the field samples selected for analysis. The purpose of the Trip Blank was to determine whether cross-contamination of the samples was likely to have occurred. The purpose of the Trip Spike was to determine whether the significant loss of volatile contaminants may have occurred.

The results for the Trip Blank and Trip Spike soil samples are provided in Table H1.

Table H1: Trip Blank and Trip Spike QA/QC Results for Hydrocarbons in Soils

Sample ID	Total Concentration (mg/kg) or % Recovery			
	Benzene	Toluene	Ethyl-benzene	Xylene
TB	<0.2	<0.5	<1	<3
TS	115%	119%	115%	117%

The concentrations of analytes in the Trip Blank were below the laboratory detection limits which indicates that cross-contamination is unlikely to have occurred. The recovery rates for the Trip Spike analytes were within an acceptable range which indicates that the significant loss of volatile contaminants is unlikely to have occurred. The field sampling protocols are therefore considered appropriate.

Intra-Laboratory QA/QC Analysis on Soil Samples

Intra-laboratory analysis of soil samples was conducted as an internal check of the reproducibility of the results from the primary laboratory and as a measure of consistency of sampling techniques. The 'A' series of the triplicate QA/QC samples were analysed by the primary laboratory (Envirolab). The results were compared between the primary and 'A' samples to determine the relative percentage difference (RPD) between the samples. The RPD was then used to determine whether unacceptable errors may be present in the sample data.

Selected comparative results of the analysis of the intra-laboratory soil samples are summarised in Tables H2 to H4.

Table H2: Intra-Laboratory QA/QC Results for BTEX in Soil

Sample ID	Total Concentration (mg/kg)				
	Benzene	Toluene	Ethylbenzene	m + p xylene	o xylene
C76/0.4-0.5	<0.2	<0.5	<1	<2	<1
BD2	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
C95/0-0.1	<0.2	<0.5	<1	<2	<1
BD3	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
C56/0-0.1	<0.2	<0.5	<1	<2	<1
BD5	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
C12/0-0.1	<0.2	<0.5	<1	<2	<1
BD23	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
C5/0-0.1	<0.2	<0.5	<1	<2	<1
BD25	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
C4/0.4-0.5	<0.2	<0.5	<1	<2	<1
BD26	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%
C19/0.4-0.5	<0.2	<0.5	<1	<2	<1
BD17	<0.2	<0.5	<1	<2	<1
RPD	0%	0%	0%	0%	0%

Table H3: Intra-Laboratory QA/QC Results for TRH in Soil

Sample ID	Total Concentration (mg/kg)			
	$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$
C76/0.4-0.5	<25	<50	<100	<100
BD2	<25	<50	<100	<100
RPD	0%	0%	0%	0%
C95/0-0.1	<25	<50	<100	<100
BD3	<25	<50	<100	<100
RPD	0%	0%	0%	0%
C56/0-0.1	<25	<50	<100	<100
BD5	<25	<50	<100	<100
RPD	0%	0%	0%	0%
C12/0-0.1	<25	<50	<100	<100
BD23	<25	<50	<100	<100
RPD	0%	0%	0%	0%
C5/0-0.1	<25	<50	<100	<100
BD25	<25	<50	<100	<100
RPD	0%	0%	0%	0%
C4/0.4-0.5	<25	<50	<100	<100
BD26	<25	<50	<100	<100
RPD	0%	0%	0%	0%
C19/0.4-0.5	<25	<50	<100	<100
BD17	<25	<50	<100	<100
RPD	0%	0%	0%	0%

Table H4: Intra-Laboratory QA/QC Results for Heavy Metals in Soil

Sample ID	Total Concentration (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
C76/0.4-0.5	<4	<0.4	3	<1	2	<0.1	1	2
BD2	<4	<0.4	4	<1	3	<0.1	1	<1
RPD	0%	0%	29%	0%	40%	0%	0%	67%
C95/0-0.1	<4	<0.4	2	<1	4	<0.1	<1	3
BD3	<4	<0.4	2	<1	4	<0.1	<1	7
RPD	0%	0%	0%	0%	0%	0%	0%	80%
C56/0-0.1	<4	<0.4	3	1	13	<0.1	2	12
BD5	<4	<0.4	3	3	13	1.4	5	12
RPD	0%	0%	0%	100%	0%	173%	86%	0%
C12/0-0.1	<4	<0.4	3	3	19	<0.1	1	7
BD23	<4	<0.4	3	4	19	<0.1	<1	6
RPD	0%	0%	0%	29%	0%	0%	0%	15%
C5/0-0.1	<4	<0.4	2	<1	4	<0.1	<1	2
BD25	<4	<0.4	6	<1	3	<0.1	<1	2
RPD	0%	0%	100%	0%	29%	0%	0%	0%
C4/0.4-0.5	<4	<0.4	3	<1	2	<0.1	<1	<1
BD26	<4	<0.4	4	<1	2	<0.1	<1	<1
RPD	0%	0%	29%	0%	0%	0%	0%	0%
C19/0.4-0.5	<4	<0.4	3	<1	2	<0.1	4	2
BD17	<4	<0.4	3	<1	2	<0.1	5	2
RPD	0%	0%	0%	0%	0%	0%	22%	0%

Notes: As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead, Hg = Mercury; Ni = Nickel; Zn = Zinc

A RPD of ± 30% is generally considered acceptable for inorganic analytes and a wider range may be acceptable for organic analytes. The RPD values outside the generally acceptable range of ± 30% are indicated by yellow shading in Table H4. These values are not considered significant due to the relatively small actual differences between the sample pairs and, in the case of filling, the heterogeneous nature of the samples.

It is therefore considered that the results indicate acceptable consistency between the primary and 'A' soil samples, that suitable field sampling methodology was adopted and that adequate laboratory precision was achieved.

Inter-Laboratory QA/QC Analysis on Soil Samples

Inter-laboratory analysis of soil samples was conducted as an internal check of the reproducibility of the results from the laboratories and as a measure of consistency of sampling techniques. The 'B' series of the triplicate QA/QC samples were analysed by the secondary laboratory (Eurofins). The results were compared between the primary and 'B' samples to determine the relative percentage difference (RPD) between the samples. The RPD was then used to determine whether unacceptable errors may be present in the sample data.

Selected comparative results of the analysis of the inter-laboratory soil samples are summarised in Tables H5 to H7.

Table H5: Inter-Laboratory QA/QC Results for BTEX in Soil

Sample ID	Total Concentration (mg/kg)				
	Benzene	Toluene	Ethylbenzene	m + p xylene	o xylene
C76/0.4-0.5	<0.2	<0.5	<1	<2	<1
BT2	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%
C95/0-0.1	<0.2	<0.5	<1	<2	<1
BT3	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%
C56/0-0.1	<0.2	<0.5	<1	<2	<1
BT5	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%
C12/0-0.1	<0.2	<0.5	<1	<2	<1
BT23	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%
C5/0-0.1	<0.2	<0.5	<1	<2	<1
BT25	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%
C4/0.4-0.5	<0.2	<0.5	<1	<2	<1
BT26	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%
C19/0.4-0.5	<0.2	<0.5	<1	<2	<1
BT17	<0.1	<0.1	<0.1	<0.2	<0.1
RPD	0%	0%	0%	0%	0%

Table H6: Inter-Laboratory QA/QC Results for TRH in Soil

Sample ID	Total Concentration (mg/kg)			
	$C_6 - C_9$	$C_{10} - C_{14}$	$C_{15} - C_{28}$	$C_{29} - C_{36}$
C76/0.4-0.5	<25	<50	<100	<100
BT2	<20	<20	<50	<50
RPD	0%	0%	0%	0%
C95/0-0.1	<25	<50	<100	<100
BT3	<20	<20	<50	<50
RPD	0%	0%	0%	0%
C56/0-0.1	<25	<50	<100	<100
BT5	<20	<20	<50	<50
RPD	0%	0%	0%	0%
C12/0-0.1	<25	<50	<100	<100
BT23	<20	<20	<50	<50
RPD	0%	0%	0%	0%
C5/0-0.1	<25	<50	<100	<100
BT25	<20	<20	<50	<50
RPD	0%	0%	0%	0%
C4/0.4-0.5	<25	<50	<100	<100
BT26	<20	<20	<50	<50
RPD	0%	0%	0%	0%
C19/0.4-0.5	<25	<50	<100	<100
BT17	<20	<20	<50	<50
RPD	0%	0%	0%	0%

Table H7: Inter-Laboratory QA/QC Results for Heavy Metals in Soil

Sample ID	Total Concentration (mg/kg)							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
C76/0.4-0.5	<4	<0.4	3	<1	2	<0.1	1	2
BT2	2.5	<0.4	<5	<5	<5	<0.1	<5	<5
RPD	0%	0%	0%	0%	0%	0%	0%	0%
C95/0-0.1	<4	<0.4	2	<1	4	<0.1	<1	3
BT3	<2	<0.4	<5	<5	<5	<0.1	<5	<5
RPD	0%	0%	0%	0%	0%	0%	0%	0%
C56/0-0.1	<4	<0.4	3	1	13	<0.1	2	12
BT5	<2	<0.4	<5	<5	7.7	<0.1	<5	6.6
RPD	0%	0%	0%	0%	51%	0%	0%	58%
C12/0-0.1	<4	<0.4	3	3	19	<0.1	1	7
BT23	<2	<0.4	<5	<5	<5	<0.1	<5	<5
RPD	0%	0%	0%	0%	117%	0%	0%	33%
C5/0-0.1	<4	<0.4	2	<1	4	<0.1	<1	2
BT25	<2	<0.4	<5	<5	24	<0.1	<5	8.5
RPD	0%	0%	0%	0%	143%	0%	0%	124%
C4/0.4-0.5	<4	<0.4	3	<1	2	<0.1	<1	<1
BT26	<2	<0.4	<5	<5	<5	<0.1	6.8	<5
RPD	0%	0%	0%	0%	0%	0%	149%	0%
C19/0.4-0.5	<4	<0.4	3	<1	2	<0.1	4	2
BT17	<2	<0.4	<5	<5	<5	<0.1	<5	<5
RPD	0%	0%	0%	0%	0%	0%	0%	0%

Notes: As = Arsenic; Cd = Cadmium; Cr = Chromium; Cu = Copper; Pb = Lead, Hg = Mercury; Ni = Nickel; Zn = Zinc

A RPD of ± 30% is generally considered acceptable for inorganic analytes and a wider range may be acceptable for organic analytes. The RPD values outside the generally acceptable range of ± 30% are indicated by yellow shading in Table H7. These values are not considered significant due to the relatively small actual differences between the sample pairs and, in the case of filling, the heterogeneous nature of the samples.

It is therefore considered that the results indicate acceptable consistency between the primary and 'B' soil samples, that suitable field sampling methodology was adopted and that adequate laboratory precision was achieved.

Laboratory QA/QC Procedures

Quality control procedures used during the analyses include:

Reagent Blank

A reagent blank sample is prepared and analysed at the beginning of every analytical run, following calibration of the analytical apparatus. The laboratory results for reagent blanks indicated that concentrations of all analytes were below respective laboratory practical quantitation limits.

Duplicate

This is the complete duplicate of a sample from the process batch. The results of the two samples are compared to laboratory acceptance criteria and exceedences highlighted. Exceedances were detected for Cu, Pb and Zn, and therefore a triplicate result was reported as per laboratory guidelines.

Matrix Spike

A portion of a 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 determine whether matrix interference exists. The matrix spike recovery is compared to laboratory acceptance criteria. No exceedences were noted.

Laboratory Control Sample

This is a standard reference sample or control matrix used to check the analytical process. The results were within acceptable limits.

Surrogate Spike

Surrogates are known additions of known compounds to each sample, blank, matrix spike and laboratory control sample. The surrogates are similar to the analyte of interest, however are not expected to be detected in real samples. The results were acceptable.