Remediation Action Plan

327 – 335 Burley Road
Horsley Park
NSW 2175

Prepared for:

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December 2014

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Executive Summary

DLA Environmental Services Pty Ltd (DLA) was commissioned by CSR Australia to prepare a Remediation Action Plan (RAP) for the property identified as:

Lot 1 in DP 106143, 327 – 335 Burley Road, Horsley Park NSW (the Site).

A RAP has been prepared to address contamination identified during previous environmental investigations at the Site, in particular:

- Contamination associated with known Underground Storage Tank (UST) locations;
- Potential contamination associated with USTs in presently unknown locations;
- Minor hydrocarbon contamination from on-site Above ground Storage Tanks (ASTs);
- Previously identified Benzo-a-Pyrene (BaP) TEQ contamination hotspots;
- Contamination from former oil storage areas and associated service lines;
- Potentially asbestos containing materials used in on-site bunds;
- Surface water contamination in on-site dams; and
- Sediment contamination in on-site dams.

The RAP has also been developed in consideration of the potential for unidentified contamination existing on-site due to historical and industrial land uses.

This purpose of this report is to set remediation goals and document the management procedures and environmental safeguards to be implemented to ensure the Site will be rendered suitable for the proposed land use and will pose no unacceptable risk to the human health or the environment generally.

Based on the previous investigations and DLA's observations during Phase 2 works, the areas of environmental concern for the Site are:

- The two missing USTs and tank pits at the northern side of the factory;
- The presence of a BaP TEQ and PAH concentration hotspot in TP3 at a depth of 0.5m;
- Aged oil observed on the eastern side of factory at BH51 in former oil storage area;

- The hydrocarbon contamination located on the western side of factory (with possible UST) in the location of BH24 and BH25, including the potential of hydrocarbon contamination of groundwater in the vicinity;
- The presence of the AST and minor elevated hydrocarbon concentrations within one sample at a depth of 0.3m;
- The presence of large bunds around the site with potential for ACM to be present, (this would be dealt with as an unexpected find as no ACM was observed or located during investigation);
- The pH of Dam surface water is outside of the criteria range;
- The heavy metals within water of Dams 1-5; and,
- Sediments within the dams investigated following dewatering of dams.

Given the long history of the site as a highly disturbed area with changes to the topography and landform through the use of imported materials, and the variety of stored petroleum products on-site, DLA Environmental Services Pty Ltd is of the opinion that it is possible that not all site contamination has been identified and/or delineated during previous investigations. Remediation of the Site will be undertaken in a precautionary manner including classification and tracking to isolate any potential areas of unidentified contamination persisting on-site which were not encountered during previous investigations. This includes, but is not limited to, the processes outlined in the response to the request for additional information under Section 6e of the Statement of Facts and Contentions on 9 October 2014 (DL3233_S002187).

The Site strategy selected must be the most cost-effective solution, which does not bring about unacceptable long-term liabilities, and which does not impose unreasonable constraints on future Site developments or present operations. The strategy must also be capable of achieving the technical, environmental and economic objectives outlined in this report.

Based on the analysis undertaken in previous sections, the preferred method is:

Excavate, Classify, Reuse and Dispose

This method has been formulated on the basis of the **Excavate and Off-Site Disposal** Strategy. The strategy has been supplemented with an option for **Reuse** of excavated materials if land use suitability has been demonstrated. This formulation has been developed due to the potential designation of material reuse areas on-site where basement excavation is not proposed and over-excavation of VENM can occur. The steps of excavation, classification, reuse and disposal will be contingent upon contaminant type. This combination of remedial methods is considered

to offer a more cost-effective outcome, whilst at the same time ensuring end land-use suitability with no ongoing liability following remediation.

At the completion of the management and clean-up works, a Validation Report documenting the works as completed will be prepared. The Validation Report will describe the strategic works undertaken at the Site, assess the result of the validation testing, demonstrate that the objectives of this RAP have been achieved and provide justifications for any deviation, statistically confirm that the managed site complies with the Validation Criteria and include any other information as deemed appropriate.

Validation activities will be required for the following areas:

- Validation of hotspot areas;
- Validation of UST removal; and
- Validation of any potential unidentified contamination source areas.

The Site can be made suitable for the intended land-use through remedial action as part of the redevelopment works in accordance with *State Environmental Planning Policy No.55 Managing Land Contamination: Planning Guidelines SEPP 55*.

In conclusion this RAP:

- Has been developed in a manner consistent with current industry practice;
- Has selected a preferred remediation strategy based on the site-specific issues and currently available technologies;
- Has presented an outline of the Site Environmental Management Plan (SEMP) and associated health and safety and remediation management plans to ensure human health and the environment are appropriately protected during the proposed works (**Appendix B**);
- Has presented an information and consultation program to ensure the stakeholders are informed of the works as they proceed (**Appendix B**); and,
- Has outlined the means of validation for the completed works.

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1.0 INTRODUCTION

1.1 General

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- Potentially asbestos containing materials used in on-site bunds;
- Surface water contamination in on-site dams; and
- Sediment contamination in on-site dams.

The RAP has also been developed in consideration of the request for further information under Section 6e of the *Statement of Facts and Contentions* following proceeding in the NSW Land and Environment court.

1.2 Objectives

This purpose of this report is to set remediation goals and document the management procedures and environmental safeguards to be implemented to ensure the Site will be rendered suitable for the proposed land use and will pose no unacceptable risk to the human health or the environment generally.

In achieving this end, the report will provide:

- A brief summary of the history and environmental setting of the Site;
- A summary of the previous environmental investigations at the Site;
- A review of the currently available remediation options;

- Details of the preferred remediation strategy and an outline of the methodology for the implementation of the selected strategy;
- Document appropriate procedures for the handling and tracking of materials;
- Details of the adopted validation programme;
- A brief outline of environmental pollution control, community health and safety, and occupational health and safety measures that should be implemented during remedial works; and,
- An outline of regulatory approvals and licenses which may be required to adopt the preferred remedial strategy.

1.3 Remediation Guidelines

The RAP has been prepared with consideration to the following guidelines and legislation:

- National Environment Protection (Assessment of Site Contamination) Measure (NEPM) (NEPC, 1999 as amended 2013);
- Managing Land Contamination, Planning guidelines, SEPP 55: Remediation of Land (DUAP, 1998);
- Contamination Sites: Sampling Design Guidelines (EPA, 1995);
- Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011);
- Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (DEC, 2006);
- Australian and New Zealand Guidelines for Assessment and Management of Contaminated Sites (ANZECC, 1992);
- Code of Practice for the Safe Removal of Asbestos, 2nd Edition (NOHSC, 2005);
- Work Health and Safety Act 2011 and associated regulations;
- How to Safely Remove Asbestos: Code of Practice (WorkCover, 2011);
- Storage and Handling of Dangerous Goods Code of Practice 2005; and,
- Guidelines for Assessing Service Station Sites (1994).

SITE DETAILS

1.4 Site Identification

The Site identification details are summarised in **Table 1** below:

Table 1 – Site Identification Summary

ITEMS	DETAILS
Site Name	N/A
Address	Lot 1 in DP 106143, 327 – 335 Burley Road, Horsley Park NSW 2175.
Local Government Authority	Fairfield City Council
Site Zoning	*Zoned 1(b) Non-Urban Extractive Industries* (Fairfield City Council Local Environment Plan 2013).
Current Use (NEPM 2013 Table 1A(1)	Commercial / Industrial
Proposed Use (NEPM 2013 Table 1A(1)	Commercial / Industrial
Site Area (approx.)	72ha
Locality Map	Refer to **Figure 1 –** Site Location

1.5 Environmental Setting

1.5.1 Boundaries and Surrounding Land Use

The boundary and surrounding landscape features of the Site are summarised in **Table 2** below:

Table 2 – Boundaries and Surrounding Land Use

DIRECTION	DETAILS
North	Industrial Commercial Precinct
East and South East	Residential and Rural Residential properties
South	Rural Properties
West	Rural Property in Penrith City Council Area

1.5.2 Topography

The Site topography comprises hills that slope gently to the south and south-west (in the western half of the site) and to the south and south east (in the eastern half of the site). These slopes fall from an east-west trending ridge that lies to the north of the site.

1.5.3 Hydrology and Hydrogeology

The hydrology and hydrogeology of the Site are provided in **Table 3** below:

Table 3 – Site Hydrology and Hydrogeology

ITEM	DETAILS
Hydrology	Surface runoff is follows the local topography except where artificial on-site dams and bunds intercept natural flow paths. Where surface water leaves site the nearest receptor in line with the on-site topography is Ropes Creek to the west and Reedy Creek to the east. Both creeks are tributaries of larger creeks which eventually flow to the Hawkesbury River approximately 12 km to the north.
Hydrogeology	Regional groundwater flow is expected to be consistent with the on-site topography, that is, south to southwest for the western half of the site and south to south-east for the eastern portion of the site, towards the two nearest surface water receptors. A search of the NSW Natural Resources Atlas identified 1 groundwater bore within a 1 km radius of the Site. Information obtained from the works reports obtained during the bore search indicated that the bore was registered for domestic stock purposes. The final depth of the bore was 25 metres with standing water level reported as 3.6 metres below ground surface level.

1.5.4 Site Geology and Soils

The 1:100,000 Soil Landscape Sheet for Penrith (9030, 1989) shows the landform to comprise the Blacktown Unit with gently undulating rises on Wianamatta Group bedrock with slopes usually <5% and broad round hill crests.

The Blacktown Unit is described as a 'Residual Landscape'. The soils of this unit comprise hard setting, mottled texture contrast soils, including shallow (<1.5m) red and brown podsols on the crests, grading to deeper (>2m) yellow podsols on the lower slopes and near drainage lines. This unit is associated with known salinity and dispersive hazard, particularly in lower slopes and streamlines where soils have the potential to become waterlogged.

Previous investigations have indicated that the site is covered by a thin layer of topsoil over residual clay soils, which are in turn underlain by weathered sandstone, shale and siltstone bedrock encountered at depths ranging from 0.9 to 5.2 metres.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS

Previous environmental investigations carried out at the Site are listed and described below:

2.1 Phase 1 & 2 Environmental Site Investigations –327-335 Burley Road, Horsley Park NSW (DLA, June 2013 H0033 and September 2013 H0068)

Historical searches indicated that chemical USTs were located immediately to the west of the factory. In the location BH24 and BH25 olfactory and analytical evidence indicated contamination by hydrocarbons from surface to 4.0m. A UST which has not been located may still exist within this area, however investigation at BH26 approximately five metres to the south did not record any hydrocarbon odours or hydrocarbon concentrations within samples.

The area immediately to the east of the factory at location BH51 was a former oil storage area. During the Phase 2 investigation a visual encounter with old oil occurred and was sampled. More former supply lines are expected to be located under the concrete at a depth of 0.3 to 1.0m.

At TP3 located within the north-west corner of the former quarry an exceedance for BaP TEQ at a depth of 0.5m (58 mg/kg) was reported. No other samples or test pit within the local vicinity had concentrations of BaP TEQ indicating that this may be a contamination hotspot and not indicative of broader contamination.

At BH14 near the existing above ground diesel storage tank and septic tank an elevated concentration of hydrocarbons was reported, however the concentration was below the site accepted criteria for a sample collected at 0.3m.

The dangerous goods search indicated that there were two USTs near the former front gate with no record of both of them being removed (only one). The Phase 2 investigation could not locate the tanks or former tank pit areas (even if they had been backfilled).

The results concluded that concentrations of the following analytes were reported below the Laboratory limit of Reported and / or the adopted Soil Assessment Criteria for the samples submitted for analysis:

- Eight Heavy Metals as recommended by NSW EPA;
- Volatile Total Recoverable Hydrocarbons (vTRH);
- Monocyclic Aromatic Hydrocarbons (BTEX);
- Organochlorine Pesticides (OC);

- Organophosphorus Pesticides (OP); and
- Polychlorinated Biphenyls (PCBs).

Refer to, **Appendix A** – NATA Certified Analytical Data, and Refer to **Figures 2,3 and 4** – Sample Locations.

2.2 Environmental Site Assessment – 327 to 335 Burley Road, Horsley Park NSW (GHD, Sept 2009, ref: 21/18584/151190)

This report relates to the Camide Landfill which is not part of this proposal. The report also refers to a previous report by *Environmental Auditors of Australia* report from 2000 relating to removal of one UST at the north of factory.

2.3 Contamination Status

Based on the previous investigations and DLA's observations during investigation works, the areas of environmental concern for the Site are:

- The two missing USTs and tank pits at the northern side of the factory;
- The presence of a BaP TEQ and PAH concentration hotspot in TP3 at a depth of 0.5m;
- Aged oil observed on the eastern side of factory at BH51 in former oil storage area;
- The hydrocarbon contamination located on the western side of factory (with possible UST) in the location of BH24 and BH25, including the potential of hydrocarbon contamination of groundwater in the vicinity;
- The presence of the AST and minor elevated hydrocarbon concentrations within one sample at a depth of 0.3m;
- The presence of large bunds around the site with potential for ACM to be present, (this would be dealt with as an unexpected find as no ACM was observed or located during investigation);
- The pH of Dam surface water is outside of the criteria range;
- The heavy metals within water of Dams 1-5; and,
- Sediments within the dams investigated following dewatering of dams.

Given the long history of the site as a highly disturbed area with changes to the topography and landform through the use of imported materials, and the variety of stored petroleum products on-site, DLA Environmental Services Pty Ltd is of the opinion that it is possible that not all site contamination has been identified and/or delineated during previous

investigations. Remediation of the Site will be undertaken in a precautionary manner including classification and tracking to isolate any potential areas of unidentified contamination persisting on-site which were not encountered during previous investigations. This includes, but is not limited to, the processes outlined in the response to the request for additional information under Section 6e of the Statement of Facts and Contentions on 9 October 2014 (DL3233_S002187).

3.0 SELECTION OF PREFERRED REMEDIATION STRATEGY

3.1 Overview

The *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme* (Second Edition, DEC, 2006) outlines the hierarchical management of wastes as preferred by the EPA. This scheme adopts the *Australian and New Zealand Guidelines for Assessment and Management of Contaminated Sites* (ANZECC, 1992). The Site preferred order of options for management is:

- Excavate and Dispose; and
- Cap and Contain.

3.2 Technical Appraisal

Important considerations (from a technical perspective) in selecting and effectively implementing one of the available remediation strategies for the Site are provided below in **Table 4**.

Table 4 – Technical Considerations

Technical Considerations	Option 1 Capping & Containment	Option 2 Excavate and Off-Site Disposal
Human Health Risks	Low – contaminants do not generally constitute a significant risk when contained. Limited personal contact. The excavation is part of regular quarrying and involves minimal soil disturbance.	Low – excavation and direct off-site disposal will minimise personal contact.
Reliability	Sound – some potential may exist for contaminant break though if cap breached or not maintained properly. Design and management will ensure minimal access to cap surface is possible.	Excellent – system ensures the removal of all contaminated materials.
Regulatory Approvals	Satisfactory – whilst on-site containment is not the EPA's preferred option; it is often accepted as a feasible option.	Satisfactory – waste will satisfy the 2008 NSW DECC *Waste Classification Guidelines*. Compliance with Regulatory Authorities
Site Suitability	Poor – widespread excavations and on-site water storage dams.	Good – Site is accessible by road transport.
Disruption to Site Structures and Activities	Poor – operating site.	Moderate –. Remediation areas can be excavated and treated, but on-site plant movement will need to managed.
Ongoing Liabilities	Moderate – capping system needs to be maintained.	Minimal – all contaminated materials removed.
Contractor Experience	Moderate – contractors available with experience in the implementation of cap and contain systems.	Good – relatively simple strategy involving only basic technologies.
Availability of Disposal Sites	N/A.	Good – landfills available to accept waste.
Implementation Time Frame	Short to moderate.	Short.

Based on the analysis undertaken in **Table 4**, the following salient conclusions are made regarding the technical suitability of the various remediation options available for the Site:

- Excavation and off-site disposal is quick and offers no constraints on future land use;
- Capping and containment method has low health risks as it does not involve a substantial disturbance of the contaminated soils. The option is also a reliable technology and can be implemented on as short time frame; and
- The major disadvantages associated with capping and containment include maintenance requirements and notation that the Site is regarded as containing contamination and is titled accordingly.

Consideration must also be given to the EPA endorsed remediation hierarchy of the *Australian and New Zealand Guidelines for Assessment and Management of Contaminated Sites* (ANZECC, 1992), where excavation and disposal are preferable to capping and containment.

3.3 Economic Appraisal

DLA has performed a precursory cost-benefit analysis to assess the viability of the two most applicable remediation options for the Site – Excavation and Off-Site Disposal and Capping and Containment. A review of typical project component costs, in conjunction with wider considerations regarding long-term liabilities and potential impacts on property value, have concluded that the option of Excavation and Off-Site Disposal is expected to be the most appropriate strategy for the Site to achieve the stated remediation objectives.

3.4 Preferred Strategy

The Site strategy selected must be the most cost-effective solution, which does not bring about unacceptable long-term liabilities, and which does not impose unreasonable constraints on future Site developments or present operations. The strategy must also be capable of achieving the technical, environmental and economic objectives outlined in this report.

Based on the analysis undertaken in previous sections, the preferred method is:

Excavate, Classify, Reuse and Dispose

This method has been formulated on the basis of the **Excavate and Off-Site Disposal** Strategy. The strategy has been supplemented with an option for **Reuse** of excavated materials if land use suitability has been demonstrated. This formulation has been developed due to the

potential designation of material reuse areas on-site where basement excavation is not proposed and over-excavation of VENM can occur. The steps of excavation, classification, reuse and disposal will be contingent upon contaminant type. This combination of remedial methods is considered to offer a more cost-effective outcome, whilst at the same time ensuring end land-use suitability with no ongoing liability following remediation.

Refer to **Figure 4** – Potential Material Reuse Areas

4.0 IMPLEMENTATION OF THE SELECTED STRATEGY

The On-site Remediation strategy proposed incorporates the following elements:

1. Stakeholder consultation;
2. Implementation of an accepted Site Environmental Management Plan (SEMP);
3. Site Establishment and Pre-Remedial Works;
4. Remediation Works; and,
5. Validation Plan.

4.1 Stakeholder Consultation

On approval of the strategy, the Stakeholders including on-site Management and relevant regulatory bodies will be informed of the intentions and the progress at all stages of the management works.

4.2 Implementation of Environmental Management Plan

A SEMP covering the remedial works will be prepared for the Site. Before work commences it is imperative that all issues relating to potential impacts have been reviewed. The SEMP including Remediation Works Management and Health and Safety Plans have been included as **Appendix B**.

4.3 Site Establishment and Pre-Remedial Works

4.3.1 Site Establishment

Initial activities at the Site shall involve the establishment of all plant and equipment necessary for the remediation works. This shall include:

- Establishment of a Project Manager/Contractor's site office of temporary work sheds and amenities for Site workers;
- Establishment of a car parking area for Site workers and visitors to the Site; and
- Establish the Site Environmental Monitoring Program.

Prior to the commencement of any earthmoving activities, it will also be necessary to install environmental protection safeguards, as well as Site security measures. These measures are included as part of the SEMP contained in **Appendix B.**

4.3.2 Site Pre-Works

To facilitate the excavation of contamination, the following Site preparation is required in the first week:

- Demolition of all existing structures on-site.
- Removal of overlying hardstand.
- Construction of bunded and hardstand Designated Treatment Areas (DTAs) to preclude run-off onto the surrounding Sites:

4.4 Remediation Works

The remedial works envisioned at the Site and in the following staging order are:

4.4.1 Designation of Material Reuse Consolidation Areas

The RAP incorporates the **Reuse** of excavated materials if land use suitability has been demonstrated following excavation and classification. Prior to the performance of any remediation steps outlined below, the reuse consolidation areas will require designation:

1. Designation of proposed Potential Material Reuse Areas. It is understood that there are no preliminary restrictions on re-use areas on-site.
2. Excavation of soils within the marked areas to the depth of natural soils or where visual or olfactory contaminant indicators are no longer present.
3. Classification and disposal of excavated spoil in accordance with *Waste Classification Guidelines* (NSW DECCW, 2009).

4.4.2 Remediation of Identified BaP/PAH Contamination

Concentrations of BaP have been identified above the Site Acceptance Criteria in soil sample TP3 – 0.5 (53 mg/kg). For the purposes of this remediation strategy, the impacted soils within the vicinities of this borehole will be treated and remediated as a hotspot area. The main activities to be undertaken during the remediation of this soil will include:

1. Delineation of excavation areas by marking a 5m x 5m grid around borehole TP3.
2. Excavation of identified gridded areas to the required depth of 1.0m.
3. Excavated materials will be relocated and consolidated within a separate area.

4. These soils will be sampled for waste classification purposes in accordance with *Waste Classification Guidelines* (NSW DECCW, 2009) and any WorkCover requirements.
5. If waste characterisation results do not identify chemical contamination in exceedance of the Validation Criteria (refer to **Section 4.5.5**) to be present, the material may be deemed suitable for reuse on-site. These soils will be placed within designated material reuse areas.
6. If contaminants exist at concentrations unsuitable for the proposed land use, the material will be disposed of in accordance with the *Waste Classification Guidelines* (NSW DECCW, 2009).

4.4.3 Remediation of Identified USTs/ASTs

Previous investigations have revealed the presence of one UST on-site which is yet to be located. DLA Environmental Services Pty Ltd intend to use ground penetrating radar to locate any remaining USTs on-site. If located, the removal of the USTs will be undertaken by a suitably licensed contractor in accordance with *Storage and Handling of Dangerous Goods Code of Practice 2005* and Australian Standard *AS4976-2008: The removal and disposal of underground petroleum storage tanks*.

Hydrocarbon contamination potentially associated with a UST on the western side of the factory in the vicinity of BH24 and BH25, and with a currently operational diesel AST on-site, will be treated as a hotspot area and treated as per points 1 to 6 in section **4.4.2** above.

4.4.4 Remediation of groundwater hydrocarbon contamination

Previous investigations have identified that groundwater on-site may be contaminated with hydrocarbons from former and current USTs, in addition to the evidence that petroleum hydrocarbons were present in on-site monitoring wells.

A Groundwater Monitoring Program at the Site will be prepared and implemented in consultation with the Site Auditor. The requirement for further groundwater remediation will be discussed with the Site Auditor upon receipt of groundwater monitoring results.

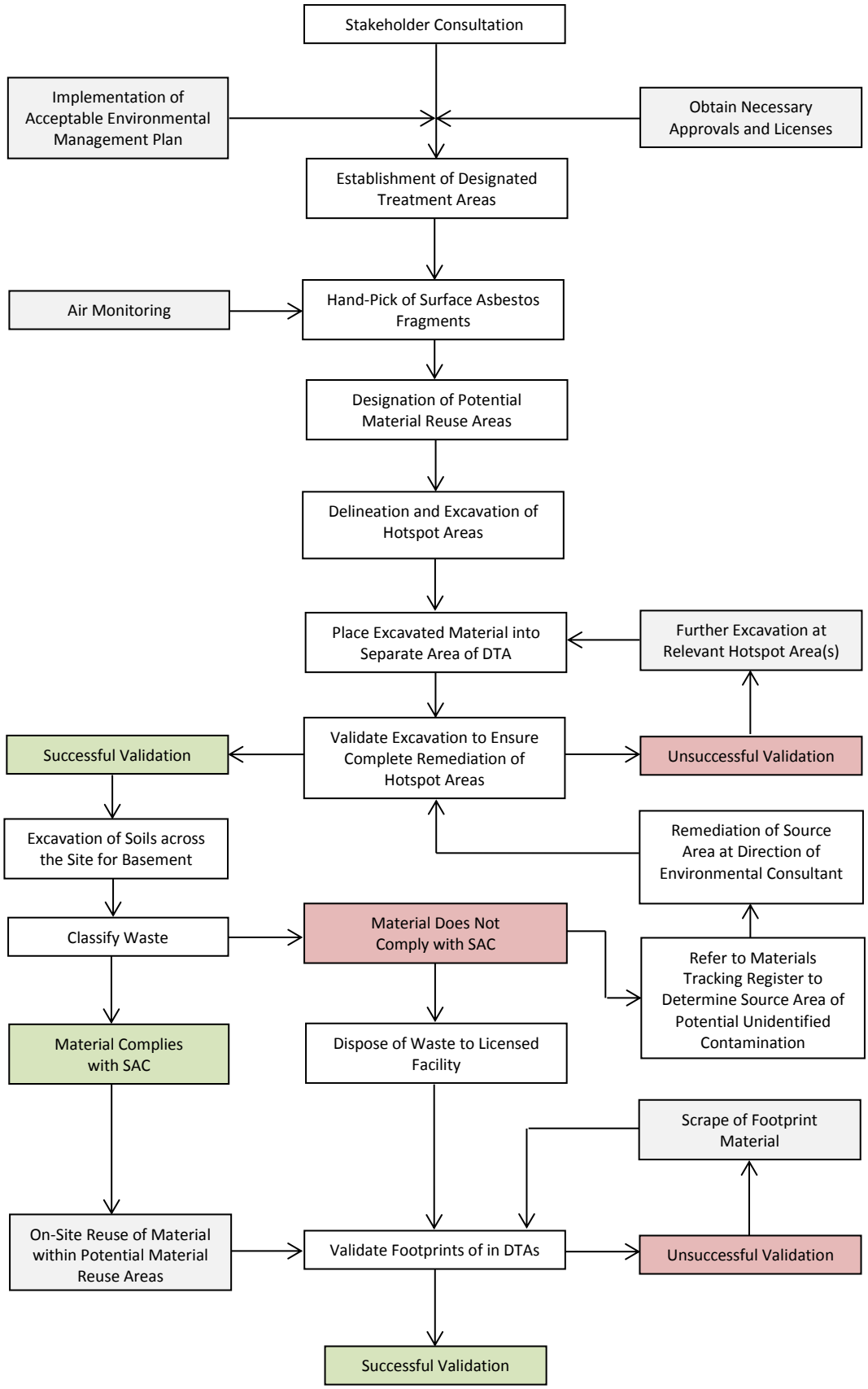
4.4.5 Remediation of Surface Water and Sediment Contamination

Contamination within on-site dams has been detected, however as no water is being discharged from the dams, with the water being transferred between the dams to reduce suspended sediments prior to re-use in the factory, the water is deemed suitable for re-use on-

site for dust suppression. As the water would not be discharged from the site, no further remediation action is considered necessary.

Sediments will be further analysed following dewatering or sufficient lowering of the dams with the results compared against the adopted site criteria.

A schematic of the **Remediation Process** is shown below:



4.5 Validation Plan

4.5.1 Extent of Validation

Validation activities will be required for the following areas:

- Validation of former oil storage area (east side of factory);
- Validation of former chemical storage area (west side of factory), and including validation of UST removal if identified;
- Validation of UST removal of two missing USTs (north of factory);
- Validation of Bap TEQ and PAH hot spot within the northwest of the former quarry at TP3;
- Validation of AST removal and surrounding area; and,
- Validation of any potential unidentified contamination source areas.

4.5.2 Validation Procedure

The Validation of the hotspot areas and USTs (if present) will be performed by way of visual inspection and soil sampling. Validation sample collection should include soil samples from the excavation walls and from the base of the excavation, to be analysed for the Contaminants of Concern. Sample numbers and analysis will be dependent on the area and a review of initial assessment data to conform to Australian Standards 4482.1 and 4482.2, EPA NSW Contaminated Sites*: Sampling Design Guidelines* (EPA, 1995) and *Guidelines for Assessing Service Station Sites* (EPA, 1994*.;*

Where excavations have been identified to contain potential unidentified contamination, validation will consist of soil sampling and visual inspection as above at the direction of the Environmental Consultant.

4.5.3 Validation Criteria

The investigation will be undertaken in consideration of the following documents:

- Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites (NSW OEH, 2011);
- Contaminated Sites: Guidelines for the NSW Site Auditor Scheme, 2nd Edition (NSW EPA, 2006);
- National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No.1) (NEPC, 2013);
- Contaminates Sites: Guidelines on Duty to Report Contamination under the Contamination Land Management Act 1997 (NSW DECC, 2009);
- Guidelines for the Assessment of On-Site Containment of Contaminated Soil (ANZECC, 1999);
- Australia and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC 2000;
- Australian Drinking Water Guidelines, National Water Quality Management Strategy 2011;
- Guidelines for Assessing Service Station Sites (EPA, 1994).

The Validation Criteria for the acceptable concentrations of contaminants at the Site have been derived from the *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No.1)* (NEPM 2013) Table 1A(1) Column Commercial Industrial. The criteria are provided in **Tables 7-11**.

Table 7 – Criteria for Soils (mg/kg)

Analytes	Commercial / Industrial [1]
Arsenic	3000
Cadmium	900
Chromium	3600
Copper	240000
Lead	1500
Mercury	730
Nickel	6000
Zinc	400000
BaP TEQ	40
Total PAHs	4000
PCB	7
Pesticides: **(Aldrin/Dieldrin)** **Chlordane** **DDT+DDE+DDD**	 45 530 3600
Asbestos: **Bonded ACM[2]** **FA[3] / AF[4]** **Surface Asbestos (0.1m)**	 0.05% 0.001% No Visible
Aesthetic: **Upper 1m of soil**	No Odours No Staining <5% Anthropogenic Material

1 – Criteria adopted for proposed Commercial/Industrial areas of the Site –NEPM 2013 Table 1A(1) and Table 7.

2 – Bonded ACM (bonded Asbestos) - asbestos-containing-material which is in sound condition and where the asbestos is bound in a matrix such as cement or resin (e.g. asbestos fencing and vinyl tiles). Bonded ACM refers to, in this instance, material that cannot pass a 7 mm x 7 mm sieve.

3 – Fibrous Asbestos - friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This material is in a degraded condition such that it can be broken or crumbled by hand pressure.

4 – Asbestos Fines - AF includes free fibres, small fibre bundles and also small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve.

Table 8 – Criteria for Total Recoverable Hydrocarbons (mg/kg)

Analytes	HSL-D[1] (Clay) 0-1.0m	HSL-D[2] (Clay) 1-<2.0m
Benzene	4	6
Toluene	NL	NL
Ethylbenzene	NL	NL
Xylenes	NL	NL
F1: C_6-C_{10}	310	480
F2: C_{10}-C_{16}	NL	NL
F3: C_{16}-C_{34}	N/A	N/A
F4: C_{34}-C_{40}	N/A	N/A

NL = Not Limiting (i.e. the soil vapour concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario).
N/A = Not applicable as F3 and F4 are non-volatile and hence are not of concern for vapour intrusion.
1 – NEPM 2013 Amendment *Table 1A(3) – Soil HSLs for vapour intrusion* – 0-1.0m
2 – NEPM 2013 Amendment *Table 1A(3) – Soil HSLs for vapour intrusion* – 1-<2.0m

Table 9 – Criteria for Total Recoverable Hydrocarbons (ESL and ML)

Analytes	Ecological Screening Limits[1] (Fine*)	Management Limits[2] (Fine*)
Benzene	95	--
Toluene	135	--
Ethylbenzene	185	--
Xylenes	95	--
Benzo(a)pyrene	0.7	--
F1: C_6-C_{10}	215	800
F2: C_{10}-C_{16}	170	1000
F3: C_{16}-C_{34}	2500	5000
F4: C_{34}-C_{40}	6600	10000

***** Fine refers to the soil texture grading as per NEPM 1999.
1 – NEPM 2013 Amendment *Table 1B(6)* – ESLs for TPH fractions, BTEX and benzo(a)pyrene in soil.
2 – NEPM 2013 Amendment Table 1B(7) – Management Limits for TPH fractions F1-F4 in soil

Table 10 – Criteria for Groundwater

Analytes	Service Station Guidelines	NEPM 2013 Fresh Water (µg/L)	NHMRC Drinking Water Guidelines 2011 (µg/L)
Benzene	300	700	1
Toluene	300	--	800
Ethylbenzene	80	80	300
M+P-Xylene	--	75	600
Total Xylene	380	--	
TRH: C10 - C40	600[1]	7[2]	ID
Arsenic (III)	--	24	--
Arsenic (V)	--	13	7
Cadmium	--	0.2	2
Chromium (III)	--	--	--
Chromium (VI)	--	1	50
Copper	--	1.4	2000
Lead	5	3.4	10
Mercury	--	0.6	1
Nickel	--	11	20
Zinc	--	8	3000[3]
PAH's	--	--	
Napthalene	--	16	
Anthracene	--	0.4*	ID
Phenanthrene	--	2*	
Fluoranthene	--	1.4*	
B(a)P	--	0.2*	0.01
PCB (Total)	--	1-0.001	0.05
Phenolics	--	320	ID

ID=Insufficient Data

* Low reliability trigger values are provided where possible as an indicative guideline only in the absence of a high reliability 95% value.

1 – The NSW EPA Guidelines for Assessing Service Station sites and the ANZECC water quality Guidelines do not provide any reference for TRH levels in groundwater. In the absence of accepted criteria, the Dutch Intervention guidelines have been referenced as a guide only. The Dutch guidelines do not provide criteria for the C6-C9 hydrocarbon fractions, but provide values for mineral oil hydrocarbons (C10-C36 chain). The Dutch Intervention guideline for mineral oil is 600µg/litre. This guideline is health based rather than ecosystem based.

2 – The ANZECC threshold criteria of 7µg/L is a low reliability trigger level for protection of aquatic ecosystems and is derived from a study on the effects of petroleum hydrocarbons on tropical marine organisms. This level has not been adopted as it is below the most sensitive detection level of the laboratory.

3 – The NHMRC drinking water guideline for Zinc is an aesthetic guideline based on taste rather than risk to human health.

4.5.4 Application of Criteria

Validation for chemically tested soils will be determined when concentrations are reported below the criteria, thereby not posing an unacceptable risk. For chemical analysis, the following statistical criteria shall be adopted with respect to the health-based criteria:

- The 95% Upper Confidence Limit (UCL) of the arithmetic mean for chemical contaminates does not exceed the Validation Criteria;
- The individual contaminant concentration should not exceed the Validation Criteria by more than 250%, and;
- The standard deviation of individual contaminants should not exceed 50% of the Validation Criteria.

4.5.5 Validation Report

At the completion of the management and clean-up works, a Validation Report documenting the works as completed will be prepared. The Validation Report will describe the strategic works undertaken at the Site, assess the result of the validation testing, demonstrate that the objectives of this RAP have been achieved and provide justifications for any deviation, statistically confirm that the managed site complies with the Validation Criteria and include any other information as deemed appropriate.

4.5.6 Quality Control

The Quality Assurance (QA) program for the Site will ensure the representativeness and integrity of samples and accuracy and reliability of the analysis results. This includes cleaning of tools before and between sampling, cleaning of containers and delivery of samples to the laboratory within holding times, and in good condition.

The Quality Control (QC) program for the Site will monitor and measure the effectiveness of the QA procedures. This will involve the use of field duplicates, inter and intra laboratory checks, trip blanks, rinsate checks, trip spikes, surrogate spikes, and the use of laboratory internal standards. Duplicate samples will be collected to verify the QA/QC of the soil samples collected at a frequency of 1/10 (10%) intra-laboratory, and 1/20 (5%) inter-laboratory. The samples will be transported in a chilled and security sealed portable cooler to a NATA registered laboratory and analysed for Contaminants of Concern.

4.6 Remediation Contingency

If there are events or discoveries made at the Site that would prevent the proposed works complying with the Validation Criteria, or if the selected management strategy is not able to proceed, then the following contingencies are devised and should be discussed with the Site Auditor prior to implementation:

Excavation does not effectively remove all buried / contaminated material

Option A Continue controlled excavation until validation is achieved.

Option B Reassessment of remedial options for excavated materials, including the feasibility of the Capping and Contain remedial strategy.

5.0 CONCLUSION

The Site can be made suitable for the intended land-use through remedial action as part of the redevelopment works in accordance with *State Environmental Planning Policy No.55 Managing Land Contamination: Planning Guidelines SEPP 55*.

In conclusion this RAP:

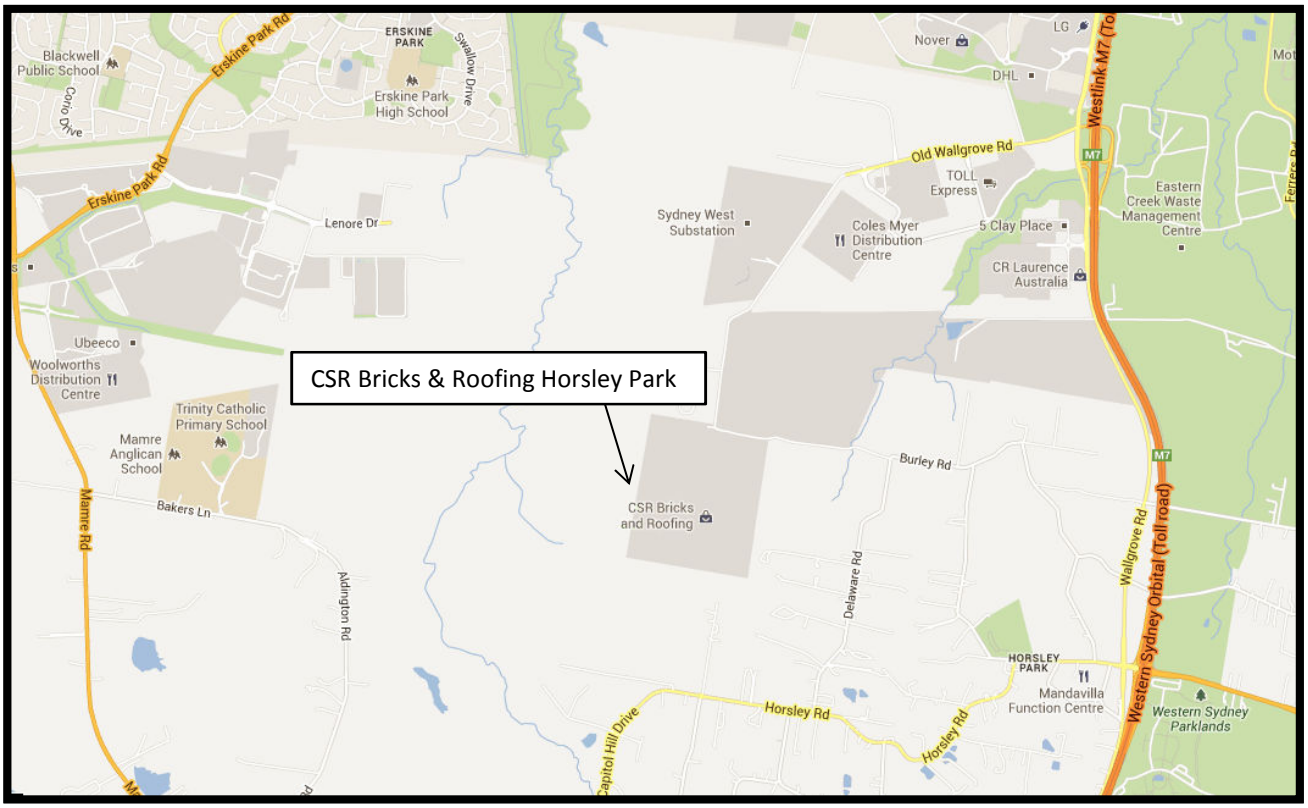
- Has been developed in a manner consistent with current industry practice;
- Has selected a preferred remediation strategy based on the site-specific issues and currently available technologies;
- Has presented an outline of the Site Environmental Management Plan (SEMP) and associated health and safety and remediation management plans to ensure human health and the environment are appropriately protected during the proposed works (**Appendix B**);
- Has presented an information and consultation program to ensure the stakeholders are informed of the works as they proceed (**Appendix B**); and,
- Has outlined the means of validation for the completed works.

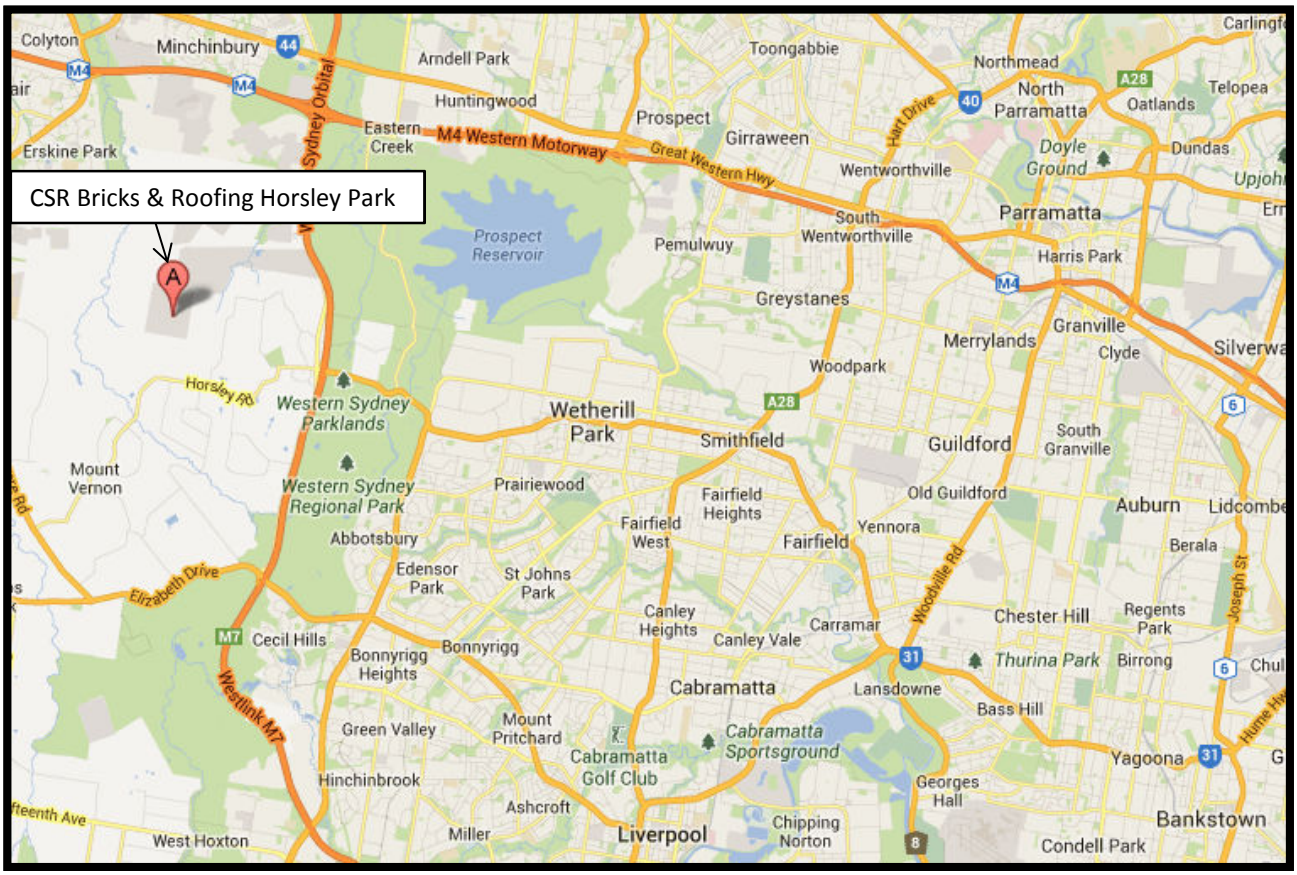
6.0 REFERENCES

- Australian and New Zealand Guidelines for the Management of Contaminated Sites, 1992, Australian and New Zealand Environment and Conservation Council and National Health and Medical Research Council (ANZECC/NHMRC 1992).
- Guidelines for the Assessment of On-Site Containment of Contaminated Soil (ANZECC, 1999);
- Australia and New Zealand Guidelines for Fresh and Marine Water Quality, ANZECC 2000;
- Australian Drinking Water Guidelines, National Water Quality Management Strategy 2011;
- National Environment Protection (Assessment of Site Contamination) Measure (NEPM) (NEPC, 1999 as amended 2013);
- Health - Based Soil Investigation Levels, 1998, Imray, P & Langley, A, National Environmental Health Forum Monographs, Soil Series No. 2 (2nd Ed), South Australian Health Commission (NEHF 1998b).
- Contaminated Sites: Assessing Service Station Sites, 1994, NSW Environment Protection Authority (NSW EPA 1994).
- Contaminated Sites: Sampling Design Guidelines 1995, NSW Environment Protection Authority (NSW EPA 1995).
- Contaminates Sites: Guidelines on Duty to Report Contamination under the Contamination Land Management Act 1997 (NSW DECC, 2009);
- Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites, 1998, NSW Environment Protection Authority (NSW EPA 1998).
- Contaminated Sites: Guidelines for the NSW Site Auditor Scheme, 2nd Edition, 2006,
- Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination (NSW DEC 2007).
- National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (NEPM).
- Contaminated Sites: Guidelines on Significant risk of Harm from Contaminated land and the Duty to Report, 1999, NSW Environment Protection Authority (NSW EPA 1999).
- Managing Land Contamination: Planning Guidelines, SEPP 55 - Remediation of Land (1998), Department of Urban Affairs and Planning/ NSW EPA.
- Contaminated Land Management Act (1997), NSW Government, Sydney, NSW.
- Waste Classification Guidelines, NSW DECCW 2009.
- Environmental Guidelines: Solid Waste Landfills (1996) NSW EPA.
- Managing Land Contamination, Planning guidelines, SEPP 55: Remediation of Land (DUAP, 1998);
- Code of Practice for the Safe Removal of Asbestos, 2nd Edition (NOHSC, 2005);

Figure 1

Site Location





DLA environmental

Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
2335
Tel: 02-94761765
Fax: 02-94761557

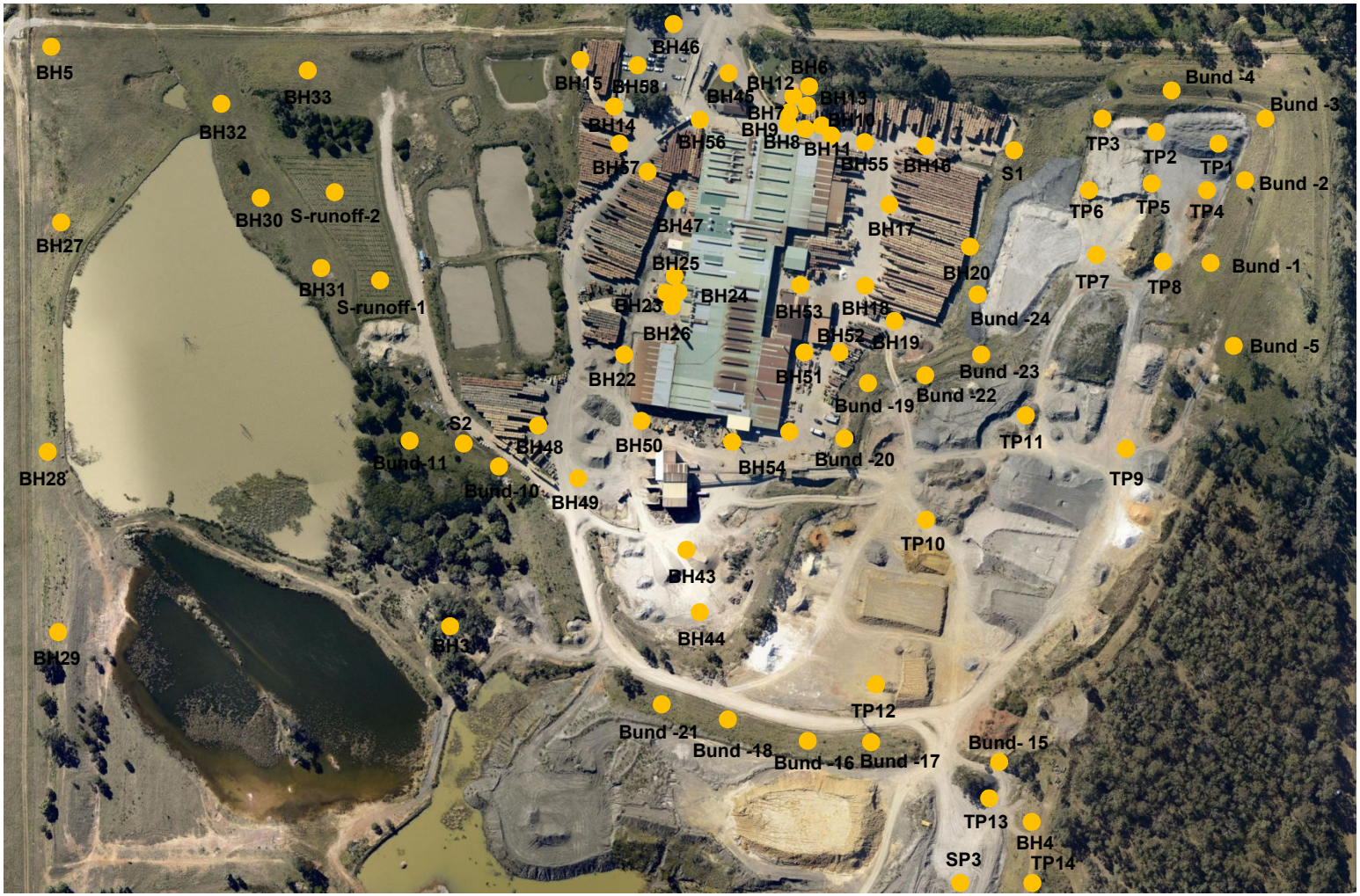
Maitland
42B Church Street
Maitland NSW

Tel: 02-49330001

Title: CSR Bricks & Roofing, 327-355 Burley Road Horsley Park NSW	
Figure: 1	Project no:: DLH1121
Date: 28/11/2014	Revision: 1

Figure 2

Sample Locations - North



LEGEND

Sample Location

DLA environmental

Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title: Sample Location- North- CSR Horsley Park. Burley Road, Horsley Park, NSW

Figure:	Project no::
2	DLH1121
Date:	Revision:
28.11.2014	0

Figure 3

Sample Locations- South

LEGEND

Sample Location

DLA environmental

Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title: Sample Locations–South- CSR- Horsley Park. Burley Road, Horsley Park, NSW

Figure:	Project no::
3	DLH1121
Date:	Revision:
28.11.2014	0

Figure 4

Water Sample Locations

LEGEND

● Sample Location

DLA environmental

Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title: Water Sample Locations– CSR Horsley Park. Burley Rd, Horsley Park, NSW

Figure:	Project no::
4	DLH1121
Date:	Revision:
28.11.2014	0

Figure 5

Areas of Environmental Concern

Legend

- Existing AST
- Missing UST & associated pits
- Hydrocarbon contamination area
- BaP & PAH hotspot @ 0.5 depth
- Former oil storage area

N

DLA environmental

Sydney Office
Phone (02) 9476 1765
Fax (02) 9476 1557

Maitland Office
Phone (02) 4933 0001

Title: Areas of environmental concern

Client	Project No.	Figure No	Date
CSR Australia	DLH 1121	5	28/11/2014
	Scale: As Shown	Compiled: AS	Revision: R00

Appendix A

NATA Certified Analytical Data

Appendix A

NATA Certified Analytical Data

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

CERTIFICATE OF ANALYSIS 97971

Client:
David Lane Associates (Maitland)
42B Church St
Maitland
NSW 2320

Attention: Malcolm Adrian

Sample log in details:

Your Reference:	**DLH1121 - Horsley Park**
No. of samples:	68 soils, 16 waters
Date samples received / completed instructions received	18/09/13, 20/09/13 20/09/2013

This report replaces ROO dated 01/10/13 due to the addition of depths in samples.

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:	1/10/13	/	8/10/13
Date of Preliminary Report:	Not issued		

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

Results Approved By:

Jacinta Hurst
Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97971-3	97971-11	97971-16	97971-23	97971-29
Your Reference	----------	Bund - 12	Bund - 16	Bund - 20	BH54	BH56
Depth	----------	-	-	-	0.5	2.5
Date Sampled		18/09/2013	18/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	118	131	109	112	123

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97971-31	97971-33	97971-34	97971-36	97971-37
Your Reference	----------	BH57	BH58	BH58	BH47	BH47
Depth	----------	2.0	1.0	3.0	0.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	125	111	110	116	104

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97971-38	97971-39	97971-41	97971-43	97971-44
Your Reference	----------	BH47	BH47	BH49 (48)	BH49	BH50
Depth	----------	2.5	3.5	0.5	0.5	0.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	115	130	128	120	130

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97971-46	97971-47	97971-48	97971-51	97971-53
Your Reference	----------	BH51	BH51	BH52	SP1-2	SP1-4
Depth	----------	0.5	1.4	0.5	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	126	119	115	130	121

vTRH(C6-C10)/BTEXN in Soil		
Our Reference:	UNITS	97971-60
Your Reference	----------	SP2-3
Depth	----------	-
Date Sampled		20/09/2013
Type of sample		Soil
Date extracted	-	25/09/2013
Date analysed	-	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	121

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97971-3	97971-11	97971-16	97971-23	97971-29
Your Reference	----------	Bund - 12	Bund - 16	Bund - 20	BH54	BH56
Depth	----------	-	-	-	0.5	2.5
Date Sampled		18/09/2013	18/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	92	93	95	108	92

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97971-31	97971-33	97971-34	97971-36	97971-37
Your Reference	----------	BH57	BH58	BH58	BH47	BH47
Depth	----------	2.0	1.0	3.0	0.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	160	<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	160	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	92	91	90	96	97

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97971-38	97971-39	97971-41	97971-43	97971-44
Your Reference	----------	BH47	BH47	BH49 (48)	BH49	BH50
Depth	----------	2.5	3.5	0.5	0.5	0.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	98	95	90	96	99

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97971-46	97971-47	97971-48	97971-51	97971-53
Your Reference	----------	BH51	BH51	BH52	SP1-2	SP1-4
Depth	----------	0.5	1.4	0.5	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	160	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	510	150	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	180	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	340	99	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	340	99	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	450	140	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	120	<100	<100	<100	<100
Surrogate o-Terphenyl	%	#	111	92	101	102

svTRH (C10-C40) in Soil		
Our Reference:	UNITS	97971-60
Your Reference	----------	SP2-3
Depth	----------	-
Date Sampled		20/09/2013
Type of sample		Soil
Date extracted	-	25/09/2013
Date analysed	-	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100
Surrogate o-Terphenyl	%	91

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- 	97971-1 Bund - 10 - 18/09/2013 Soil	97971-2 Bund - 10a - 18/09/2013 Soil	97971-3 Bund - 12 - 18/09/2013 Soil	97971-4 Bund - 12a - 18/09/2013 Soil	97971-5 Bund - 13 - 18/09/2013 Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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	0.2	<0.1	0.2	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.3	0.1	0.3	0.6
Pyrene	mg/kg	0.1	0.3	0.2	0.3	0.7
Benzo(a)anthracene	mg/kg	<0.1	0.1	<0.1	0.1	0.3
Chrysene	mg/kg	<0.1	0.2	0.1	0.1	0.3
Benzo(b+k)fluoranthene	mg/kg	<0.2	0.3	<0.2	0.2	0.6
Benzo(a)pyrene	mg/kg	0.07	0.22	0.11	0.14	0.38
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.1	<0.1	<0.1	0.2
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	0.2	<0.1	<0.1	0.2
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.41	1.9	0.53	1.4	3.6
Surrogate p-Terphenyl-d14	%	99	97	97	95	99

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ----------	97971-6 Bund - 13a - 18/09/2013 Soil	97971-7 Bund - 14 - 18/09/2013 Soil	97971-8 Bund - 14a - 18/09/2013 Soil	97971-9 Bund - 15a - 18/09/2013 Soil	97971-10 Bund - 15 - 18/09/2013 Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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	0.3	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.9	0.2	0.2	<0.1	<0.1
Pyrene	mg/kg	0.9	0.2	0.2	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.5	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.5	0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	0.9	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.63	0.1	0.09	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.4	<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	0.4	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	1	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	5.5	0.55	0.51	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	98	95	99	97

PAHs in Soil						
Our Reference:	UNITS	97971-11	97971-12	97971-13	97971-14	97971-15
Your Reference	----------	Bund - 16	Bund - 16a	Bund - 17	Bund - 18	Bund - 19
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	102	99	95	97	99

PAHs in Soil						
Our Reference:	UNITS	97971-16	97971-17	97971-18	97971-19	97971-20
Your Reference	----------	Bund - 20	Bund - 21	Bund - 21a	Bund - 22	Bund - 23
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.070	NIL (+)VE	NIL (+)VE	0.10	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	101	104	96	99

PAHs in Soil						
Our Reference:	UNITS	97971-21	97971-22	97971-23	97971-24	97971-25
Your Reference	----------	Bund - 24	BH53	BH54	BH54	BH55
Depth	----------	-	0.8	0.5	1.5	0.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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	0.4	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.15	NIL (+)VE	0.79	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	93	103	98	96

PAHs in Soil						
Our Reference:	UNITS	97971-26	97971-27	97971-28	97971-29	97971-30
Your Reference	----------	BH55	BH56	BH56	BH56	BH57
Depth	----------	1.2	0.5	1.5	2.5	0.2 (0.5)
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	103	83	95	99	101

PAHs in Soil						
Our Reference:	UNITS	97971-31	97971-32	97971-33	97971-34	97971-35
Your Reference	----------	BH57	BH57	BH58	BH58	BH58
Depth	----------	2.0	3.0	1.0	3.0	4.0
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	97	99	100	103

PAHs in Soil						
Our Reference:	UNITS	97971-36	97971-37	97971-38	97971-39	97971-40
Your Reference	----------	BH47	BH47	BH47	BH47	BH48
Depth	----------	0.5	1.5	2.5	3.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.13	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	102	99	98	109

PAHs in Soil						
Our Reference:	UNITS	97971-41	97971-42	97971-43	97971-44	97971-45
Your Reference	----------	BH49 (48)	BH49	BH49	BH50	BH50
Depth	----------	0.5	1.5	0.5	0.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	94	99	97	99	97

PAHs in Soil						
Our Reference:	UNITS	97971-46	97971-47	97971-48	97971-49	97971-50
Your Reference	----------	BH51	BH51	BH52	BH52	SP1-1
Depth	----------	0.5	1.4	0.5	1.5	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Naphthalene	mg/kg	0.6	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.7	0.3	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.8	0.2	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	1.9	0.6	<0.1	<0.1	0.1
Anthracene	mg/kg	0.2	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	4.4	1.2	NIL (+)VE	NIL (+)VE	0.13
Surrogate p-Terphenyl-d14	%	93	99	99	102	99

PAHs in Soil						
Our Reference:	UNITS	97971-51	97971-52	97971-53	97971-54	97971-55
Your Reference	----------	SP1-2	SP1-3	SP1-4	SP1-5	SP1-5a
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.13	0.14	0.13	0.14	0.13
Surrogate p-Terphenyl-d14	%	98	100	98	99	103

PAHs in Soil						
Our Reference:	UNITS	97971-56	97971-57	97971-58	97971-59	97971-60
Your Reference	----------	SP1-6	SP1-6a	SP2-1	SP2-2	SP2-3
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.14	0.14	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	97	102	99	99

PAHs in Soil						
Our Reference:	UNITS	97971-61	97971-62	97971-63	97971-64	97971-65
Your Reference	----------	SP2-4	Bund - 11	Bund - 11a	S2	S2a
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
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	0.2	0.2	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	0.2	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<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	0.2	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.3	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	0.19	<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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	0.34	0.35	1.6	0.12
Surrogate p-Terphenyl-d14	%	92	101	104	101	111

PAHs in Soil				
Our Reference:	UNITS	97971-66	97971-67	97971-68
Your Reference	----------	S3	SP3a	SP3
Depth	----------	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil
Date extracted	-	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.1	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	0.15	0.14
Surrogate p-Terphenyl-d14	%	113	111	103

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-1	97971-2	97971-3	97971-4	97971-5
Your Reference	----------	Bund - 10	Bund - 10a	Bund - 12	Bund - 12a	Bund - 13
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	7	7	<4	8	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	22	23	13	27	18
Copper	mg/kg	35	34	7	15	23
Lead	mg/kg	85	69	11	27	56
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	18	17	4	8	11
Zinc	mg/kg	130	120	10	24	82

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-6	97971-7	97971-8	97971-9	97971-10
Your Reference	----------	Bund - 13a	Bund - 14	Bund - 14a	Bund - 15a	Bund - 15
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	7	8	8	9	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	18	16	16	16	18
Copper	mg/kg	25	23	26	17	18
Lead	mg/kg	55	19	20	17	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	15	12	14	9	9
Zinc	mg/kg	78	43	54	35	35

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-11	97971-12	97971-13	97971-14	97971-15
Your Reference	----------	Bund - 16	Bund - 16a	Bund - 17	Bund - 18	Bund - 19
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	5	5	6	6	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	12	19	17	10
Copper	mg/kg	35	35	24	28	12
Lead	mg/kg	18	16	17	18	41
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	17	15	12	13	3
Zinc	mg/kg	61	57	41	51	31

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-16	97971-17	97971-18	97971-19	97971-20
Your Reference	----------	Bund - 20	Bund - 21	Bund - 21a	Bund - 22	Bund - 23
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	<4	6	6	5	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	10	17	17	12	10
Copper	mg/kg	19	22	23	40	24
Lead	mg/kg	59	20	20	46	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	10	10	20	9
Zinc	mg/kg	35	39	40	80	49

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-21	97971-22	97971-23	97971-24	97971-25
Your Reference	----------	Bund - 24	BH53	BH54	BH54	BH55
Depth	----------	-	0.8	0.5	1.5	0.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	13	<4	7	4	<4
Cadmium	mg/kg	0.7	<0.4	<0.4	0.4	<0.4
Chromium	mg/kg	7	16	10	12	11
Copper	mg/kg	60	46	31	42	85
Lead	mg/kg	23	15	18	19	12
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	19	29	14	20	15
Zinc	mg/kg	120	86	53	75	46

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-26	97971-27	97971-28	97971-29	97971-30
Your Reference	----------	BH55	BH56	BH56	BH56	BH57
Depth	----------	1.2	0.5	1.5	2.5	0.2 (0.5)
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	15	6	6	10	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	19	21	16	19
Copper	mg/kg	66	16	20	43	27
Lead	mg/kg	22	9	16	16	18
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	30	16	14	20	14
Zinc	mg/kg	83	110	45	77	54

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-31	97971-32	97971-33	97971-34	97971-35
Your Reference	----------	BH57	BH57	BH58	BH58	BH58
Depth	----------	2.0	3.0	1.0	3.0	4.0
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	6	14	7	8	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	15	10	21	14
Copper	mg/kg	21	26	55	20	20
Lead	mg/kg	14	16	19	18	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	9	10	69	9	6
Zinc	mg/kg	36	38	100	25	27

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-36	97971-37	97971-38	97971-39	97971-40
Your Reference	----------	BH47	BH47	BH47	BH47	BH48
Depth	----------	0.5	1.5	2.5	3.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	<4	7	6	7	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	24	17	14	16	8
Copper	mg/kg	25	21	31	29	16
Lead	mg/kg	15	17	15	16	7
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	27	9	13	11	3
Zinc	mg/kg	64	36	56	56	19

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-41	97971-42	97971-43	97971-44	97971-45
Your Reference	----------	BH49 (48)	BH49	BH49	BH50	BH50
Depth	----------	0.5	1.5	0.5	0.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	10	<4	9	<4	11
Cadmium	mg/kg	<0.4	0.5	<0.4	<0.4	<0.4
Chromium	mg/kg	13	9	11	14	13
Copper	mg/kg	16	36	14	47	57
Lead	mg/kg	12	15	5	17	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	3	6	5	14	22
Zinc	mg/kg	18	33	27	62	91

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-46	97971-47	97971-48	97971-49	97971-50
Your Reference	----------	BH51	BH51	BH52	BH52	SP1-1
Depth	----------	0.5	1.4	0.5	1.5	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	5	<4	<4	9	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	20	14	9	11	6
Copper	mg/kg	29	43	45	37	39
Lead	mg/kg	16	17	15	17	16
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	27	17	19	15	20
Zinc	mg/kg	52	70	63	56	70

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-51	97971-52	97971-53	97971-54	97971-55
Your Reference	----------	SP1-2	SP1-3	SP1-4	SP1-5	SP1-5a
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	7	6	6	5	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	6	6	7	11	10
Copper	mg/kg	43	40	43	42	43
Lead	mg/kg	16	17	18	18	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	23	23	21	20	20
Zinc	mg/kg	78	71	72	71	70

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-56	97971-57	97971-58	97971-59	97971-60
Your Reference	----------	SP1-6	SP1-6a	SP2-1	SP2-2	SP2-3
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	4	7	<4	4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	9	9	8	8	9
Copper	mg/kg	36	38	23	19	11
Lead	mg/kg	16	17	12	13	13
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	17	18	7	8	5
Zinc	mg/kg	63	67	25	30	16

Acid Extractable metals in soil						
Our Reference:	UNITS	97971-61	97971-62	97971-63	97971-64	97971-65
Your Reference	----------	SP2-4	Bund - 11	Bund - 11a	S2	S2a
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	<4	6	7	6	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	8	9	13	13
Copper	mg/kg	12	35	36	27	28
Lead	mg/kg	11	27	25	34	38
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	15	16	14	14
Zinc	mg/kg	22	130	140	91	140

Acid Extractable metals in soil				
Our Reference:	UNITS	97971-66	97971-67	97971-68
Your Reference	----------	S3	SP3a	SP3
Depth	----------	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil
Date digested	-	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013
Arsenic	mg/kg	7	6	15
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	13	4	4
Copper	mg/kg	32	40	42
Lead	mg/kg	19	16	16
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	19	15	21
Zinc	mg/kg	65	68	72

Moisture						
Our Reference:	UNITS	97971-1	97971-2	97971-3	97971-4	97971-5
Your Reference	----------	Bund - 10	Bund - 10a	Bund - 12	Bund - 12a	Bund - 13
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	13	14	10	10	10

Moisture						
Our Reference:	UNITS	97971-6	97971-7	97971-8	97971-9	97971-10
Your Reference	----------	Bund - 13a	Bund - 14	Bund - 14a	Bund - 15a	Bund - 15
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	12	8.3	8.5	7.6	7.1

Moisture						
Our Reference:	UNITS	97971-11	97971-12	97971-13	97971-14	97971-15
Your Reference	----------	Bund - 16	Bund - 16a	Bund - 17	Bund - 18	Bund - 19
Depth	----------	-	-	-	-	-
Date Sampled		18/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	10	11	11	11	7.9

Moisture						
Our Reference:	UNITS	97971-16	97971-17	97971-18	97971-19	97971-20
Your Reference	----------	Bund - 20	Bund - 21	Bund - 21a	Bund - 22	Bund - 23
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	6.6	11	11	14	12

Moisture						
Our Reference:	UNITS	97971-21	97971-22	97971-23	97971-24	97971-25
Your Reference	----------	Bund - 24	BH53	BH54	BH54	BH55
Depth	----------	-	0.8	0.5	1.5	0.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	11	12	9.8	7.9	12

Moisture						
Our Reference:	UNITS	97971-26	97971-27	97971-28	97971-29	97971-30
Your Reference	----------	BH55	BH56	BH56	BH56	BH57
Depth	----------	1.2	0.5	1.5	2.5	0.2 (0.5)
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	8.9	6.8	13	15	20

Moisture						
Our Reference:	UNITS	97971-31	97971-32	97971-33	97971-34	97971-35
Your Reference	----------	BH57	BH57	BH58	BH58	BH58
Depth	----------	2.0	3.0	1.0	3.0	4.0
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	20	19	39	18	16

Moisture						
Our Reference:	UNITS	97971-36	97971-37	97971-38	97971-39	97971-40
Your Reference	----------	BH47	BH47	BH47	BH47	BH48
Depth	----------	0.5	1.5	2.5	3.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	9.2	17	18	13	16

Moisture						
Our Reference:	UNITS	97971-41	97971-42	97971-43	97971-44	97971-45
Your Reference	----------	BH49 (48)	BH49	BH49	BH50	BH50
Depth	----------	0.5	1.5	0.5	0.5	1.5
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	13	14	8.4	10	6.9

Moisture						
Our Reference:	UNITS	97971-46	97971-47	97971-48	97971-49	97971-50
Your Reference	----------	BH51	BH51	BH52	BH52	SP1-1
Depth	----------	0.5	1.4	0.5	1.5	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	20	13	12	8.4	6.5

Moisture						
Our Reference:	UNITS	97971-51	97971-52	97971-53	97971-54	97971-55
Your Reference	----------	SP1-2	SP1-3	SP1-4	SP1-5	SP1-5a
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	4.7	7.5	6.3	4.0	4.3

Moisture						
Our Reference:	UNITS	97971-56	97971-57	97971-58	97971-59	97971-60
Your Reference	----------	SP1-6	SP1-6a	SP2-1	SP2-2	SP2-3
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	4.2	4.1	11	7.2	6.2

Moisture						
Our Reference:	UNITS	97971-61	97971-62	97971-63	97971-64	97971-65
Your Reference	----------	SP2-4	Bund - 11	Bund - 11a	S2	S2a
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Moisture	%	12	11	10	11	11

Moisture				
Our Reference:	UNITS	97971-66	97971-67	97971-68
Your Reference	----------	S3	SP3a	SP3
Depth	----------	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013
Type of sample		Soil	Soil	Soil
Date prepared	-	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013
Moisture	%	17	4.6	4.9

vTRH(C6-C10)/BTEXN in Water					
Our Reference:	UNITS	97971-81	97971-82	97971-83	97971-84
Your Reference	----------	MW2	MW3	MW5	MW6
Depth	----------	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water
Date extracted	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Date analysed	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013
TRHC$_6$ - C$_9$	µg/L	34	37	<10	<10
TRHC$_6$ - C$_{10}$	µg/L	50	120	<10	<10
TRHC$_6$ - C$_{10}$ less BTEX (F1)	µg/L	50	92	<10	<10
Benzene	µg/L	<1	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	2	<1	<1
m+p-xylene	µg/L	<2	17	<2	<2
o-xylene	µg/L	<1	8	<1	<1
Naphthalene	µg/L	43	3	<1	<1
Surrogate Dibromofluoromethane	%	92	99	101	96
Surrogate toluene-d8	%	91	89	96	93
Surrogate 4-BFB	%	92	95	97	91

svTRH (C10-C40) in Water					
Our Reference:	UNITS	97971-81	97971-82	97971-83	97971-84
Your Reference	----------	MW2	MW3	MW5	MW6
Depth	----------	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water
Date extracted	-	26/09/2013	26/09/2013	26/09/2013	26/09/2013
Date analysed	-	27/09/2013	27/09/2013	27/09/2013	27/09/2013
TRHC$_{10}$ - C$_{14}$	µg/L	1,200	72	<50	<50
TRHC$_{15}$ - C$_{28}$	µg/L	4,000	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	µg/L	990	<100	<100	<100
TRH>C$_{10}$ - C$_{16}$	µg/L	2,000	74	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	µg/L	2,000	71	<50	<50
TRH>C$_{16}$ - C$_{34}$	µg/L	3,900	<100	<100	<100
TRH>C$_{34}$ - C$_{40}$	µg/L	650	<100	<100	<100
Surrogate o-Terphenyl	%	113	94	95	93

PAHs in Water Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- 	97971-69 S - Dam 1 - 20/09/2013 Water	97971-70 S - Dam 2 - 20/09/2013 Water	97971-71 S - Dam 3 - 20/09/2013 Water	97971-72 S - Dam 4 - 20/09/2013 Water	97971-73 S - Dam 5 - 20/09/2013 Water
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	97	91	87	90

PAHs in Water Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ----------	97971-74 S - Dam 6 - 20/09/2013 Water	97971-75 S - Dam 7 - 20/09/2013 Water	97971-76 S - Dam 7a - 20/09/2013 Water	97971-77 S - Dam 8 - 20/09/2013 Water	97971-78 S - Dam 9 - 20/09/2013 Water
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Naphthalene	µg/L	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	<1	<1	<1	<1	<1
Acenaphthene	µg/L	<1	<1	<1	<1	<1
Fluorene	µg/L	<1	<1	<1	<1	<1
Phenanthrene	µg/L	<1	<1	<1	<1	<1
Anthracene	µg/L	<1	<1	<1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	108	100	109	103

PAHs in Water Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ---------- -	97971-79 S - Dam 10 - 20/09/2013 Water	97971-80 S - Dam 11 - 20/09/2013 Water	97971-81 MW2 - 20/09/2013 Water	97971-82 MW3 - 20/09/2013 Water	97971-83 MW5 - 20/09/2013 Water
Date extracted	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Naphthalene	µg/L	<1	<1	38	2	<1
Acenaphthylene	µg/L	<1	<1	1	<1	<1
Acenaphthene	µg/L	<1	<1	10	<1	<1
Fluorene	µg/L	<1	<1	13	<1	<1
Phenanthrene	µg/L	<1	<1	15	<1	<1
Anthracene	µg/L	<1	<1	1	<1	<1
Fluoranthene	µg/L	<1	<1	<1	<1	<1
Pyrene	µg/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	µg/L	<1	<1	<1	<1	<1
Chrysene	µg/L	<1	<1	<1	<1	<1
Benzo(b+k)fluoranthene	µg/L	<2	<2	<2	<2	<2
Benzo(a)pyrene	µg/L	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	µg/L	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	<1	<1	<1	<1	<1
Benzo(a)pyrene TEQ	µg/L	<5	<5	<5	<5	<5
Total +ve PAH's	µg/L	NIL (+)VE	NIL (+)VE	79	1.6	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96	98	111	111	103

PAHs in Water		
Our Reference:	UNITS	97971-84
Your Reference	----------	MW6
Depth	----------	-
Date Sampled		20/09/2013
Type of sample		Water
Date extracted	-	25/09/2013
Date analysed	-	25/09/2013
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+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	%	96

HM in water - dissolved						
Our Reference:	UNITS	97971-69	97971-70	97971-71	97971-72	97971-73
Your Reference	----------	S - Dam 1	S - Dam 2	S - Dam 3	S - Dam 4	S - Dam 5
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic-Dissolved	µg/L	<1	1	2	2	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	1	3	2	2	2
Copper-Dissolved	µg/L	3	26	22	29	32
Lead-Dissolved	µg/L	<1	3	2	7	5
Mercury-Dissolved	µg/L	<0.05	0.07	0.06	<0.05	0.06
Nickel-Dissolved	µg/L	3	9	5	10	10
Zinc-Dissolved	µg/L	17	8	6	11	9

HM in water - dissolved						
Our Reference:	UNITS	97971-74	97971-75	97971-76	97971-77	97971-78
Your Reference	----------	S - Dam 6	S - Dam 7	S - Dam 7a	S - Dam 8	S - Dam 9
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic-Dissolved	µg/L	<1	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	2	<1	1	2	<1
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	<1	<1	<1	<1	<1
Zinc-Dissolved	µg/L	2	<1	<1	1	<1

HM in water - dissolved						
Our Reference:	UNITS	97971-79	97971-80	97971-81	97971-82	97971-83
Your Reference	----------	S - Dam 10	S - Dam 11	MW2	MW3	MW5
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Arsenic-Dissolved	µg/L	<1	<1	3	<1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	1
Copper-Dissolved	µg/L	11	2	1	<1	1
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	<1	<1	14	8	3
Zinc-Dissolved	µg/L	<1	2	42	39	6

HM in water - dissolved		
Our Reference:	UNITS	97971-84
Your Reference	----------	MW6
Depth	----------	-
Date Sampled		20/09/2013
Type of sample		Water
Date prepared	-	25/09/2013
Date analysed	-	25/09/2013
Arsenic-Dissolved	µg/L	4
Cadmium-Dissolved	µg/L	0.3
Chromium-Dissolved	µg/L	<1
Copper-Dissolved	µg/L	<1
Lead-Dissolved	µg/L	<1
Mercury-Dissolved	µg/L	<0.05
Nickel-Dissolved	µg/L	7
Zinc-Dissolved	µg/L	57

Miscellaneous Inorganics						
Our Reference:	UNITS	97971-69	97971-70	97971-71	97971-72	97971-73
Your Reference	----------	S - Dam 1	S - Dam 2	S - Dam 3	S - Dam 4	S - Dam 5
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
pH	pH Units	8.4	7.8	8.0	7.6	7.7
Electrical Conductivity	µS/cm	1,200	970	1,100	990	1,000
Total Suspended Solids	mg/L	31	480	1,300	210	380
BOD	mg/L	<5	[NA]	[NA]	[NA]	[NA]

Miscellaneous Inorganics						
Our Reference:	UNITS	97971-74	97971-75	97971-76	97971-77	97971-78
Your Reference	----------	S - Dam 6	S - Dam 7	S - Dam 7a	S - Dam 8	S - Dam 9
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
pH	pH Units	8.1	8.7	8.1	8.7	8.8
Electrical Conductivity	µS/cm	830	1,200	1,200	1,200	1,700
Total Suspended Solids	mg/L	1,000	<5	<5	28	8

Miscellaneous Inorganics						
Our Reference:	UNITS	97971-79	97971-80	97971-81	97971-82	97971-83
Your Reference	----------	S - Dam 10	S - Dam 11	MW2	MW3	MW5
Depth	----------	-	-	-	-	-
Date Sampled		20/09/2013	20/09/2013	20/09/2013	20/09/2013	20/09/2013
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
Date analysed	-	25/09/2013	25/09/2013	25/09/2013	25/09/2013	25/09/2013
pH	pH Units	8.2	7.9	7.1	7.1	8.0
Electrical Conductivity	µS/cm	830	830	2,500	20,000	1,500
Total Suspended Solids	mg/L	<5	24	[NA]	[NA]	[NA]
BOD	mg/L	<5	<5	[NA]	[NA]	[NA]

Miscellaneous Inorganics		
Our Reference:	UNITS	97971-84
Your Reference	----------	MW6
Depth	----------	-
Date Sampled		20/09/2013
Type of sample		Water
Date prepared	-	25/09/2013
Date analysed	-	25/09/2013
pH	pH Units	7.2
Electrical Conductivity	µS/cm	19,000

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. Note Naphthalene is determined from the VOC analysis.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Metals-022 ICP-MS	Determination of various metals by ICP-MS.
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 22nd ED, 4500-H+.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell and dedicated meter, in accordance with APHA 22nd ED 2510 and Rayment & Lyons.
Inorg-019	Suspended Solids - determined gravimetrcially by filtration of the sample, in accordance with APHA 22nd ED, 2540-D. The samples are dried at 104+/-5oC.
Inorg-091	BOD - Analysed in accordance with APHA 22nd ED 5210 D and in house INORG-091.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			25/09/2013	97971-23	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
Date analysed	-			25/09/2013	97971-23	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	97971-23	<25 || <25	LCS-4	124%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	97971-23	<25 || <25	LCS-4	124%
Benzene	mg/kg	0.2	Org-016	<0.2	97971-23	<0.2 || <0.2	LCS-4	125%
Toluene	mg/kg	0.5	Org-016	<0.5	97971-23	<0.5 || <0.5	LCS-4	135%
Ethylbenzene	mg/kg	1	Org-016	<1	97971-23	<1 || <1	LCS-4	128%
m+p-xylene	mg/kg	2	Org-016	<2	97971-23	<2 || <2	LCS-4	116%
o-Xylene	mg/kg	1	Org-016	<1	97971-23	<1 || <1	LCS-4	129%
naphthalene	mg/kg	1	Org-014	<1	97971-23	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	125	97971-23	112 || 109 || RPD: 3	LCS-4	118%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			25/09/2013	97971-23	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
Date analysed	-			25/09/2013	97971-23	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	97971-23	<50 || <50	LCS-4	132%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	97971-23	<100 || <100	LCS-4	123%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	97971-23	<100 || <100	LCS-4	101%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	97971-23	<50 || <50	LCS-4	132%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	97971-23	<100 || <100	LCS-4	123%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	97971-23	<100 || <100	LCS-4	101%
Surrogate o-Terphenyl	%		Org-003	93	97971-23	108 || 105 || RPD: 3	LCS-4	101%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			25/09/2013	97971-1	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
Date analysed	-			25/09/2013	97971-1	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	LCS-4	119%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	LCS-4	117%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	0.1 || <0.1	LCS-4	106%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	0.1 || <0.1	LCS-4	102%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	0.1 || <0.1	LCS-4	129%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	LCS-4	103%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	97971-1	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	97971-1	0.07 || 0.06 || RPD: 15	LCS-4	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	97971-1	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	97	97971-1	99 || 97 || RPD: 2	LCS-4	105%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date digested	-			25/09/2013	97971-1	25/09/2013 || 25/09/2013	LCS-1	25/09/2013
Date analysed	-			25/09/2013	97971-1	25/09/2013 || 25/09/2013	LCS-1	25/09/2013
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	97971-1	7 || 6 || RPD: 15	LCS-1	102%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	97971-1	<0.4 || <0.4	LCS-1	98%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	97971-1	22 || 24 || RPD: 9	LCS-1	105%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	97971-1	35 || 36 || RPD: 3	LCS-1	104%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	97971-1	85 || 63 || RPD: 30	LCS-1	104%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	97971-1	<0.1 || <0.1	LCS-1	81%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	97971-1	18 || 22 || RPD: 20	LCS-1	106%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	97971-1	130 || 110 || RPD: 17	LCS-1	106%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	[NT]

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			26/09/2013	[NT]	[NT]	LCS-W1	26/09/2013
Date analysed	-			26/09/2013	[NT]	[NT]	LCS-W1	26/09/2013
TRHC$_6$ - C$_9$	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	110%
TRHC$_6$ - C$_{10}$	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	110%
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	106%
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	113%
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	110%
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	LCS-W1	110%
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	LCS-W1	110%
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%		Org-016	101	[NT]	[NT]	LCS-W1	100%
Surrogate toluene-d8	%		Org-016	99	[NT]	[NT]	LCS-W1	94%
Surrogate 4-BFB	%		Org-016	96	[NT]	[NT]	LCS-W1	96%

QUALITY CONTROL svTRH (C10-C40) in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			26/09/2013	[NT]	[NT]	LCS-W1	26/09/2013
Date analysed	-			27/09/2013	[NT]	[NT]	LCS-W1	27/09/2013
TRHC$_{10}$ - C$_{14}$	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	102%
TRHC$_{15}$ - C$_{28}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	107%
TRHC$_{29}$ - C$_{36}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	92%
TRH>C$_{10}$ - C$_{16}$	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-W1	102%
TRH>C$_{16}$ - C$_{34}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	107%
TRH>C$_{34}$ - C$_{40}$	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-W1	92%
Surrogate o-Terphenyl	%		Org-003	105	[NT]	[NT]	LCS-W1	94%

QUALITY CONTROL PAHs in Water	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			25/09/2013	[NT]	[NT]	LCS-W1	25/09/2013
Date analysed	-			25/09/2013	[NT]	[NT]	LCS-W1	25/09/2013
Naphthalene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	105%
Acenaphthylene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	102%
Phenanthrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	91%
Anthracene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	87%
Pyrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	110%
Benzo(a)anthracene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	87%
Benzo(b+k)fluoranthene	µg/L	2	Org-012 subset	<2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	86%
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	99	[NT]	[NT]	LCS-W1	104%

QUALITY CONTROL HM in water - dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			25/09/2013	97971-75	25/09/2013 || 25/09/2013	LCS-W1	25/09/2013
Date analysed	-			25/09/2013	97971-75	25/09/2013 || 25/09/2013	LCS-W1	25/09/2013
Arsenic-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	97971-75	<1 || <1	LCS-W1	99%
Cadmium-Dissolved	µg/L	0.1	Metals-022 ICP-MS	<0.1	97971-75	<0.1 || <0.1	LCS-W1	98%
Chromium-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	97971-75	<1 || <1	LCS-W1	97%
Copper-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	97971-75	<1 || <1	LCS-W1	95%
Lead-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	97971-75	<1 || <1	LCS-W1	96%
Mercury-Dissolved	µg/L	0.05	Metals-021 CV-AAS	<0.05	97971-75	<0.05 || [N/T]	LCS-W1	104%
Nickel-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	97971-75	<1 || <1	LCS-W1	99%
Zinc-Dissolved	µg/L	1	Metals-022 ICP-MS	<1	97971-75	<1 || <1	LCS-W1	95%

QUALITY CONTROL Miscellaneous Inorganics	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date prepared	-			25/09/2013	97971-69	25/09/2013 || 25/09/2013	LCS-W1	25/09/2013
Date analysed	-			25/09/2013	97971-69	25/09/2013 || 25/09/2013	LCS-W1	25/09/2013
pH	pH Units		Inorg-001	[NT]	97971-69	8.4 || 8.4 || RPD: 0	LCS-W1	102%
Electrical Conductivity	µS/cm	1	Inorg-002	<1	97971-69	1200 || 1200 || RPD: 0	LCS-W1	108%
Total Suspended Solids	mg/L	5	Inorg-019	<5	97971-69	31 || 43 || RPD: 32	LCS-W1	94%
BOD	mg/L	5	Inorg-091	<5	97971-69	<5 || <5	LCS-W1	96%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-43	25/09/2013 || 25/09/2013	LCS-5	25/09/2013
Date analysed	-	97971-43	25/09/2013 || 25/09/2013	LCS-5	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	97971-43	<25 || <25	LCS-5	100%
TRHC$_6$ - C$_{10}$	mg/kg	97971-43	<25 || <25	LCS-5	100%
Benzene	mg/kg	97971-43	<0.2 || <0.2	LCS-5	71%
Toluene	mg/kg	97971-43	<0.5 || <0.5	LCS-5	100%
Ethylbenzene	mg/kg	97971-43	<1 || <1	LCS-5	109%
m+p-xylene	mg/kg	97971-43	<2 || <2	LCS-5	111%
o-Xylene	mg/kg	97971-43	<1 || <1	LCS-5	109%
naphthalene	mg/kg	97971-43	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97971-43	120 || 131 || RPD: 9	LCS-5	91%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-43	25/09/2013 || 25/09/2013	LCS-5	25/09/2013
Date analysed	-	97971-43	25/09/2013 || 25/09/2013	LCS-5	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97971-43	<50 || <50	LCS-5	130%
TRHC$_{15}$ - C$_{28}$	mg/kg	97971-43	<100 || <100	LCS-5	120%
TRHC$_{29}$ - C$_{36}$	mg/kg	97971-43	<100 || <100	LCS-5	102%
TRH>C$_{10}$-C$_{16}$	mg/kg	97971-43	<50 || <50	LCS-5	130%
TRH>C$_{16}$-C$_{34}$	mg/kg	97971-43	<100 || <100	LCS-5	120%
TRH>C$_{34}$-C$_{40}$	mg/kg	97971-43	<100 || <100	LCS-5	102%
Surrogate o-Terphenyl	%	97971-43	96 || 97 || RPD: 1	LCS-5	101%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-12	25/09/2013 || 25/09/2013	LCS-5	25/09/2013
Date analysed	-	97971-12	25/09/2013 || 25/09/2013	LCS-5	25/09/2013
Naphthalene	mg/kg	97971-12	<0.1 || <0.1	LCS-5	118%
Acenaphthylene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97971-12	<0.1 || <0.1	LCS-5	116%
Phenanthrene	mg/kg	97971-12	<0.1 || <0.1	LCS-5	105%
Anthracene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97971-12	<0.1 || <0.1	LCS-5	101%
Pyrene	mg/kg	97971-12	<0.1 || <0.1	LCS-5	128%
Benzo(a)anthracene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97971-12	<0.1 || <0.1	LCS-5	102%
Benzo(b+k)fluoranthene	mg/kg	97971-12	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97971-12	<0.05 || <0.05	LCS-5	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97971-12	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97971-12	99 || 97 || RPD: 2	LCS-5	106%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97971-12	25/09/2013 || 25/09/2013	LCS-2	25/09/2013
Date analysed	-	97971-12	25/09/2013 || 25/09/2013	LCS-2	25/09/2013
Arsenic	mg/kg	97971-12	5 || 4 || RPD: 22	LCS-2	101%
Cadmium	mg/kg	97971-12	<0.4 || <0.4	LCS-2	102%
Chromium	mg/kg	97971-12	12 || 14 || RPD: 15	LCS-2	103%
Copper	mg/kg	97971-12	35 || 38 || RPD: 8	LCS-2	103%
Lead	mg/kg	97971-12	16 || 19 || RPD: 17	LCS-2	102%
Mercury	mg/kg	97971-12	<0.1 || <0.1	LCS-2	80%
Nickel	mg/kg	97971-12	15 || 16 || RPD: 6	LCS-2	104%
Zinc	mg/kg	97971-12	57 || 59 || RPD: 3	LCS-2	104%

QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	97971-69	25/09/2013 || 25/09/2013	97971-76	25/09/2013
Date analysed	-	97971-69	25/09/2013 || 25/09/2013	97971-76	25/09/2013
Arsenic-Dissolved	µg/L	97971-69	<1 || [N/T]	97971-76	99%
Cadmium-Dissolved	µg/L	97971-69	<0.1 || [N/T]	97971-76	98%
Chromium-Dissolved	µg/L	97971-69	1 || [N/T]	97971-76	97%
Copper-Dissolved	µg/L	97971-69	3 || [N/T]	97971-76	95%
Lead-Dissolved	µg/L	97971-69	<1 || [N/T]	97971-76	96%
Mercury-Dissolved	µg/L	97971-69	<0.05 || <0.05	97971-76	100%
Nickel-Dissolved	µg/L	97971-69	3 || [N/T]	97971-76	99%
Zinc-Dissolved	µg/L	97971-69	17 || [N/T]	97971-76	95%

QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	97971-79	25/09/2013 || 25/09/2013
Date analysed	-	97971-79	25/09/2013 || 25/09/2013
pH	pH Units	97971-79	8.2 || 8.2 || RPD: 0
Electrical Conductivity	µS/cm	97971-79	830 || 830 || RPD: 0
Total Suspended Solids	mg/L	97971-79	<5 || <5

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-51	25/09/2013 || 25/09/2013	97971-44	25/09/2013
Date analysed	-	97971-51	25/09/2013 || 25/09/2013	97971-44	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	97971-51	<25 || <25	97971-44	102%
TRHC$_6$ - C$_{10}$	mg/kg	97971-51	<25 || <25	97971-44	102%
Benzene	mg/kg	97971-51	<0.2 || <0.2	97971-44	104%
Toluene	mg/kg	97971-51	<0.5 || <0.5	97971-44	104%
Ethylbenzene	mg/kg	97971-51	<1 || <1	97971-44	101%
m+p-xylene	mg/kg	97971-51	<2 || <2	97971-44	101%
o-Xylene	mg/kg	97971-51	<1 || <1	97971-44	99%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
naphthalene	mg/kg	97971-51	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97971-51	130 || 120 || RPD: 8	97971-44	99%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-51	25/09/2013 || 25/09/2013	97971-44	25/09/2013
Date analysed	-	97971-51	25/09/2013 || 25/09/2013	97971-44	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97971-51	<50 || <50	97971-44	131%
TRHC$_{15}$ - C$_{28}$	mg/kg	97971-51	<100 || <100	97971-44	123%
TRHC$_{29}$ - C$_{36}$	mg/kg	97971-51	<100 || <100	97971-44	102%
TRH>C$_{10}$-C$_{16}$	mg/kg	97971-51	<50 || <50	97971-44	131%
TRH>C$_{16}$-C$_{34}$	mg/kg	97971-51	<100 || <100	97971-44	123%
TRH>C$_{34}$-C$_{40}$	mg/kg	97971-51	<100 || <100	97971-44	102%
Surrogate o-Terphenyl	%	97971-51	101 || 102 || RPD: 1	97971-44	123%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-23	25/09/2013 || 25/09/2013	LCS-6	25/09/2013
Date analysed	-	97971-23	25/09/2013 || 25/09/2013	LCS-6	26/09/2013
Naphthalene	mg/kg	97971-23	<0.1 || <0.1	LCS-6	117%
Acenaphthylene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97971-23	<0.1 || <0.1	LCS-6	116%
Phenanthrene	mg/kg	97971-23	0.4 || 0.4 || RPD: 0	LCS-6	105%
Anthracene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97971-23	0.1 || 0.1 || RPD: 0	LCS-6	101%
Pyrene	mg/kg	97971-23	0.1 || 0.1 || RPD: 0	LCS-6	129%
Benzo(a)anthracene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97971-23	0.1 || 0.2 || RPD: 67	LCS-6	102%
Benzo(b+k)fluoranthene	mg/kg	97971-23	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97971-23	0.05 || 0.06 || RPD: 18	LCS-6	102%
Indeno(1,2,3-c,d)pyrene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97971-23	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97971-23	103 || 102 || RPD: 1	LCS-6	107%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97971-23	25/09/2013 || 25/09/2013	LCS-3	25/09/2013
Date analysed	-	97971-23	25/09/2013 || 25/09/2013	LCS-3	25/09/2013
Arsenic	mg/kg	97971-23	7 || 7 || RPD: 0	LCS-3	97%
Cadmium	mg/kg	97971-23	<0.4 || <0.4	LCS-3	98%
Chromium	mg/kg	97971-23	10 || 10 || RPD: 0	LCS-3	100%
Copper	mg/kg	97971-23	31 || 34 || RPD: 9	LCS-3	100%
Lead	mg/kg	97971-23	18 || 19 || RPD: 5	LCS-3	98%
Mercury	mg/kg	97971-23	<0.1 || <0.1	LCS-3	85%
Nickel	mg/kg	97971-23	14 || 17 || RPD: 19	LCS-3	101%
Zinc	mg/kg	97971-23	53 || 66 || RPD: 22	LCS-3	100%

QUALITY CONTROL HM in water - dissolved	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	97971-79	25/09/2013 || 25/09/2013
Date analysed	-	97971-79	25/09/2013 || 25/09/2013
Mercury-Dissolved	µg/L	97971-79	<0.05 || <0.05

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97971-60	25/09/2013
Date analysed	-	[NT]	[NT]	97971-60	25/09/2013
TRHC$_6$ - C$_9$	mg/kg	[NT]	[NT]	97971-60	123%
TRHC$_6$ - C$_{10}$	mg/kg	[NT]	[NT]	97971-60	123%
Benzene	mg/kg	[NT]	[NT]	97971-60	114%
Toluene	mg/kg	[NT]	[NT]	97971-60	127%
Ethylbenzene	mg/kg	[NT]	[NT]	97971-60	123%
m+p-xylene	mg/kg	[NT]	[NT]	97971-60	126%
o-Xylene	mg/kg	[NT]	[NT]	97971-60	123%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	97971-60	99%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97971-60	25/09/2013
Date analysed	-	[NT]	[NT]	97971-60	25/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	[NT]	[NT]	97971-60	124%
TRHC$_{15}$ - C$_{28}$	mg/kg	[NT]	[NT]	97971-60	115%
TRHC$_{29}$ - C$_{36}$	mg/kg	[NT]	[NT]	97971-60	94%
TRH>C$_{10}$-C$_{16}$	mg/kg	[NT]	[NT]	97971-60	124%
TRH>C$_{16}$-C$_{34}$	mg/kg	[NT]	[NT]	97971-60	115%
TRH>C$_{34}$-C$_{40}$	mg/kg	[NT]	[NT]	97971-60	94%
Surrogate o-Terphenyl	%	[NT]	[NT]	97971-60	102%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-32	25/09/2013 || 25/09/2013	LCS-7	25/09/2013
Date analysed	-	97971-32	25/09/2013 || 25/09/2013	LCS-7	25/09/2013
Naphthalene	mg/kg	97971-32	<0.1 || <0.1	LCS-7	120%
Acenaphthylene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97971-32	<0.1 || <0.1	LCS-7	122%
Phenanthrene	mg/kg	97971-32	<0.1 || <0.1	LCS-7	108%
Anthracene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97971-32	<0.1 || <0.1	LCS-7	101%
Pyrene	mg/kg	97971-32	<0.1 || <0.1	LCS-7	130%
Benzo(a)anthracene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97971-32	<0.1 || <0.1	LCS-7	98%
Benzo(b+k)fluoranthene	mg/kg	97971-32	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97971-32	<0.05 || <0.05	LCS-7	107%
Indeno(1,2,3-c,d)pyrene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97971-32	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97971-32	97 || 99 || RPD: 2	LCS-7	110%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97971-32	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
Date analysed	-	97971-32	25/09/2013 || 25/09/2013	LCS-4	25/09/2013
Arsenic	mg/kg	97971-32	14 || 18 || RPD: 25	LCS-4	97%
Cadmium	mg/kg	97971-32	<0.4 || <0.4	LCS-4	98%
Chromium	mg/kg	97971-32	15 || 14 || RPD: 7	LCS-4	99%
Copper	mg/kg	97971-32	26 || 32 || RPD: 21	LCS-4	99%
Lead	mg/kg	97971-32	16 || 17 || RPD: 6	LCS-4	97%
Mercury	mg/kg	97971-32	<0.1 || <0.1	LCS-4	90%
Nickel	mg/kg	97971-32	10 || 8 || RPD: 22	LCS-4	100%
Zinc	mg/kg	97971-32	38 || 39 || RPD: 3	LCS-4	99%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-43	25/09/2013 || 25/09/2013	97971-2	25/09/2013
Date analysed	-	97971-43	25/09/2013 || 25/09/2013	97971-2	25/09/2013
Naphthalene	mg/kg	97971-43	<0.1 || <0.1	97971-2	114%
Acenaphthylene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97971-43	<0.1 || <0.1	97971-2	116%
Phenanthrene	mg/kg	97971-43	<0.1 || <0.1	97971-2	104%
Anthracene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97971-43	<0.1 || <0.1	97971-2	101%
Pyrene	mg/kg	97971-43	<0.1 || <0.1	97971-2	127%
Benzo(a)anthracene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97971-43	<0.1 || <0.1	97971-2	103%
Benzo(b+k)fluoranthene	mg/kg	97971-43	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97971-43	<0.05 || <0.05	97971-2	100%
Indeno(1,2,3-c,d)pyrene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97971-43	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97971-43	97 || 104 || RPD: 7	97971-2	97%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97971-43	25/09/2013 || 25/09/2013	97971-2	25/09/2013
Date analysed	-	97971-43	25/09/2013 || 25/09/2013	97971-2	25/09/2013
Arsenic	mg/kg	97971-43	9 || 7 || RPD: 25	97971-2	92%
Cadmium	mg/kg	97971-43	<0.4 || <0.4	97971-2	86%
Chromium	mg/kg	97971-43	11 || 10 || RPD: 10	97971-2	92%
Copper	mg/kg	97971-43	14 || 13 || RPD: 7	97971-2	107%
Lead	mg/kg	97971-43	5 || 5 || RPD: 0	97971-2	77%
Mercury	mg/kg	97971-43	<0.1 || <0.1	97971-2	90%
Nickel	mg/kg	97971-43	5 || 4 || RPD: 22	97971-2	96%
Zinc	mg/kg	97971-43	27 || 24 || RPD: 12	97971-2	81%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97971-51	25/09/2013 || 25/09/2013	97971-24	25/09/2013
Date analysed	-	97971-51	25/09/2013 || 25/09/2013	97971-24	25/09/2013
Naphthalene	mg/kg	97971-51	<0.1 || <0.1	97971-24	111%
Acenaphthylene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97971-51	<0.1 || <0.1	97971-24	118%
Phenanthrene	mg/kg	97971-51	0.1 || 0.1 || RPD: 0	97971-24	106%
Anthracene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97971-51	<0.1 || <0.1	97971-24	101%
Pyrene	mg/kg	97971-51	<0.1 || <0.1	97971-24	128%
Benzo(a)anthracene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97971-51	<0.1 || <0.1	97971-24	105%
Benzo(b+k)fluoranthene	mg/kg	97971-51	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97971-51	<0.05 || <0.05	97971-24	100%
Indeno(1,2,3-c,d)pyrene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97971-51	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97971-51	98 || 99 || RPD: 1	97971-24	99%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97971-51	25/09/2013 || 25/09/2013	97971-24	25/09/2013
Date analysed	-	97971-51	25/09/2013 || 25/09/2013	97971-24	25/09/2013
Arsenic	mg/kg	97971-51	7 || 5 || RPD: 33	97971-24	85%
Cadmium	mg/kg	97971-51	<0.4 || <0.4	97971-24	81%
Chromium	mg/kg	97971-51	6 || 6 || RPD: 0	97971-24	92%
Copper	mg/kg	97971-51	43 || 43 || RPD: 0	97971-24	106%
Lead	mg/kg	97971-51	16 || 16 || RPD: 0	97971-24	85%
Mercury	mg/kg	97971-51	<0.1 || <0.1	97971-24	89%
Nickel	mg/kg	97971-51	23 || 20 || RPD: 14	97971-24	87%
Zinc	mg/kg	97971-51	78 || 70 || RPD: 11	97971-24	85%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97971-44	25/09/2013
Date analysed	-	[NT]	[NT]	97971-44	25/09/2013
Naphthalene	mg/kg	[NT]	[NT]	97971-44	116%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	97971-44	115%
Phenanthrene	mg/kg	[NT]	[NT]	97971-44	104%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	97971-44	101%
Pyrene	mg/kg	[NT]	[NT]	97971-44	128%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	97971-44	101%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	97971-44	100%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	97971-44	95%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97971-59	25/09/2013 || 25/09/2013	97971-44	25/09/2013
Date analysed	-	97971-59	25/09/2013 || 25/09/2013	97971-44	25/09/2013
Arsenic	mg/kg	97971-59	4 || 4 || RPD: 0	97971-44	85%
Cadmium	mg/kg	97971-59	<0.4 || <0.4	97971-44	85%
Chromium	mg/kg	97971-59	8 || 9 || RPD: 12	97971-44	89%
Copper	mg/kg	97971-59	19 || 23 || RPD: 19	97971-44	100%
Lead	mg/kg	97971-59	13 || 13 || RPD: 0	97971-44	83%
Mercury	mg/kg	97971-59	<0.1 || <0.1	97971-44	92%
Nickel	mg/kg	97971-59	8 || 9 || RPD: 12	97971-44	87%
Zinc	mg/kg	97971-59	30 || 33 || RPD: 10	97971-44	88%

QUALITY CONTROL Miscellaneous Inorganics	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date prepared	-	97971-79	25/09/2013 || 25/09/2013
Date analysed	-	97971-79	25/09/2013 || 25/09/2013
pH	pH Units	97971-79	8.2 || 8.2 || RPD: 0
Electrical Conductivity	µS/cm	97971-79	830 || 830 || RPD: 0
Total Suspended Solids	mg/L	97971-79	<5 || <5

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97971-60	25/09/2013
Date analysed	-	[NT]	[NT]	97971-60	25/09/2013
Naphthalene	mg/kg	[NT]	[NT]	97971-60	114%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	97971-60	112%
Phenanthrene	mg/kg	[NT]	[NT]	97971-60	102%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	97971-60	99%
Pyrene	mg/kg	[NT]	[NT]	97971-60	125%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	97971-60	93%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	97971-60	99%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	97971-60	92%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	97971-60	25/09/2013
Date analysed	-	[NT]	[NT]	97971-60	25/09/2013
Arsenic	mg/kg	[NT]	[NT]	97971-60	90%
Cadmium	mg/kg	[NT]	[NT]	97971-60	89%
Chromium	mg/kg	[NT]	[NT]	97971-60	94%
Copper	mg/kg	[NT]	[NT]	97971-60	105%
Lead	mg/kg	[NT]	[NT]	97971-60	95%
Mercury	mg/kg	[NT]	[NT]	97971-60	92%
Nickel	mg/kg	[NT]	[NT]	97971-60	89%
Zinc	mg/kg	[NT]	[NT]	97971-60	95%

Report Comments:

Total Recoverable Hydrocarbons in soil:# Percent recovery is not possible to report as the high concentration of analytes in the sa have caused interference.

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

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

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

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CERTIFICATE OF ANALYSIS 97778

Client:
David Lane Associates (Maitland)
42B Church St
Maitland
NSW 2320

Attention: Malcolm Adrian

Sample log in details:

Your Reference:	**DLH1121 - Horsley Park**
No. of samples:	46 Soils
Date samples received / completed instructions received	20/09/2013 / 20/09/2013

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:	27/09/13 / 26/09/13
Date of Preliminary Report:	None Issued

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

Results Approved By:

Jacinta Hurst
Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97778-1	97778-2	97778-22	97778-24	97778-27
Your Reference	----------	BH26	BH26	BH39	BH39	BH41
Depth	----------	1.0	4.0	3.0	7.5	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	86	86	90	89	89

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97778-28	97778-29	97778-30	97778-31	97778-32
Your Reference	----------	BH41	BH41	BH41	BH41	BH42
Depth	----------	5.0	7.5	12.0	15.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	86	88	86	84	95

vTRH(C6-C10)/BTEXN in Soil			
Our Reference:	UNITS	97778-33	97778-34
Your Reference	----------	BH42	BH42
Depth	----------	3.0	8.0
Date Sampled		18/09/2013	18/09/2013
Type of sample		Soil	Soil
Date extracted	-	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25
vTPHC$_6$ - 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
Surrogate aaa-Trifluorotoluene	%	80	93

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97778-1	97778-2	97778-22	97778-24	97778-27
Your Reference	----------	BH26	BH26	BH39	BH39	BH41
Depth	----------	1.0	4.0	3.0	7.5	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	160	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	410	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	300	<50	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	300	<50	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	560	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	93	#	88	91	84

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97778-28	97778-29	97778-30	97778-31	97778-32
Your Reference	----------	BH41	BH41	BH41	BH41	BH42
Depth	----------	5.0	7.5	12.0	15.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	85	91	91	89	94

svTRH (C10-C40) in Soil			
Our Reference:	UNITS	97778-33	97778-34
Your Reference	----------	BH42	BH42
Depth	----------	3.0	8.0
Date Sampled		18/09/2013	18/09/2013
Type of sample		Soil	Soil
Date extracted	-	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	90	90

PAHs in Soil						
Our Reference:	UNITS	97778-1	97778-2	97778-3	97778-4	97778-5
Your Reference	----------	BH26	BH26	BH27	BH27	BH28
Depth	----------	1.0	4.0	1.0	2.5	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Naphthalene	mg/kg	<0.1	0.3	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	0.2	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	0.6	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	1.4	<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	0.2	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	2.9	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	92	99	97	96	97

PAHs in Soil						
Our Reference:	UNITS	97778-6	97778-7	97778-8	97778-9	97778-10
Your Reference	----------	BH29	BH29	BH30	BH30	BH31
Depth	----------	1.0	3.0	1.0	3.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	95	96	101	99

PAHs in Soil						
Our Reference:	UNITS	97778-11	97778-12	97778-13	97778-14	97778-15
Your Reference	----------	BH31	BH32	BH32	BH33	BH33
Depth	----------	3.0	0.7	2.5	1.0	3.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	99	96	99	99

PAHs in Soil						
Our Reference:	UNITS	97778-16	97778-17	97778-18	97778-19	97778-20
Your Reference	----------	BH34	BH35	BH36	BH37	BH38
Depth	----------	1.0	1.0	1.0	1.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	99	99	95	99

PAHs in Soil						
Our Reference:	UNITS	97778-21	97778-22	97778-23	97778-24	97778-25
Your Reference	----------	BH39	BH39	BH39	BH39	BH39
Depth	----------	1.0	3.0	5.0	7.5	9.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.11	NIL (+)VE	0.10	0.11	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	98	99	98	99

PAHs in Soil						
Our Reference:	UNITS	97778-26	97778-27	97778-28	97778-29	97778-30
Your Reference	----------	BH40	BH41	BH41	BH41	BH41
Depth	----------	3.0	1.0	5.0	7.5	12.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
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	0.6
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	0.6
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	0.5
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.3
Benzo(a)pyrene	mg/kg	0.06	<0.05	<0.05	<0.05	0.18
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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.30	NIL (+)VE	NIL (+)VE	0.15	2.8
Surrogate p-Terphenyl-d14	%	98	96	95	96	97

PAHs in Soil						
Our Reference:	UNITS	97778-31	97778-32	97778-33	97778-34	97778-35
Your Reference	----------	BH41	BH42	BH42	BH42	BH44
Depth	----------	15.0	1.0	3.0	8.0	0.5
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	0.15	0.12	0.21	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	96	99	101	98

PAHs in Soil			
Our Reference:	UNITS	97778-36	97778-37
Your Reference	----------	BH46	BH46
Depth	----------	1.0	2.5
Date Sampled		18/09/2013	18/09/2013
Type of sample		Soil	Soil
Date extracted	-	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	99

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-1	97778-2	97778-3	97778-4	97778-5
Your Reference	----------	BH26	BH26	BH27	BH27	BH28
Depth	----------	1.0	4.0	1.0	2.5	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	4	5	<4	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	0.5	0.6
Chromium	mg/kg	14	10	28	200	210
Copper	mg/kg	31	14	8	44	38
Lead	mg/kg	16	8	8	6	6
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	16	16	13	190	160
Zinc	mg/kg	66	56	7	78	68

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-6	97778-7	97778-8	97778-9	97778-10
Your Reference	----------	BH29	BH29	BH30	BH30	BH31
Depth	----------	1.0	3.0	1.0	3.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	<4	4	<4	<4	5
Cadmium	mg/kg	<0.4	<0.4	0.5	0.6	<0.4
Chromium	mg/kg	9	14	260	160	12
Copper	mg/kg	12	21	41	43	25
Lead	mg/kg	11	6	4	6	8
Mercury	mg/kg	<0.1	0.2	0.1	0.1	<0.1
Nickel	mg/kg	4	11	160	170	6
Zinc	mg/kg	9	41	66	71	26

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-11	97778-12	97778-13	97778-14	97778-15
Your Reference	----------	BH31	BH32	BH32	BH33	BH33
Depth	----------	3.0	0.7	2.5	1.0	3.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	<4	6	5	<4	<4
Cadmium	mg/kg	<0.4	0.5	0.5	<0.4	<0.4
Chromium	mg/kg	12	210	150	32	16
Copper	mg/kg	44	38	38	23	39
Lead	mg/kg	10	7	7	9	11
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	0.1
Nickel	mg/kg	17	140	130	21	21
Zinc	mg/kg	71	63	63	34	78

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-16	97778-17	97778-18	97778-19	97778-20
Your Reference	----------	BH34	BH35	BH36	BH37	BH38
Depth	----------	1.0	1.0	1.0	1.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	4	21	10	10	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	10	15	14	10	11
Copper	mg/kg	25	33	14	17	10
Lead	mg/kg	14	17	9	4	7
Mercury	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	6	15	4	5	3
Zinc	mg/kg	42	51	18	38	9

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-21	97778-22	97778-23	97778-24	97778-25
Your Reference	----------	BH39	BH39	BH39	BH39	BH39
Depth	----------	1.0	3.0	5.0	7.5	9.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	11	16	8	9	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	17	17	16	23	16
Copper	mg/kg	35	37	34	35	34
Lead	mg/kg	12	16	14	13	12
Mercury	mg/kg	0.1	0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	22	26	20	19	25
Zinc	mg/kg	70	73	66	64	77

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-26	97778-27	97778-28	97778-29	97778-30
Your Reference	----------	BH40	BH41	BH41	BH41	BH41
Depth	----------	3.0	1.0	5.0	7.5	12.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	11	12	11	8	6
Cadmium	mg/kg	0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	24	17	17	22	17
Copper	mg/kg	24	35	34	40	42
Lead	mg/kg	34	20	13	17	15
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	10	25	21	21	19
Zinc	mg/kg	86	81	66	74	70

Acid Extractable metals in soil						
Our Reference:	UNITS	97778-31	97778-32	97778-33	97778-34	97778-35
Your Reference	----------	BH41	BH42	BH42	BH42	BH44
Depth	----------	15.0	1.0	3.0	8.0	0.5
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arsenic	mg/kg	4	6	4	<4	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	11	10	9	12
Copper	mg/kg	38	43	44	33	41
Lead	mg/kg	14	16	16	13	15
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	17	20	18	15	15
Zinc	mg/kg	69	73	73	59	68

Acid Extractable metals in soil			
Our Reference:	UNITS	97778-36	97778-37
Your Reference	----------	BH46	BH46
Depth	----------	1.0	2.5
Date Sampled		18/09/2013	18/09/2013
Type of sample		Soil	Soil
Date digested	-	24/09/2013	24/09/2013
Date analysed	-	24/09/2013	24/09/2013
Arsenic	mg/kg	6	4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	16	7
Copper	mg/kg	22	12
Lead	mg/kg	15	5
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	9	2
Zinc	mg/kg	35	12

Moisture						
Our Reference:	UNITS	97778-1	97778-2	97778-3	97778-4	97778-5
Your Reference	----------	BH26	BH26	BH27	BH27	BH28
Depth	----------	1.0	4.0	1.0	2.5	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	21	19	16	20	19

Moisture						
Our Reference:	UNITS	97778-6	97778-7	97778-8	97778-9	97778-10
Your Reference	----------	BH29	BH29	BH30	BH30	BH31
Depth	----------	1.0	3.0	1.0	3.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	20	14	22	14	16

Moisture						
Our Reference:	UNITS	97778-11	97778-12	97778-13	97778-14	97778-15
Your Reference	----------	BH31	BH32	BH32	BH33	BH33
Depth	----------	3.0	0.7	2.5	1.0	3.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	11	19	15	18	9.0

Moisture						
Our Reference:	UNITS	97778-16	97778-17	97778-18	97778-19	97778-20
Your Reference	----------	BH34	BH35	BH36	BH37	BH38
Depth	----------	1.0	1.0	1.0	1.0	1.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	15	17	15	16	18

Moisture						
Our Reference:	UNITS	97778-21	97778-22	97778-23	97778-24	97778-25
Your Reference	----------	BH39	BH39	BH39	BH39	BH39
Depth	----------	1.0	3.0	5.0	7.5	9.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	6.4	9.0	9.4	8.8	10

Moisture						
Our Reference:	UNITS	97778-26	97778-27	97778-28	97778-29	97778-30
Your Reference	----------	BH40	BH41	BH41	BH41	BH41
Depth	----------	3.0	1.0	5.0	7.5	12.0
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	19	13	12	13	10

Moisture						
Our Reference:	UNITS	97778-31	97778-32	97778-33	97778-34	97778-35
Your Reference	----------	BH41	BH42	BH42	BH42	BH44
Depth	----------	15.0	1.0	3.0	8.0	0.5
Date Sampled		18/09/2013	18/09/2013	18/09/2013	18/09/2013	18/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	15	5.4	6.8	5.0	8.8

Moisture			
Our Reference:	UNITS	97778-36	97778-37
Your Reference	----------	BH46	BH46
Depth	----------	1.0	2.5
Date Sampled		18/09/2013	18/09/2013
Type of sample		Soil	Soil
Date prepared	-	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013
Moisture	%	14	15

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.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97778-1	23/09/2013 || 23/09/2013	LCS-13	23/09/2013
Date analysed	-			24/09/2013	97778-1	24/09/2013 || 24/09/2013	LCS-13	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	97778-1	<25 || <25	LCS-13	94%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	97778-1	<25 || <25	LCS-13	94%
Benzene	mg/kg	0.2	Org-016	<0.2	97778-1	<0.2 || <0.2	LCS-13	76%
Toluene	mg/kg	0.5	Org-016	<0.5	97778-1	<0.5 || <0.5	LCS-13	104%
Ethylbenzene	mg/kg	1	Org-016	<1	97778-1	<1 || <1	LCS-13	106%
m+p-xylene	mg/kg	2	Org-016	<2	97778-1	<2 || <2	LCS-13	93%
o-Xylene	mg/kg	1	Org-016	<1	97778-1	<1 || <1	LCS-13	108%
naphthalene	mg/kg	1	Org-014	<1	97778-1	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	97	97778-1	86 || 89 || RPD: 3	LCS-13	94%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97778-1	23/09/2013 || 23/09/2013	LCS-13	23/09/2013
Date analysed	-			24/09/2013	97778-1	24/09/2013 || 24/09/2013	LCS-13	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	97778-1	<50 || <50	LCS-13	130%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	97778-1	<100 || <100	LCS-13	116%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	97778-1	<100 || <100	LCS-13	130%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	97778-1	<50 || <50	LCS-13	130%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	97778-1	<100 || <100	LCS-13	116%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	97778-1	<100 || <100	LCS-13	130%
Surrogate o-Terphenyl	%		Org-003	95	97778-1	93 || 95 || RPD: 2	LCS-13	106%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97778-1	23/09/2013 || 23/09/2013	LCS-12	23/09/2013
Date analysed	-			23/09/2013	97778-1	23/09/2013 || 23/09/2013	LCS-12	23/09/2013
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	LCS-12	111%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	LCS-12	108%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || 0.1	LCS-12	96%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	LCS-12	93%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	LCS-12	117%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	LCS-12	90%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	97778-1	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	97778-1	<0.05 || <0.05	LCS-12	92%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	97778-1	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	96	97778-1	92 || 97 || RPD: 5	LCS-12	97%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date digested	-			23/09/2013	97778-1	24/09/2013 || 24/09/2013	LCS-1	23/09/2013
Date analysed	-			23/09/2013	97778-1	24/09/2013 || 24/09/2013	LCS-1	24/09/2013
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	97778-1	4 || <4	LCS-1	100%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	97778-1	<0.4 || <0.4	LCS-1	103%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	97778-1	14 || 12 || RPD: 15	LCS-1	103%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	97778-1	31 || 32 || RPD: 3	LCS-1	102%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	97778-1	16 || 17 || RPD: 6	LCS-1	102%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	97778-1	<0.1 || <0.1	LCS-1	88%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	97778-1	16 || 15 || RPD: 6	LCS-1	103%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	97778-1	66 || 63 || RPD: 5	LCS-1	103%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	[NT]

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97778-32	23/09/2013 || 23/09/2013	97778-2	23/09/2013
Date analysed	-	97778-32	24/09/2013 || 24/09/2013	97778-2	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	97778-32	<25 || <25	97778-2	87%
TRHC$_6$ - C$_{10}$	mg/kg	97778-32	<25 || <25	97778-2	87%
Benzene	mg/kg	97778-32	<0.2 || <0.2	97778-2	62%
Toluene	mg/kg	97778-32	<0.5 || <0.5	97778-2	97%
Ethylbenzene	mg/kg	97778-32	<1 || <1	97778-2	100%
m+p-xylene	mg/kg	97778-32	<2 || <2	97778-2	89%
o-Xylene	mg/kg	97778-32	<1 || <1	97778-2	103%
naphthalene	mg/kg	97778-32	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97778-32	95 || 92 || RPD: 3	97778-2	86%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97778-22	23/09/2013 || 23/09/2013	97778-2	23/09/2013
Date analysed	-	97778-22	24/09/2013 || 24/09/2013	97778-2	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97778-22	<50 || <50	97778-2	#
TRHC$_{15}$ - C$_{28}$	mg/kg	97778-22	<100 || <100	97778-2	#
TRHC$_{29}$ - C$_{36}$	mg/kg	97778-22	<100 || <100	97778-2	120%
TRH>C$_{10}$-C$_{16}$	mg/kg	97778-22	<50 || <50	97778-2	#
TRH>C$_{16}$-C$_{34}$	mg/kg	97778-22	<100 || <100	97778-2	#
TRH>C$_{34}$-C$_{40}$	mg/kg	97778-22	<100 || <100	97778-2	120%
Surrogate o-Terphenyl	%	97778-22	88 || 88 || RPD: 0	97778-2	120%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	97778-11	23/09/2013 || 23/09/2013
Date analysed	-	97778-11	23/09/2013 || 23/09/2013
Naphthalene	mg/kg	97778-11	<0.1 || <0.1
Acenaphthylene	mg/kg	97778-11	<0.1 || <0.1
Acenaphthene	mg/kg	97778-11	<0.1 || <0.1
Fluorene	mg/kg	97778-11	<0.1 || <0.1
Phenanthrene	mg/kg	97778-11	<0.1 || <0.1
Anthracene	mg/kg	97778-11	<0.1 || <0.1
Fluoranthene	mg/kg	97778-11	<0.1 || <0.1
Pyrene	mg/kg	97778-11	<0.1 || <0.1
Benzo(a)anthracene	mg/kg	97778-11	<0.1 || <0.1
Chrysene	mg/kg	97778-11	<0.1 || <0.1

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Benzo(b+k)fluoranthene	mg/kg	97778-11	<0.2 || <0.2
Benzo(a)pyrene	mg/kg	97778-11	<0.05 || <0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	97778-11	<0.1 || <0.1
Dibenzo(a,h)anthracene	mg/kg	97778-11	<0.1 || <0.1
Benzo(g,h,i)perylene	mg/kg	97778-11	<0.1 || <0.1
Surrogate p-Terphenyl-d14	%	97778-11	99 || 99 || RPD: 0

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97778-11	24/09/2013 || 24/09/2013	LCS-2	26/09/2013
Date analysed	-	97778-11	24/09/2013 || 24/09/2013	LCS-2	26/09/2013
Arsenic	mg/kg	97778-11	<4 || 4	LCS-2	98%
Cadmium	mg/kg	97778-11	<0.4 || <0.4	LCS-2	101%
Chromium	mg/kg	97778-11	12 || 14 || RPD: 15	LCS-2	101%
Copper	mg/kg	97778-11	44 || 51 || RPD: 15	LCS-2	99%
Lead	mg/kg	97778-11	10 || 11 || RPD: 10	LCS-2	100%
Mercury	mg/kg	97778-11	<0.1 || <0.1	LCS-2	88%
Nickel	mg/kg	97778-11	17 || 19 || RPD: 11	LCS-2	102%
Zinc	mg/kg	97778-11	71 || 80 || RPD: 12	LCS-2	102%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD
Date extracted	-	97778-32	23/09/2013 || 23/09/2013
Date analysed	-	97778-32	24/09/2013 || 24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97778-32	<50 || <50
TRHC$_{15}$ - C$_{28}$	mg/kg	97778-32	<100 || <100
TRHC$_{29}$ - C$_{36}$	mg/kg	97778-32	<100 || <100
TRH>C$_{10}$-C$_{16}$	mg/kg	97778-32	<50 || <50
TRH>C$_{16}$-C$_{34}$	mg/kg	97778-32	<100 || <100
TRH>C$_{34}$-C$_{40}$	mg/kg	97778-32	<100 || <100
Surrogate o-Terphenyl	%	97778-32	94 || 96 || RPD: 2

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97778-22	23/09/2013 || 23/09/2013	97778-2	23/09/2013
Date analysed	-	97778-22	23/09/2013 || 23/09/2013	97778-2	23/09/2013
Naphthalene	mg/kg	97778-22	<0.1 || <0.1	97778-2	120%
Acenaphthylene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97778-22	<0.1 || <0.1	97778-2	116%
Phenanthrene	mg/kg	97778-22	<0.1 || <0.1	97778-2	125%
Anthracene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97778-22	<0.1 || <0.1	97778-2	95%
Pyrene	mg/kg	97778-22	<0.1 || <0.1	97778-2	118%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(a)anthracene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97778-22	<0.1 || <0.1	97778-2	91%
Benzo(b+k)fluoranthene	mg/kg	97778-22	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97778-22	<0.05 || <0.05	97778-2	93%
Indeno(1,2,3-c,d)pyrene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97778-22	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97778-22	98 || 100 || RPD: 2	97778-2	96%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97778-22	24/09/2013 || 24/09/2013	97778-2	23/09/2013
Date analysed	-	97778-22	24/09/2013 || 24/09/2013	97778-2	24/09/2013
Arsenic	mg/kg	97778-22	16 || 17 || RPD: 6	97778-2	98%
Cadmium	mg/kg	97778-22	<0.4 || 0.4	97778-2	92%
Chromium	mg/kg	97778-22	17 || 17 || RPD: 0	97778-2	98%
Copper	mg/kg	97778-22	37 || 44 || RPD: 17	97778-2	110%
Lead	mg/kg	97778-22	16 || 17 || RPD: 6	97778-2	95%
Mercury	mg/kg	97778-22	0.1 || 0.1 || RPD: 0	97778-2	83%
Nickel	mg/kg	97778-22	26 || 28 || RPD: 7	97778-2	96%
Zinc	mg/kg	97778-22	73 || 79 || RPD: 8	97778-2	114%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97778-32	23/09/2013 || 23/09/2013	97778-23	23/09/2013
Date analysed	-	97778-32	23/09/2013 || 23/09/2013	97778-23	24/09/2013
Naphthalene	mg/kg	97778-32	<0.1 || <0.1	97778-23	108%
Acenaphthylene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97778-32	<0.1 || <0.1	97778-23	111%
Phenanthrene	mg/kg	97778-32	0.1 || 0.2 || RPD: 67	97778-23	98%
Anthracene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97778-32	<0.1 || <0.1	97778-23	93%
Pyrene	mg/kg	97778-32	<0.1 || <0.1	97778-23	118%
Benzo(a)anthracene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97778-32	<0.1 || <0.1	97778-23	95%
Benzo(b+k)fluoranthene	mg/kg	97778-32	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97778-32	<0.05 || <0.05	97778-23	95%
Indeno(1,2,3-c,d)pyrene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97778-32	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97778-32	96 || 98 || RPD: 2	97778-23	99%

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QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97778-32	24/09/2013 || 24/09/2013	97778-23	23/09/2013
Date analysed	-	97778-32	24/09/2013 || 24/09/2013	97778-23	23/09/2013
Arsenic	mg/kg	97778-32	6 || 5 || RPD: 18	97778-23	97%
Cadmium	mg/kg	97778-32	<0.4 || <0.4	97778-23	89%
Chromium	mg/kg	97778-32	11 || 10 || RPD: 10	97778-23	96%
Copper	mg/kg	97778-32	43 || 42 || RPD: 2	97778-23	113%
Lead	mg/kg	97778-32	16 || 14 || RPD: 13	97778-23	90%
Mercury	mg/kg	97778-32	<0.1 || <0.1	97778-23	89%
Nickel	mg/kg	97778-32	20 || 19 || RPD: 5	97778-23	92%
Zinc	mg/kg	97778-32	73 || 72 || RPD: 1	97778-23	94%

Report Comments:

TRH_S_NEPM in soil # Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

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

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

Envirolab Services Pty Ltd
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CERTIFICATE OF ANALYSIS 97800

Client:

David Lane Associates (Maitland)
42B Church St
Maitland
NSW 2320

Attention: Malcolm Adrian

Sample log in details:

Your Reference:	**DLH1121 - Horsley Park**
No. of samples:	109 soils
Date samples received / completed instructions received	18/09/13, 20/09/13 20/09/2013

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:	27/09/13	/	27/09/13
Date of Preliminary Report:	Not issued		

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

Results Approved By:

Jacinta Hurst
Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-5	97800-12	97800-16	97800-20	97800-45
Your Reference	----------	TP2	TP4	TP6	TP8	Bund - 8
Depth	----------	1.5	1.5	1.0	1.0	2.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	13/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	78	75	75	74	81

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-48	97800-49	97800-50	97800-54	97800-55
Your Reference	----------	Bund - 9	BH14	BH14	BH15	BH15
Depth	----------	3.5	2.4	3.5	2.0	5.0
Date Sampled		12/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	77	79	75	78

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-61	97800-63	97800-64	97800-66	97800-67
Your Reference	----------	BH19	BH3-S	BH3	BH4	BH4
Depth	----------	0.1	Surface	0.5	0.3	1.4
Date Sampled		16/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	78	76	77	78	72

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-68	97800-69	97800-75	97800-76	97800-77
Your Reference	----------	BH4	BH4	BH7-S	BH7	BH8
Depth	----------	2.2	4.5	Surface	0.5	0.3
Date Sampled		13/09/2013	13/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	77	80	75	98	98

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-78	97800-79	97800-80	97800-81	97800-82
Your Reference	----------	BH8	BH9	BH9	BH10	BH11
Depth	----------	0.6	0.3	1.2	0.8	1
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	96	100	98	96	101

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-83	97800-84	97800-85	97800-86	97800-87
Your Reference	----------	BH11	BH12	BH13	BH14	BH14
Depth	----------	1.8	0.6	0.3	0.3	0.8
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	96	96	102	103	102

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-88	97800-93	97800-94	97800-100	97800-101
Your Reference	----------	BH14	BH21	BH22	BH24-S	BH24-SA
Depth	----------	1.7	0.3	0.1	Surface	Surface
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	102	101	97	103	102

vTRH(C6-C10)/BTEXN in Soil						
Our Reference:	UNITS	97800-102	97800-103	97800-104	97800-105	97800-106
Your Reference	----------	BH24	BH24	BH24	BH24	BH25
Depth	----------	0.6	1.3	1.3	2	0.2
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25	<25	<25
vTPHC$_6$ - 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	%	106	107	81	87	88

vTRH(C6-C10)/BTEXN in Soil				
Our Reference:	UNITS	97800-107	97800-108	97800-109
Your Reference	----------	BH25	BH25	BH25
Depth	----------	0.6	1.4	2.7
Date Sampled		16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	<25	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25	<25
vTPHC$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	89	81	81

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-5	97800-12	97800-16	97800-20	97800-45
Your Reference	----------	TP2	TP4	TP6	TP8	Bund - 8
Depth	----------	1.5	1.5	1.0	1.0	2.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	13/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	89	92	94	99	87

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-48	97800-49	97800-50	97800-54	97800-55
Your Reference	----------	Bund - 9	BH14	BH14	BH15	BH15
Depth	----------	3.5	2.4	3.5	2.0	5.0
Date Sampled		12/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	470	<100	<100	<100	<100
TRHC$_{29}$ - 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	1,200	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	970	<100	<100	<100	<100
Surrogate o-Terphenyl	%	115	92	89	86	83

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-61	97800-63	97800-64	97800-66	97800-67
Your Reference	----------	BH19	BH3-S	BH3	BH4	BH4
Depth	----------	0.1	Surface	0.5	0.3	1.4
Date Sampled		16/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	190	<100	<100	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	170	<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	310	<100	<100	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	114	88	88	82	83

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-68	97800-69	97800-75	97800-76	97800-77
Your Reference	----------	BH4	BH4	BH7-S	BH7	BH8
Depth	----------	2.2	4.5	Surface	0.5	0.3
Date Sampled		13/09/2013	13/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	82	80	83	84	86

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-78	97800-79	97800-80	97800-81	97800-82
Your Reference	----------	BH8	BH9	BH9	BH10	BH11
Depth	----------	0.6	0.3	1.2	0.8	1
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	<100	<100
TRHC$_{29}$ - 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
Surrogate o-Terphenyl	%	84	90	83	83	88

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-83	97800-84	97800-85	97800-86	97800-87
Your Reference	----------	BH11	BH12	BH13	BH14	BH14
Depth	----------	1.8	0.6	0.3	0.3	0.8
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	150	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	180	<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	280	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	82	85	84	93	85

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-88	97800-93	97800-94	97800-100	97800-101
Your Reference	----------	BH14	BH21	BH22	BH24-S	BH24-SA
Depth	----------	1.7	0.3	0.1	Surface	Surface
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50	70	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100	<100	570	220
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	<50	170	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	<50	170	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100	<100	520	230
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	86	86	90	#	133

svTRH (C10-C40) in Soil						
Our Reference:	UNITS	97800-102	97800-103	97800-104	97800-105	97800-106
Your Reference	----------	BH24	BH24	BH24	BH24	BH25
Depth	----------	0.6	1.3	1.3	2	0.2
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	240	470	180	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	590	1,100	1,900	770	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	110	560	1,100	400	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	110	560	1,100	400	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	540	800	1,300	550	150
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	#	#	#	#	102

svTRH (C10-C40) in Soil				
Our Reference:	UNITS	97800-107	97800-108	97800-109
Your Reference	----------	BH25	BH25	BH25
Depth	----------	0.6	1.4	2.7
Date Sampled		16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	100	160
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50	61
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50	61
TRH>C$_{16}$-C$_{34}$	mg/kg	110	<100	120
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	99	115	119

PAHs in Soil						
Our Reference:	UNITS	97800-1	97800-2	97800-3	97800-4	97800-5
Your Reference	----------	TP1	TP1	TP1	TP2	TP2
Depth	----------	0.5	1.5	3.0	0.5	1.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.7
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	0.7
Benzo(a)pyrene	mg/kg	0.06	0.07	<0.05	<0.05	0.44
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	<0.1	0.3
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	1
Total +ve PAH's	mg/kg	0.060	0.36	NIL (+)VE	NIL (+)VE	4.6
Surrogate p-Terphenyl-d14	%	107	99	103	98	103

PAHs in Soil						
Our Reference:	UNITS	97800-6	97800-7	97800-8	97800-9	97800-10
Your Reference	----------	TP2	TP2	TP3	TP3	TP3
Depth	----------	3.0	4.0	0.5	1.5	3.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Naphthalene	mg/kg	<0.1	<0.1	2.0	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	1.5	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	2.2	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	3.3	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	73	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	16	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	88	<0.1	0.1
Pyrene	mg/kg	0.1	<0.1	85	<0.1	0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	37	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	32	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	55	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.06	<0.05	37	0.05	0.08
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	19	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	3.6	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	19	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	53	<0.5	<0.5
Total +ve PAH's	mg/kg	0.28	NIL (+)VE	470	0.05	0.32
Surrogate p-Terphenyl-d14	%	109	100	127	100	103

PAHs in Soil						
Our Reference:	UNITS	97800-11	97800-12	97800-13	97800-14	97800-15
Your Reference	----------	TP4	TP4	TP4	TP5	TP5
Depth	----------	0.5	1.5	2.5	1.0	3.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.6	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.8	0.2	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.8	0.2	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.4	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.3	0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	0.5	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.35	0.11	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.2	<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	0.2	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	4.3	0.58	NIL (+)VE
Surrogate p-Terphenyl-d14	%	101	99	99	102	99

PAHs in Soil						
Our Reference:	UNITS	97800-16	97800-17	97800-18	97800-19	97800-20
Your Reference	----------	TP6	TP6	TP7	TP7	TP8
Depth	----------	1.0	3.0	1.0	3.0	1.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.3	0.1	0.1	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.8	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.7	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.4	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.4	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	0.7	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	0.07	0.46	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.3	<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	0.3	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	1	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.070	4.3	0.10	0.13	0.10
Surrogate p-Terphenyl-d14	%	99	100	98	103	113

PAHs in Soil						
Our Reference:	UNITS	97800-21	97800-22	97800-23	97800-24	97800-25
Your Reference	----------	TP8	TP9	TP11	TP12	TP12
Depth	----------	1.5	1.0	1.0	2.0	3.0
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.2	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	0.34	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	107	103	104	102	103

PAHs in Soil						
Our Reference:	UNITS	97800-26	97800-27	97800-28	97800-29	97800-30
Your Reference	----------	TP13	TP13a	TP13	TP14	TP14
Depth	----------	1.5	1.5	3.0	0.3	0.8
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	101	101	110	103

PAHs in Soil						
Our Reference:	UNITS	97800-31	97800-32	97800-33	97800-34	97800-35
Your Reference	----------	TP15	TP15	TP16	TP16	TP16
Depth	----------	0.5	1.0	0.5	1.5	3.0
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	100	99	102	100

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ---------- ----------	97800-36 Bund - 1 - 12/09/2013 Soil	97800-37 Bund - 2 - 12/09/2013 Soil	97800-38 Bund - 2a - 12/09/2013 Soil	97800-39 Bund - 3 - 12/09/2013 Soil	97800-40 Bund - 4 - 12/09/2013 Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.2	<0.1	0.1
Pyrene	mg/kg	<0.1	<0.1	0.3	<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	0.2	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.17	0.05	0.09
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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	1.5	0.20	0.37
Surrogate p-Terphenyl-d14	%	99	103	98	101	99

PAHs in Soil						
Our Reference:	UNITS	97800-41	97800-42	97800-43	97800-44	97800-45
Your Reference	----------	Bund - 5	Bund - 6	Bund - 7	Bund - 8	Bund - 8
Depth	----------	-	-	-	1.0	2.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.5	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.4	1.0	<0.1	<0.1
Pyrene	mg/kg	<0.1	0.4	1.0	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.2	0.5	<0.1	<0.1
Chrysene	mg/kg	<0.1	0.2	0.5	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	0.4	1.0	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.26	0.68	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.1	0.4	<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	0.2	0.4	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	1	<0.5	<0.5
Total +ve PAH's	mg/kg	0.10	2.4	6.4	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	100	101	98	109	101

PAHs in Soil						
Our Reference:	UNITS	97800-46	97800-47	97800-48	97800-49	97800-50
Your Reference	----------	Bund - 9	Bund - 9	Bund - 9	BH14	BH14
Depth	----------	1.0	2.5	3.5	2.4	3.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	0.7	<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	0.3	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	2.2	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	2.6	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	2.0	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	2.3	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	6.9	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	4.2	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	3.3	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.6	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	3.4	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	6.0	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	29	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	99	96	97	91	87

PAHs in Soil						
Our Reference:	UNITS	97800-51	97800-52	97800-53	97800-54	97800-55
Your Reference	----------	BH15	BH15	BH15	BH15	BH15
Depth	----------	0.3	0.5	1.0	2.0	5.0
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	88	89	89	91	92

PAHs in Soil						
Our Reference:	UNITS	97800-56	97800-57	97800-58	97800-59	97800-60
Your Reference	----------	BH16	BH16	BH17	BH17	BH18
Depth	----------	0.3	1.0	0.2	0.5	0.3
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	<0.1	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.17	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	92	91	91	91	93

PAHs in Soil						
Our Reference:	UNITS	97800-61	97800-62	97800-63	97800-64	97800-66
Your Reference	----------	BH19	BH1	BH3-S	BH3	BH4
Depth	----------	0.1	0.5	Surface	0.5	0.3
Date Sampled		16/09/2013	12/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.11	NIL (+)VE	0.11	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	91	92	93	93	91

PAHs in Soil						
Our Reference:	UNITS	97800-67	97800-68	97800-69	97800-70	97800-71
Your Reference	----------	BH4	BH4	BH4	BH5-S	BH5
Depth	----------	1.4	2.2	4.5	Surface	1.2
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	95	93	91	119	94

PAHs in Soil						
Our Reference:	UNITS	97800-72	97800-73	97800-74	97800-75	97800-76
Your Reference	----------	BH5	BH6	BH6-1A	BH7-S	BH7
Depth	----------	2.2	1	1	Surface	0.5
Date Sampled		13/09/2013	12/09/2013	12/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	90	101	89	92	93

PAHs in Soil						
Our Reference:	UNITS	97800-77	97800-78	97800-79	97800-80	97800-81
Your Reference	----------	BH8	BH8	BH9	BH9	BH10
Depth	----------	0.3	0.6	0.3	1.2	0.8
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.2	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	0.17	NIL (+)VE	NIL (+)VE
Surrogate p-Terphenyl-d14	%	91	91	93	93	92

PAHs in Soil						
Our Reference:	UNITS	97800-82	97800-83	97800-84	97800-85	97800-86
Your Reference	----------	BH11	BH11	BH12	BH13	BH14
Depth	----------	1	1.8	0.6	0.3	0.3
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.3
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.2
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	4.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.9
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	9.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	9.2
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	3.4
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	3.7
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	7.8
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	5.6
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	4.7
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	0.6
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	3.6
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	8.0
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	NIL (+)VE	NIL (+)VE	54
Surrogate p-Terphenyl-d14	%	92	92	91	95	94

PAHs in Soil						
Our Reference:	UNITS	97800-87	97800-88	97800-89	97800-90	97800-91
Your Reference	----------	BH14	BH14	S1	BH20-S	BH20
Depth	----------	0.8	1.7	Surface	Surface	0.4
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1	0.3	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.1	0.4	<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	0.2	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	0.3	<0.2
Benzo(a)pyrene	mg/kg	0.06	<0.05	0.06	0.17	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	0.2	<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	0.2	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.060	NIL (+)VE	0.52	2.1	NIL (+)VE
Surrogate p-Terphenyl-d14	%	97	94	97	95	94

PAHs in Soil						
Our Reference:	UNITS	97800-92	97800-93	97800-94	97800-95	97800-96
Your Reference	----------	BH20	BH21	BH22	BH22	BH22
Depth	----------	0.4	0.3	0.1	0.3	0.5
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.2	0.2	<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+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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	NIL (+)VE	0.25	0.22	NIL (+)VE
Surrogate p-Terphenyl-d14	%	96	96	95	95	95

PAHs in Soil						
Our Reference:	UNITS	97800-97	97800-98	97800-99	97800-100	97800-101
Your Reference	----------	BH22	BH23	BH23	BH24-S	BH24-SA
Depth	----------	0.8	Surface	0.3	Surface	Surface
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Naphthalene	mg/kg	<0.1	0.1	<0.1	2.1	0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	0.3	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.3	0.2	1.9	0.3
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.1	<0.1	0.4	<0.1
Pyrene	mg/kg	<0.1	0.1	<0.1	0.5	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Benzo(b+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	0.09	<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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	NIL (+)VE	0.75	0.20	5.7	0.41
Surrogate p-Terphenyl-d14	%	95	93	96	99	101

PAHs in Soil						
Our Reference:	UNITS	97800-102	97800-103	97800-104	97800-105	97800-106
Your Reference	----------	BH24	BH24	BH24	BH24	BH25
Depth	----------	0.6	1.3	1.3	2	0.2
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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	0.4	0.8	0.4	<0.1
Fluorene	mg/kg	<0.1	0.5	1.0	0.5	<0.1
Phenanthrene	mg/kg	0.2	0.4	0.9	0.4	0.3
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.3	0.6	0.3	<0.1
Pyrene	mg/kg	<0.1	0.7	1.2	0.6	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+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.05	0.07	<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
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.34	2.6	5.0	2.3	0.47
Surrogate p-Terphenyl-d14	%	100	101	109	100	98

PAHs in Soil				
Our Reference:	UNITS	97800-107	97800-108	97800-109
Your Reference	----------	BH25	BH25	BH25
Depth	----------	0.6	1.4	2.7
Date Sampled		16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1
Pyrene	mg/kg	<0.1	<0.1	0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5	<0.5
Total +ve PAH's	mg/kg	0.10	NIL (+)VE	0.22
Surrogate p-Terphenyl-d14	%	96	98	95

Organochlorine Pesticides in soil					
Our Reference:	UNITS	97800-48	97800-61	97800-63	97800-84
Your Reference	----------	Bund - 9	BH19	BH3-S	BH12
Depth	----------	3.5	0.1	Surface	0.6
Date Sampled		12/09/2013	16/09/2013	13/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013
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
Surrogate TCMX	%	94	120	129	120

Organophosphorus Pesticides					
Our Reference:	UNITS	97800-48	97800-61	97800-63	97800-84
Your Reference	----------	Bund - 9	BH19	BH3-S	BH12
Depth	----------	3.5	0.1	Surface	0.6
Date Sampled		12/09/2013	16/09/2013	13/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	94	120	129	120

PCBs in Soil					
Our Reference:	UNITS	97800-48	97800-61	97800-63	97800-84
Your Reference	----------	Bund - 9	BH19	BH3-S	BH12
Depth	----------	3.5	0.1	Surface	0.6
Date Sampled		12/09/2013	16/09/2013	13/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	94	120	129	120

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-1	97800-2	97800-3	97800-4	97800-5
Your Reference	----------	TP1	TP1	TP1	TP2	TP2
Depth	----------	0.5	1.5	3.0	0.5	1.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	6	5	16	6	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	4	16	20	8	9
Copper	mg/kg	74	32	13	37	33
Lead	mg/kg	8	68	55	17	82
Mercury	mg/kg	0.1	0.1	<0.1	<0.1	0.4
Nickel	mg/kg	4	9	3	21	11
Zinc	mg/kg	19	100	32	79	90

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-6	97800-7	97800-8	97800-9	97800-10
Your Reference	----------	TP2	TP2	TP3	TP3	TP3
Depth	----------	3.0	4.0	0.5	1.5	3.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	13	7	6	6	6
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	16	19	11	16	11
Copper	mg/kg	11	30	43	43	30
Lead	mg/kg	28	75	120	25	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	12	18	34	17
Zinc	mg/kg	19	150	110	75	70

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-11	97800-12	97800-13	97800-14	97800-15
Your Reference	----------	TP4	TP4	TP4	TP5	TP5
Depth	----------	0.5	1.5	2.5	1.0	3.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	5	9	6	6	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	11	10	24	7
Copper	mg/kg	31	41	33	23	37
Lead	mg/kg	17	22	72	68	18
Mercury	mg/kg	<0.1	<0.1	0.1	0.1	<0.1
Nickel	mg/kg	18	23	16	12	14
Zinc	mg/kg	71	77	140	74	72

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-16	97800-17	97800-18	97800-19	97800-20
Your Reference	----------	TP6	TP6	TP7	TP7	TP8
Depth	----------	1.0	3.0	1.0	3.0	1.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	8	6	6	14	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	12	8	10	14
Copper	mg/kg	32	27	34	42	32
Lead	mg/kg	24	74	17	17	18
Mercury	mg/kg	<0.1	0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	11	18	18	18
Zinc	mg/kg	62	98	76	66	73

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-21	97800-22	97800-23	97800-24	97800-25
Your Reference	----------	TP8	TP9	TP11	TP12	TP12
Depth	----------	1.5	1.0	1.0	2.0	3.0
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	10	10	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	17	10	11	12
Copper	mg/kg	44	20	42	21	37
Lead	mg/kg	17	14	17	14	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	19	16	17	10	21
Zinc	mg/kg	68	49	72	48	93

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-26	97800-27	97800-28	97800-29	97800-30
Your Reference	----------	TP13	TP13a	TP13	TP14	TP14
Depth	----------	1.5	1.5	3.0	0.3	0.8
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	7	6	13	5	<4
Cadmium	mg/kg	0.5	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	6	6	10	10	7
Copper	mg/kg	3	4	23	12	18
Lead	mg/kg	5	5	10	16	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	4	3	3	5	2
Zinc	mg/kg	6	7	16	19	10

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-31	97800-32	97800-33	97800-34	97800-35
Your Reference	----------	TP15	TP15	TP16	TP16	TP16
Depth	----------	0.5	1.0	0.5	1.5	3.0
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	11	9	11	6	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	22	18	23	8	11
Copper	mg/kg	20	18	21	35	37
Lead	mg/kg	26	21	22	15	22
Mercury	mg/kg	<0.1	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	9	10	11	8	29
Zinc	mg/kg	41	43	34	42	100

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-36	97800-37	97800-38	97800-39	97800-40
Your Reference	----------	Bund - 1	Bund - 2	Bund - 2a	Bund - 3	Bund - 4
Depth	----------	-	-	-	-	-
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	5	6	5	<4	13
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	12	12	12	8	12
Copper	mg/kg	43	24	23	28	43
Lead	mg/kg	21	20	24	18	24
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Nickel	mg/kg	21	10	12	17	15
Zinc	mg/kg	71	37	46	56	100

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-41	97800-42	97800-43	97800-44	97800-45
Your Reference	----------	Bund - 5	Bund - 6	Bund - 7	Bund - 8	Bund - 8
Depth	----------	-	-	-	1.0	2.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	6	7	5	8	9
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	7	11	18	25	28
Copper	mg/kg	42	19	48	15	15
Lead	mg/kg	16	53	43	25	26
Mercury	mg/kg	<0.1	0.1	0.1	<0.1	0.1
Nickel	mg/kg	19	11	25	7	7
Zinc	mg/kg	50	66	78	17	20

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-46	97800-47	97800-48	97800-49	97800-50
Your Reference	----------	Bund - 9	Bund - 9	Bund - 9	BH14	BH14
Depth	----------	1.0	2.5	3.5	2.4	3.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	9	8	7	7	14
Cadmium	mg/kg	<0.4	<0.4	1.0	<0.4	<0.4
Chromium	mg/kg	27	27	15	20	17
Copper	mg/kg	13	15	45	29	24
Lead	mg/kg	25	26	130	19	10
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	mg/kg	7	8	9	18	6
Zinc	mg/kg	17	21	310	59	34

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-51	97800-52	97800-53	97800-54	97800-55
Your Reference	----------	BH15	BH15	BH15	BH15	BH15
Depth	----------	0.3	0.5	1.0	2.0	5.0
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	6	9	6	6	7
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	15	22	11	17	19
Copper	mg/kg	14	34	48	37	16
Lead	mg/kg	5	21	18	17	14
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	19	18	14	7
Zinc	mg/kg	16	65	67	58	23

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-56	97800-57	97800-58	97800-59	97800-60
Your Reference	----------	BH16	BH16	BH17	BH17	BH18
Depth	----------	0.3	1.0	0.2	0.5	0.3
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	5	5	<4	6	<4
Cadmium	mg/kg	<0.4	0.5	<0.4	<0.4	<0.4
Chromium	mg/kg	18	7	7	15	10
Copper	mg/kg	36	44	4	37	43
Lead	mg/kg	18	26	9	17	13
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	22	27	5	15	11
Zinc	mg/kg	54	53	18	61	55

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-61	97800-62	97800-63	97800-64	97800-66
Your Reference	----------	BH19	BH1	BH3-S	BH3	BH4
Depth	----------	0.1	0.5	Surface	0.5	0.3
Date Sampled		16/09/2013	12/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	9	<4	9	5	13
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	13	12	33	17	21
Copper	mg/kg	29	37	33	15	30
Lead	mg/kg	12	17	19	13	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	12	7	26	4	21
Zinc	mg/kg	160	38	130	19	62

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-67	97800-68	97800-69	97800-70	97800-71
Your Reference	----------	BH4	BH4	BH4	BH5-S	BH5
Depth	----------	1.4	2.2	4.5	Surface	1.2
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	8	11	17	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	37	18	23	170	250
Copper	mg/kg	26	23	16	27	40
Lead	mg/kg	16	14	27	9	6
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	31	8	9	130	180
Zinc	mg/kg	46	25	28	30	59

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-72	97800-73	97800-74	97800-75	97800-76
Your Reference	----------	BH5	BH6	BH6-1A	BH7-S	BH7
Depth	----------	2.2	1	1	Surface	0.5
Date Sampled		13/09/2013	12/09/2013	12/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	<4	<4	26	9	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	210	8	6	29	14
Copper	mg/kg	36	19	12	18	27
Lead	mg/kg	6	11	10	16	24
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	150	4	3	11	7
Zinc	mg/kg	47	16	11	30	43

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-77	97800-78	97800-79	97800-80	97800-81
Your Reference	----------	BH8	BH8	BH9	BH9	BH10
Depth	----------	0.3	0.6	0.3	1.2	0.8
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	<4	6	6	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	34	20	10	15	8
Copper	mg/kg	14	33	39	32	19
Lead	mg/kg	7	15	16	16	9
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	27	17	32	10	4
Zinc	mg/kg	28	49	65	42	20

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-82	97800-83	97800-84	97800-85	97800-86
Your Reference	----------	BH11	BH11	BH12	BH13	BH14
Depth	----------	1	1.8	0.6	0.3	0.3
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	<4	<4	<4	<4	4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	25	13	32	99	21
Copper	mg/kg	25	25	42	28	22
Lead	mg/kg	15	16	16	29	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	21	7	28	65	20
Zinc	mg/kg	41	27	62	80	53

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-87	97800-88	97800-89	97800-90	97800-91
Your Reference	----------	BH14	BH14	S1	BH20-S	BH20
Depth	----------	0.8	1.7	Surface	Surface	0.4
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	9	6	8	13	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	20	16	17	12	9
Copper	mg/kg	29	30	44	63	43
Lead	mg/kg	20	21	16	25	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	15	22	24	24	17
Zinc	mg/kg	52	56	58	72	52

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-92	97800-93	97800-94	97800-95	97800-96
Your Reference	----------	BH20	BH21	BH22	BH22	BH22
Depth	----------	0.4	0.3	0.1	0.3	0.5
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	<4	<4	7	7	8
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	8	13	9	10	14
Copper	mg/kg	40	49	37	36	36
Lead	mg/kg	14	15	18	17	16
Mercury	mg/kg	<0.1	<0.1	<0.1	0.2	<0.1
Nickel	mg/kg	14	20	16	15	16
Zinc	mg/kg	55	51	73	64	59

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-97	97800-98	97800-99	97800-100	97800-101
Your Reference	----------	BH22	BH23	BH23	BH24-S	BH24-SA
Depth	----------	0.8	Surface	0.3	Surface	Surface
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	<4	11	5	7	6
Cadmium	mg/kg	<0.4	0.6	<0.4	<0.4	<0.4
Chromium	mg/kg	6	24	22	20	17
Copper	mg/kg	34	49	22	22	20
Lead	mg/kg	6	16	12	15	11
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	5	24	21	18	15
Zinc	mg/kg	31	87	130	89	98

Acid Extractable metals in soil						
Our Reference:	UNITS	97800-102	97800-103	97800-104	97800-105	97800-106
Your Reference	----------	BH24	BH24	BH24	BH24	BH25
Depth	----------	0.6	1.3	1.3	2	0.2
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	<4	4	5	8	5
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	14	16	13	17	13
Copper	mg/kg	17	30	27	29	38
Lead	mg/kg	6	14	13	17	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	17	16	19	19
Zinc	mg/kg	70	73	77	110	73

Acid Extractable metals in soil				
Our Reference:	UNITS	97800-107	97800-108	97800-109
Your Reference	----------	BH25	BH25	BH25
Depth	----------	0.6	1.4	2.7
Date Sampled		16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil
Date digested	-	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	23/09/2013	23/09/2013	23/09/2013
Arsenic	mg/kg	5	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	19	12	11
Copper	mg/kg	35	18	19
Lead	mg/kg	17	11	11
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	23	7	10
Zinc	mg/kg	76	32	44

Moisture						
Our Reference:	UNITS	97800-1	97800-2	97800-3	97800-4	97800-5
Your Reference	----------	TP1	TP1	TP1	TP2	TP2
Depth	----------	0.5	1.5	3.0	0.5	1.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	6.8	21	23	12	13

Moisture						
Our Reference:	UNITS	97800-6	97800-7	97800-8	97800-9	97800-10
Your Reference	----------	TP2	TP2	TP3	TP3	TP3
Depth	----------	3.0	4.0	0.5	1.5	3.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	18	16	9.3	14	17

Moisture						
Our Reference:	UNITS	97800-11	97800-12	97800-13	97800-14	97800-15
Your Reference	----------	TP4	TP4	TP4	TP5	TP5
Depth	----------	0.5	1.5	2.5	1.0	3.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	8.6	12	17	21	17

Moisture						
Our Reference:	UNITS	97800-16	97800-17	97800-18	97800-19	97800-20
Your Reference	----------	TP6	TP6	TP7	TP7	TP8
Depth	----------	1.0	3.0	1.0	3.0	1.0
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	19	12	9.8	8.9	14

Moisture						
Our Reference:	UNITS	97800-21	97800-22	97800-23	97800-24	97800-25
Your Reference	----------	TP8	TP9	TP11	TP12	TP12
Depth	----------	1.5	1.0	1.0	2.0	3.0
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	12	10	6.7	12	11

Moisture						
Our Reference:	UNITS	97800-26	97800-27	97800-28	97800-29	97800-30
Your Reference	----------	TP13	TP13a	TP13	TP14	TP14
Depth	----------	1.5	1.5	3.0	0.3	0.8
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	4.5	4.1	13	9.4	14

Moisture						
Our Reference:	UNITS	97800-31	97800-32	97800-33	97800-34	97800-35
Your Reference	----------	TP15	TP15	TP16	TP16	TP16
Depth	----------	0.5	1.0	0.5	1.5	3.0
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	15	16	13	12	8.9

Moisture						
Our Reference:	UNITS	97800-36	97800-37	97800-38	97800-39	97800-40
Your Reference	----------	Bund - 1	Bund - 2	Bund - 2a	Bund - 3	Bund - 4
Depth	----------	-	-	-	-	-
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	9.9	12	12	8.0	15

Moisture						
Our Reference:	UNITS	97800-41	97800-42	97800-43	97800-44	97800-45
Your Reference	----------	Bund - 5	Bund - 6	Bund - 7	Bund - 8	Bund - 8
Depth	----------	-	-	-	1.0	2.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	13	7.9	8.9	17	20

Moisture						
Our Reference:	UNITS	97800-46	97800-47	97800-48	97800-49	97800-50
Your Reference	----------	Bund - 9	Bund - 9	Bund - 9	BH14	BH14
Depth	----------	1.0	2.5	3.5	2.4	3.5
Date Sampled		12/09/2013	12/09/2013	12/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	15	20	13	22	19

Moisture						
Our Reference:	UNITS	97800-51	97800-52	97800-53	97800-54	97800-55
Your Reference	----------	BH15	BH15	BH15	BH15	BH15
Depth	----------	0.3	0.5	1.0	2.0	5.0
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	7.0	12	15	17	19

Moisture						
Our Reference:	UNITS	97800-56	97800-57	97800-58	97800-59	97800-60
Your Reference	----------	BH16	BH16	BH17	BH17	BH18
Depth	----------	0.3	1.0	0.2	0.5	0.3
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	7.6	12	9.6	17	10

Moisture						
Our Reference:	UNITS	97800-61	97800-62	97800-63	97800-64	97800-66
Your Reference	----------	BH19	BH1	BH3-S	BH3	BH4
Depth	----------	0.1	0.5	Surface	0.5	0.3
Date Sampled		16/09/2013	12/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	5.5	13	11	15	9.5

Moisture						
Our Reference:	UNITS	97800-67	97800-68	97800-69	97800-70	97800-71
Your Reference	----------	BH4	BH4	BH4	BH5-S	BH5
Depth	----------	1.4	2.2	4.5	Surface	1.2
Date Sampled		13/09/2013	13/09/2013	13/09/2013	13/09/2013	13/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	18	21	14	28	15

Moisture						
Our Reference:	UNITS	97800-72	97800-73	97800-74	97800-75	97800-76
Your Reference	----------	BH5	BH6	BH6-1A	BH7-S	BH7
Depth	----------	2.2	1	1	Surface	0.5
Date Sampled		13/09/2013	12/09/2013	12/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	12	19	15	11	16

Moisture						
Our Reference:	UNITS	97800-77	97800-78	97800-79	97800-80	97800-81
Your Reference	----------	BH8	BH8	BH9	BH9	BH10
Depth	----------	0.3	0.6	0.3	1.2	0.8
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	14	18	16	20	19

Moisture						
Our Reference:	UNITS	97800-82	97800-83	97800-84	97800-85	97800-86
Your Reference	----------	BH11	BH11	BH12	BH13	BH14
Depth	----------	1	1.8	0.6	0.3	0.3
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	14	16	11	6.8	6.8

Moisture						
Our Reference:	UNITS	97800-87	97800-88	97800-89	97800-90	97800-91
Your Reference	----------	BH14	BH14	S1	BH20-S	BH20
Depth	----------	0.8	1.7	Surface	Surface	0.4
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	20	21	5.5	6.9	12

Moisture						
Our Reference:	UNITS	97800-92	97800-93	97800-94	97800-95	97800-96
Your Reference	----------	BH20	BH21	BH22	BH22	BH22
Depth	----------	0.4	0.3	0.1	0.3	0.5
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	12	8.5	20	16	15

Moisture						
Our Reference:	UNITS	97800-97	97800-98	97800-99	97800-100	97800-101
Your Reference	----------	BH22	BH23	BH23	BH24-S	BH24-SA
Depth	----------	0.8	Surface	0.3	Surface	Surface
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	12	6.3	8.1	10	9.5

Moisture						
Our Reference:	UNITS	97800-102	97800-103	97800-104	97800-105	97800-106
Your Reference	----------	BH24	BH24	BH24	BH24	BH25
Depth	----------	0.6	1.3	1.3	2	0.2
Date Sampled		16/09/2013	16/09/2013	16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013	24/09/2013	24/09/2013
Moisture	%	7.3	15	15	16	15

Moisture				
Our Reference:	UNITS	97800-107	97800-108	97800-109
Your Reference	----------	BH25	BH25	BH25
Depth	----------	0.6	1.4	2.7
Date Sampled		16/09/2013	16/09/2013	16/09/2013
Type of sample		Soil	Soil	Soil
Date prepared	-	23/09/2013	23/09/2013	23/09/2013
Date analysed	-	24/09/2013	24/09/2013	24/09/2013
Moisture	%	13	19	22

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.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-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 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97800-5	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-			23/09/2013	97800-5	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	97800-5	<25 || <25	LCS-6	92%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	97800-5	<25 || <25	LCS-6	92%
Benzene	mg/kg	0.2	Org-016	<0.2	97800-5	<0.2 || <0.2	LCS-6	70%
Toluene	mg/kg	0.5	Org-016	<0.5	97800-5	<0.5 || <0.5	LCS-6	92%
Ethylbenzene	mg/kg	1	Org-016	<1	97800-5	<1 || <1	LCS-6	99%
m+p-xylene	mg/kg	2	Org-016	<2	97800-5	<2 || <2	LCS-6	100%
o-Xylene	mg/kg	1	Org-016	<1	97800-5	<1 || <1	LCS-6	100%
naphthalene	mg/kg	1	Org-014	<1	97800-5	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	87	97800-5	78 || 77 || RPD: 1	LCS-6	80%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97800-5	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-			24/09/2013	97800-5	24/09/2013 || 24/09/2013	LCS-6	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	97800-5	<50 || <50	LCS-6	109%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	97800-5	<100 || <100	LCS-6	113%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	97800-5	<100 || <100	LCS-6	122%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	97800-5	<50 || <50	LCS-6	109%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	97800-5	<100 || <100	LCS-6	113%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	97800-5	<100 || <100	LCS-6	122%
Surrogate o-Terphenyl	%		Org-003	85	97800-5	89 || 91 || RPD: 2	LCS-6	93%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97800-5	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-			24/09/2013	97800-5	24/09/2013 || 24/09/2013	LCS-6	24/09/2013
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	<0.1 || <0.1	LCS-6	110%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	<0.1 || <0.1	LCS-6	109%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.5 || 0.2 || RPD: 86	LCS-6	98%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.8 || 0.4 || RPD: 67	LCS-6	95%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.7 || 0.4 || RPD: 55	LCS-6	120%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.3 || 0.2 || RPD: 40	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.3 || 0.2 || RPD: 40	LCS-6	94%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	97800-5	0.7 || 0.5 || RPD: 33	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	97800-5	0.44 || 0.28 || RPD: 44	LCS-6	96%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.3 || 0.2 || RPD: 40	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	97800-5	0.3 || 0.2 || RPD: 40	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	99	97800-5	103 || 105 || RPD: 2	LCS-6	94%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97800-61	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-			24/09/2013	97800-61	24/09/2013 || 24/09/2013	LCS-6	24/09/2013
HCB	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	113%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	108%
Heptachlor	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	110%
delta-BHC	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	113%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	111%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	107%
Dieldrin	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	111%
Endrin	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	84%
pp-DDD	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	117%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	LCS-6	103%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Surrogate TCMX	%		Org-005	96	97800-61	120 || 114 || RPD: 5	LCS-6	95%

QUALITY CONTROL Organophosphorus Pesticides	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97800-61	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-			24/09/2013	97800-61	24/09/2013 || 24/09/2013	LCS-6	24/09/2013
Diazinon	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	LCS-6	94%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	LCS-6	137%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	97800-61	<0.1 || <0.1	LCS-6	112%
Surrogate TCMX	%		Org-008	96	97800-61	120 || 114 || RPD: 5	LCS-6	91%
QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			23/09/2013	97800-61	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-			24/09/2013	97800-61	24/09/2013 || 24/09/2013	LCS-6	24/09/2013
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	LCS-6	122%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	97800-61	<0.1 || <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	96	97800-61	120 || 114 || RPD: 5	LCS-6	125%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date digested	-			23/09/2013	97800-5	23/09/2013 || 23/09/2013	LCS-1	23/09/2013
Date analysed	-			23/09/2013	97800-5	23/09/2013 || 23/09/2013	LCS-1	23/09/2013
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	97800-5	6 || 7 || RPD: 15	LCS-1	99%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	97800-5	<0.4 || <0.4	LCS-1	99%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	97800-5	9 || 12 || RPD: 29	LCS-1	102%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	97800-5	33 || 27 || RPD: 20	LCS-1	103%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	97800-5	82 || 72 || RPD: 13	LCS-1	100%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	97800-5	0.4 || 0.3 || RPD: 29	LCS-1	98%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	97800-5	11 || 9 || RPD: 20	LCS-1	103%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	97800-5	90 || 77 || RPD: 16	LCS-1	101%

QUALITY CONTROL Moisture	UNITS	PQL	METHOD	Blank
Date prepared	-			[NT]
Date analysed	-			[NT]
Moisture	%	0.1	Inorg-008	[NT]

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-49	23/09/2013 || 23/09/2013	LCS-7	23/09/2013
Date analysed	-	97800-49	23/09/2013 || 23/09/2013	LCS-7	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	97800-49	<25 || <25	LCS-7	101%
TRHC$_6$ - C$_{10}$	mg/kg	97800-49	<25 || <25	LCS-7	101%
Benzene	mg/kg	97800-49	<0.2 || <0.2	LCS-7	79%
Toluene	mg/kg	97800-49	<0.5 || <0.5	LCS-7	99%
Ethylbenzene	mg/kg	97800-49	<1 || <1	LCS-7	105%
m+p-xylene	mg/kg	97800-49	<2 || <2	LCS-7	110%
o-Xylene	mg/kg	97800-49	<1 || <1	LCS-7	111%
naphthalene	mg/kg	97800-49	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97800-49	77 || 85 || RPD: 10	LCS-7	99%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-49	23/09/2013 || 23/09/2013	LCS-7	23/09/2013
Date analysed	-	97800-49	24/09/2013 || 24/09/2013	LCS-7	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97800-49	<50 || <50	LCS-7	109%
TRHC$_{15}$ - C$_{28}$	mg/kg	97800-49	<100 || <100	LCS-7	114%
TRHC$_{29}$ - C$_{36}$	mg/kg	97800-49	<100 || <100	LCS-7	112%
TRH>C$_{10}$-C$_{16}$	mg/kg	97800-49	<50 || <50	LCS-7	109%
TRH>C$_{16}$-C$_{34}$	mg/kg	97800-49	<100 || <100	LCS-7	114%
TRH>C$_{34}$-C$_{40}$	mg/kg	97800-49	<100 || <100	LCS-7	112%
Surrogate o-Terphenyl	%	97800-49	92 || 90 || RPD: 2	LCS-7	95%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-19	23/09/2013 || 23/09/2013	LCS-7	23/09/2013
Date analysed	-	97800-19	24/09/2013 || 24/09/2013	LCS-7	24/09/2013
Naphthalene	mg/kg	97800-19	<0.1 || <0.1	LCS-7	115%
Acenaphthylene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-19	<0.1 || <0.1	LCS-7	113%
Phenanthrene	mg/kg	97800-19	0.1 || 0.2 || RPD: 67	LCS-7	102%
Anthracene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-19	<0.1 || <0.1	LCS-7	98%
Pyrene	mg/kg	97800-19	<0.1 || <0.1	LCS-7	125%
Benzo(a)anthracene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-19	<0.1 || <0.1	LCS-7	98%
Benzo(b+k)fluoranthene	mg/kg	97800-19	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-19	<0.05 || <0.05	LCS-7	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-19	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-19	103 || 103 || RPD: 0	LCS-7	96%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-63	23/09/2013
Date analysed	-	[NT]	[NT]	97800-63	24/09/2013
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	97800-63	103%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	97800-63	101%
Heptachlor	mg/kg	[NT]	[NT]	97800-63	102%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	97800-63	104%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	97800-63	104%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	97800-63	103%
Dieldrin	mg/kg	[NT]	[NT]	97800-63	107%
Endrin	mg/kg	[NT]	[NT]	97800-63	76%
pp-DDD	mg/kg	[NT]	[NT]	97800-63	92%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	97800-63	110%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%	[NT]	[NT]	97800-63	101%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-63	23/09/2013
Date analysed	-	[NT]	[NT]	97800-63	24/09/2013
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	97800-63	87%
Fenitrothion	mg/kg	[NT]	[NT]	97800-63	129%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	97800-63	119%
Surrogate TCMX	%	[NT]	[NT]	97800-63	110%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-63	23/09/2013
Date analysed	-	[NT]	[NT]	97800-63	24/09/2013
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	97800-63	122%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	97800-63	123%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-19	23/09/2013 || 23/09/2013	LCS-2	23/09/2013
Date analysed	-	97800-19	23/09/2013 || 23/09/2013	LCS-2	23/09/2013
Arsenic	mg/kg	97800-19	14 || 6 || RPD: 80	LCS-2	95%
Cadmium	mg/kg	97800-19	<0.4 || <0.4	LCS-2	96%
Chromium	mg/kg	97800-19	10 || 10 || RPD: 0	LCS-2	100%
Copper	mg/kg	97800-19	42 || 42 || RPD: 0	LCS-2	101%
Lead	mg/kg	97800-19	17 || 20 || RPD: 16	LCS-2	98%
Mercury	mg/kg	97800-19	<0.1 || <0.1	LCS-2	94%
Nickel	mg/kg	97800-19	18 || 19 || RPD: 5	LCS-2	101%
Zinc	mg/kg	97800-19	66 || 70 || RPD: 6	LCS-2	99%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-61	23/09/2013 || 23/09/2013	LCS-8	23/09/2013
Date analysed	-	97800-61	23/09/2013 || 23/09/2013	LCS-8	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	97800-61	<25 || <25	LCS-8	94%
TRHC$_6$ - C$_{10}$	mg/kg	97800-61	<25 || <25	LCS-8	94%
Benzene	mg/kg	97800-61	<0.2 || <0.2	LCS-8	72%
Toluene	mg/kg	97800-61	<0.5 || <0.5	LCS-8	94%
Ethylbenzene	mg/kg	97800-61	<1 || <1	LCS-8	100%
m+p-xylene	mg/kg	97800-61	<2 || <2	LCS-8	102%
o-Xylene	mg/kg	97800-61	<1 || <1	LCS-8	102%
naphthalene	mg/kg	97800-61	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97800-61	78 || 78 || RPD: 0	LCS-8	82%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-61	23/09/2013 || 23/09/2013	LCS-8	23/09/2013
Date analysed	-	97800-61	24/09/2013 || 24/09/2013	LCS-8	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97800-61	<50 || <50	LCS-8	109%
TRHC$_{15}$ - C$_{28}$	mg/kg	97800-61	190 || 190 || RPD: 0	LCS-8	112%
TRHC$_{29}$ - C$_{36}$	mg/kg	97800-61	170 || 170 || RPD: 0	LCS-8	117%
TRH>C$_{10}$-C$_{16}$	mg/kg	97800-61	<50 || <50	LCS-8	109%
TRH>C$_{16}$-C$_{34}$	mg/kg	97800-61	310 || 310 || RPD: 0	LCS-8	112%
TRH>C$_{34}$-C$_{40}$	mg/kg	97800-61	<100 || <100	LCS-8	117%
Surrogate o-Terphenyl	%	97800-61	114 || 117 || RPD: 3	LCS-8	93%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-22	23/09/2013 || 23/09/2013	LCS-8	23/09/2013
Date analysed	-	97800-22	24/09/2013 || 24/09/2013	LCS-8	24/09/2013
Naphthalene	mg/kg	97800-22	<0.1 || <0.1	LCS-8	114%
Acenaphthylene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-22	<0.1 || <0.1	LCS-8	113%
Phenanthrene	mg/kg	97800-22	<0.1 || <0.1	LCS-8	102%
Anthracene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-22	<0.1 || <0.1	LCS-8	99%
Pyrene	mg/kg	97800-22	<0.1 || <0.1	LCS-8	126%
Benzo(a)anthracene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-22	<0.1 || <0.1	LCS-8	98%
Benzo(b+k)fluoranthene	mg/kg	97800-22	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-22	<0.05 || <0.05	LCS-8	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	97800-22	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-22	103 || 99 || RPD: 4	LCS-8	96%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-22	23/09/2013 || 23/09/2013	LCS-3	23/09/2013
Date analysed	-	97800-22	23/09/2013 || 23/09/2013	LCS-3	23/09/2013
Arsenic	mg/kg	97800-22	10 || 12 || RPD: 18	LCS-3	100%
Cadmium	mg/kg	97800-22	<0.4 || <0.4	LCS-3	100%
Chromium	mg/kg	97800-22	17 || 21 || RPD: 21	LCS-3	104%
Copper	mg/kg	97800-22	20 || 30 || RPD: 40	LCS-3	105%
Lead	mg/kg	97800-22	14 || 15 || RPD: 7	LCS-3	101%
Mercury	mg/kg	97800-22	<0.1 || <0.1	LCS-3	92%
Nickel	mg/kg	97800-22	16 || 21 || RPD: 27	LCS-3	104%
Zinc	mg/kg	97800-22	49 || 71 || RPD: 37	LCS-3	102%
QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-78	23/09/2013 || 23/09/2013	97800-12	23/09/2013
Date analysed	-	97800-78	23/09/2013 || 23/09/2013	97800-12	24/09/2013
$TRHC_6$ - C_9	mg/kg	97800-78	<25 || <25	97800-12	81%
$TRHC_6$ - C_{10}	mg/kg	97800-78	<25 || <25	97800-12	81%
Benzene	mg/kg	97800-78	<0.2 || <0.2	97800-12	64%
Toluene	mg/kg	97800-78	<0.5 || <0.5	97800-12	80%
Ethylbenzene	mg/kg	97800-78	<1 || <1	97800-12	87%
m+p-xylene	mg/kg	97800-78	<2 || <2	97800-12	87%
o-Xylene	mg/kg	97800-78	<1 || <1	97800-12	88%
naphthalene	mg/kg	97800-78	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97800-78	96 || 91 || RPD: 5	97800-12	71%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-78	23/09/2013 || 23/09/2013	97800-12	23/09/2013
Date analysed	-	97800-78	24/09/2013 || 24/09/2013	97800-12	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	97800-78	<50 || <50	97800-12	116%
TRHC$_{15}$ - C$_{28}$	mg/kg	97800-78	<100 || <100	97800-12	122%
TRHC$_{29}$ - C$_{36}$	mg/kg	97800-78	<100 || <100	97800-12	115%
TRH>C$_{10}$-C$_{16}$	mg/kg	97800-78	<50 || <50	97800-12	116%
TRH>C$_{16}$-C$_{34}$	mg/kg	97800-78	<100 || <100	97800-12	122%
TRH>C$_{34}$-C$_{40}$	mg/kg	97800-78	<100 || <100	97800-12	115%
Surrogate o-Terphenyl	%	97800-78	84 || 83 || RPD: 1	97800-12	117%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-32	23/09/2013 || 23/09/2013	LCS-9	23/09/2013
Date analysed	-	97800-32	24/09/2013 || 24/09/2013	LCS-9	24/09/2013
Naphthalene	mg/kg	97800-32	<0.1 || <0.1	LCS-9	120%
Acenaphthylene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-32	<0.1 || <0.1	LCS-9	120%
Phenanthrene	mg/kg	97800-32	<0.1 || <0.1	LCS-9	108%
Anthracene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-32	<0.1 || <0.1	LCS-9	103%
Pyrene	mg/kg	97800-32	<0.1 || <0.1	LCS-9	130%
Benzo(a)anthracene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-32	<0.1 || <0.1	LCS-9	92%
Benzo(b+k)fluoranthene	mg/kg	97800-32	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-32	<0.05 || <0.05	LCS-9	87%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-32	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-32	100 || 99 || RPD: 1	LCS-9	90%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-32	23/09/2013 || 23/09/2013	LCS-4	23/09/2013
Date analysed	-	97800-32	23/09/2013 || 23/09/2013	LCS-4	23/09/2013
Arsenic	mg/kg	97800-32	9 || 9 || RPD: 0	LCS-4	96%
Cadmium	mg/kg	97800-32	<0.4 || <0.4	LCS-4	96%
Chromium	mg/kg	97800-32	18 || 19 || RPD: 5	LCS-4	101%
Copper	mg/kg	97800-32	18 || 19 || RPD: 5	LCS-4	102%
Lead	mg/kg	97800-32	21 || 23 || RPD: 9	LCS-4	97%
Mercury	mg/kg	97800-32	<0.1 || <0.1	LCS-4	91%
Nickel	mg/kg	97800-32	10 || 10 || RPD: 0	LCS-4	101%
Zinc	mg/kg	97800-32	43 || 42 || RPD: 2	LCS-4	99%
QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-100	23/09/2013 || 23/09/2013	97800-63	23/09/2013
Date analysed	-	97800-100	23/09/2013 || 23/09/2013	97800-63	24/09/2013
$TRHC_6$ - C_9	mg/kg	97800-100	<25 || <25	97800-63	86%
$TRHC_6$ - C_{10}	mg/kg	97800-100	<25 || <25	97800-63	86%
Benzene	mg/kg	97800-100	<0.2 || <0.2	97800-63	67%
Toluene	mg/kg	97800-100	<0.5 || <0.5	97800-63	85%
Ethylbenzene	mg/kg	97800-100	<1 || <1	97800-63	91%
m+p-xylene	mg/kg	97800-100	<2 || <2	97800-63	93%
o-Xylene	mg/kg	97800-100	<1 || <1	97800-63	92%
naphthalene	mg/kg	97800-100	<1 || <1	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	97800-100	103 || 101 || RPD: 2	97800-63	76%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-100	23/09/2013 || 23/09/2013	97800-63	23/09/2013
Date analysed	-	97800-100	24/09/2013 || 24/09/2013	97800-63	24/09/2013
$TRHC_{10}$ - C_{14}	mg/kg	97800-100	70 || 70 || RPD: 0	97800-63	106%
$TRHC_{15}$ - C_{28}	mg/kg	97800-100	570 || 610 || RPD: 7	97800-63	113%
$TRHC_{29}$ - C_{36}	mg/kg	97800-100	<100 || <100	97800-63	122%
$TRH>C_{10}$-C_{16}	mg/kg	97800-100	170 || 170 || RPD: 0	97800-63	106%
$TRH>C_{16}$-C_{34}	mg/kg	97800-100	520 || 570 || RPD: 9	97800-63	113%
$TRH>C_{34}$-C_{40}	mg/kg	97800-100	<100 || <100	97800-63	122%
Surrogate o-Terphenyl	%	97800-100	# || #	97800-63	94%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-43	23/09/2013 || 23/09/2013	LCS-10	23/09/2013
Date analysed	-	97800-43	24/09/2013 || 24/09/2013	LCS-10	24/09/2013
Naphthalene	mg/kg	97800-43	<0.1 || <0.1	LCS-10	120%
Acenaphthylene	mg/kg	97800-43	0.1 || 0.2 || RPD: 67	[NR]	[NR]
Acenaphthene	mg/kg	97800-43	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-43	<0.1 || <0.1	LCS-10	119%
Phenanthrene	mg/kg	97800-43	0.5 || 1.3 || RPD: 89	LCS-10	107%
Anthracene	mg/kg	97800-43	0.1 || 0.4 || RPD: 120	[NR]	[NR]
Fluoranthene	mg/kg	97800-43	1.0 || 3.4 || RPD: 109	LCS-10	103%
Pyrene	mg/kg	97800-43	1.0 || 3.2 || RPD: 105	LCS-10	130%
Benzo(a)anthracene	mg/kg	97800-43	0.5 || 1.7 || RPD: 109	[NR]	[NR]
Chrysene	mg/kg	97800-43	0.5 || 1.5 || RPD: 100	LCS-10	92%
Benzo(b+k)fluoranthene	mg/kg	97800-43	1.0 || 2.8 || RPD: 95	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-43	0.68 || 1.9 || RPD: 95	LCS-10	89%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-43	0.4 || 1.0 || RPD: 86	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-43	<0.1 || 0.2	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-43	0.4 || 1.0 || RPD: 86	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-43	98 || 101 || RPD: 3	LCS-10	91%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-43	23/09/2013 || 23/09/2013	LCS-5	23/09/2013
Date analysed	-	97800-43	23/09/2013 || 23/09/2013	LCS-5	23/09/2013
Arsenic	mg/kg	97800-43	5 || 5 || RPD: 0	LCS-5	98%
Cadmium	mg/kg	97800-43	<0.4 || <0.4	LCS-5	98%
Chromium	mg/kg	97800-43	18 || 19 || RPD: 5	LCS-5	102%
Copper	mg/kg	97800-43	48 || 47 || RPD: 2	LCS-5	103%
Lead	mg/kg	97800-43	43 || 36 || RPD: 18	LCS-5	99%
Mercury	mg/kg	97800-43	0.1 || 0.1 || RPD: 0	LCS-5	93%
Nickel	mg/kg	97800-43	25 || 31 || RPD: 21	LCS-5	102%
Zinc	mg/kg	97800-43	78 || 77 || RPD: 1	LCS-5	100%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-101	23/09/2013
Date analysed	-	[NT]	[NT]	97800-101	24/09/2013
TRHC$_6$ - C$_9$	mg/kg	[NT]	[NT]	97800-101	93%
TRHC$_6$ - C$_{10}$	mg/kg	[NT]	[NT]	97800-101	93%
Benzene	mg/kg	[NT]	[NT]	97800-101	73%
Toluene	mg/kg	[NT]	[NT]	97800-101	92%
Ethylbenzene	mg/kg	[NT]	[NT]	97800-101	96%
m+p-xylene	mg/kg	[NT]	[NT]	97800-101	101%
o-Xylene	mg/kg	[NT]	[NT]	97800-101	101%
naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	97800-101	99%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-79	23/09/2013
Date analysed	-	[NT]	[NT]	97800-79	24/09/2013
TRHC$_{10}$ - C$_{14}$	mg/kg	[NT]	[NT]	97800-79	140%
TRHC$_{15}$ - C$_{28}$	mg/kg	[NT]	[NT]	97800-79	125%
TRHC$_{29}$ - C$_{36}$	mg/kg	[NT]	[NT]	97800-79	130%
TRH>C$_{10}$-C$_{16}$	mg/kg	[NT]	[NT]	97800-79	140%
TRH>C$_{16}$-C$_{34}$	mg/kg	[NT]	[NT]	97800-79	125%
TRH>C$_{34}$-C$_{40}$	mg/kg	[NT]	[NT]	97800-79	130%
Surrogate o-Terphenyl	%	[NT]	[NT]	97800-79	99%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-49	23/09/2013 || 23/09/2013	LCS-11	23/09/2013
Date analysed	-	97800-49	24/09/2013 || 24/09/2013	LCS-11	24/09/2013
Naphthalene	mg/kg	97800-49	<0.1 || <0.1	LCS-11	118%
Acenaphthylene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-49	<0.1 || <0.1	LCS-11	118%
Phenanthrene	mg/kg	97800-49	<0.1 || <0.1	LCS-11	107%
Anthracene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-49	<0.1 || <0.1	LCS-11	103%
Pyrene	mg/kg	97800-49	<0.1 || <0.1	LCS-11	130%
Benzo(a)anthracene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-49	<0.1 || <0.1	LCS-11	91%
Benzo(b+k)fluoranthene	mg/kg	97800-49	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-49	<0.05 || <0.05	LCS-11	92%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	97800-49	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-49	91 || 91 || RPD: 0	LCS-11	92%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-49	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Date analysed	-	97800-49	23/09/2013 || 23/09/2013	LCS-6	23/09/2013
Arsenic	mg/kg	97800-49	7 || 8 || RPD: 13	LCS-6	97%
Cadmium	mg/kg	97800-49	<0.4 || <0.4	LCS-6	96%
Chromium	mg/kg	97800-49	20 || 19 || RPD: 5	LCS-6	101%
Copper	mg/kg	97800-49	29 || 26 || RPD: 11	LCS-6	102%
Lead	mg/kg	97800-49	19 || 19 || RPD: 0	LCS-6	98%
Mercury	mg/kg	97800-49	<0.1 || <0.1	LCS-6	100%
Nickel	mg/kg	97800-49	18 || 18 || RPD: 0	LCS-6	101%
Zinc	mg/kg	97800-49	59 || 51 || RPD: 15	LCS-6	99%
QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-101	23/09/2013
Date analysed	-	[NT]	[NT]	97800-101	24/09/2013
TRH C_{10} - C_{14}	mg/kg	[NT]	[NT]	97800-101	137%
TRH C_{15} - C_{28}	mg/kg	[NT]	[NT]	97800-101	131%
TRH C_{29} - C_{36}	mg/kg	[NT]	[NT]	97800-101	120%
TRH >C_{10}-C_{16}	mg/kg	[NT]	[NT]	97800-101	137%
TRH >C_{16}-C_{34}	mg/kg	[NT]	[NT]	97800-101	131%
TRH >C_{34}-C_{40}	mg/kg	[NT]	[NT]	97800-101	120%
Surrogate o-Terphenyl	%	[NT]	[NT]	97800-101	117%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-61	23/09/2013 || 23/09/2013	97800-12	23/09/2013
Date analysed	-	97800-61	24/09/2013 || 24/09/2013	97800-12	24/09/2013
Naphthalene	mg/kg	97800-61	<0.1 || <0.1	97800-12	116%
Acenaphthylene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-61	<0.1 || <0.1	97800-12	116%
Phenanthrene	mg/kg	97800-61	0.1 || 0.1 || RPD: 0	97800-12	105%
Anthracene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-61	<0.1 || <0.1	97800-12	101%
Pyrene	mg/kg	97800-61	<0.1 || <0.1	97800-12	128%
Benzo(a)anthracene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-61	<0.1 || <0.1	97800-12	100%
Benzo(b+k)fluoranthene	mg/kg	97800-61	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-61	<0.05 || <0.05	97800-12	105%

QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-61	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-61	91 || 93 || RPD: 2	97800-12	97%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-61	23/09/2013 || 23/09/2013	LCS-7	23/09/2013
Date analysed	-	97800-61	23/09/2013 || 23/09/2013	LCS-7	23/09/2013
Arsenic	mg/kg	97800-61	9 || 11 || RPD: 20	LCS-7	101%
Cadmium	mg/kg	97800-61	<0.4 || <0.4	LCS-7	99%
Chromium	mg/kg	97800-61	13 || 13 || RPD: 0	LCS-7	106%
Copper	mg/kg	97800-61	29 || 33 || RPD: 13	LCS-7	107%
Lead	mg/kg	97800-61	12 || 14 || RPD: 15	LCS-7	101%
Mercury	mg/kg	97800-61	<0.1 || <0.1	LCS-7	91%
Nickel	mg/kg	97800-61	12 || 13 || RPD: 8	LCS-7	104%
Zinc	mg/kg	97800-61	160 || 190 || RPD: 17	LCS-7	102%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-71	23/09/2013 || 23/09/2013	97800-23	23/09/2013
Date analysed	-	97800-71	24/09/2013 || 24/09/2013	97800-23	24/09/2013
Naphthalene	mg/kg	97800-71	<0.1 || <0.1	97800-23	120%
Acenaphthylene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-71	<0.1 || <0.1	97800-23	119%
Phenanthrene	mg/kg	97800-71	<0.1 || <0.1	97800-23	110%
Anthracene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-71	<0.1 || <0.1	97800-23	104%
Pyrene	mg/kg	97800-71	<0.1 || <0.1	97800-23	131%
Benzo(a)anthracene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-71	<0.1 || <0.1	97800-23	104%
Benzo(b+k)fluoranthene	mg/kg	97800-71	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-71	<0.05 || <0.05	97800-23	106%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-71	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-71	94 || 93 || RPD: 1	97800-23	101%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-71	23/09/2013 || 23/09/2013	97800-12	23/09/2013
Date analysed	-	97800-71	23/09/2013 || 23/09/2013	97800-12	23/09/2013
Arsenic	mg/kg	97800-71	<4 || <4	97800-12	92%
Cadmium	mg/kg	97800-71	<0.4 || <0.4	97800-12	87%
Chromium	mg/kg	97800-71	250 || 240 || RPD: 4	97800-12	92%
Copper	mg/kg	97800-71	40 || 39 || RPD: 3	97800-12	93%
Lead	mg/kg	97800-71	6 || 6 || RPD: 0	97800-12	84%
Mercury	mg/kg	97800-71	<0.1 || <0.1	97800-12	99%
Nickel	mg/kg	97800-71	180 || 170 || RPD: 6	97800-12	81%
Zinc	mg/kg	97800-71	59 || 57 || RPD: 3	97800-12	100%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-78	23/09/2013 || 23/09/2013	97800-44	23/09/2013
Date analysed	-	97800-78	24/09/2013 || 24/09/2013	97800-44	24/09/2013
Naphthalene	mg/kg	97800-78	<0.1 || <0.1	97800-44	114%
Acenaphthylene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-78	<0.1 || <0.1	97800-44	123%
Phenanthrene	mg/kg	97800-78	<0.1 || <0.1	97800-44	108%
Anthracene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-78	<0.1 || <0.1	97800-44	106%
Pyrene	mg/kg	97800-78	<0.1 || <0.1	97800-44	135%
Benzo(a)anthracene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-78	<0.1 || <0.1	97800-44	106%
Benzo(b+k)fluoranthene	mg/kg	97800-78	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-78	<0.05 || <0.05	97800-44	110%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-78	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-78	91 || 91 || RPD: 0	97800-44	103%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-78	23/09/2013 || 23/09/2013	97800-23	23/09/2013
Date analysed	-	97800-78	23/09/2013 || 23/09/2013	97800-23	23/09/2013
Arsenic	mg/kg	97800-78	6 || 5 || RPD: 18	97800-23	95%
Cadmium	mg/kg	97800-78	<0.4 || <0.4	97800-23	96%
Chromium	mg/kg	97800-78	20 || 14 || RPD: 35	97800-23	100%
Copper	mg/kg	97800-78	33 || 30 || RPD: 10	97800-23	101%
Lead	mg/kg	97800-78	15 || 16 || RPD: 6	97800-23	98%
Mercury	mg/kg	97800-78	<0.1 || <0.1	97800-23	94%
Nickel	mg/kg	97800-78	17 || 14 || RPD: 19	97800-23	101%
Zinc	mg/kg	97800-78	49 || 47 || RPD: 4	97800-23	99%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-92	23/09/2013 || 23/09/2013	97800-63	23/09/2013
Date analysed	-	97800-92	24/09/2013 || 24/09/2013	97800-63	24/09/2013
Naphthalene	mg/kg	97800-92	<0.1 || <0.1	97800-63	114%
Acenaphthylene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Acenaphthene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Fluorene	mg/kg	97800-92	<0.1 || <0.1	97800-63	114%
Phenanthrene	mg/kg	97800-92	<0.1 || <0.1	97800-63	104%
Anthracene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-92	<0.1 || <0.1	97800-63	98%
Pyrene	mg/kg	97800-92	<0.1 || <0.1	97800-63	123%
Benzo(a)anthracene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Chrysene	mg/kg	97800-92	<0.1 || <0.1	97800-63	88%
Benzo(b+k)fluoranthene	mg/kg	97800-92	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-92	<0.05 || <0.05	97800-63	88%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-92	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-92	96 || 93 || RPD: 3	97800-63	87%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-92	23/09/2013 || 23/09/2013	97800-44	23/09/2013
Date analysed	-	97800-92	23/09/2013 || 23/09/2013	97800-44	23/09/2013
Arsenic	mg/kg	97800-92	<4 || <4	97800-44	87%
Cadmium	mg/kg	97800-92	<0.4 || <0.4	97800-44	86%
Chromium	mg/kg	97800-92	8 || 8 || RPD: 0	97800-44	91%
Copper	mg/kg	97800-92	40 || 41 || RPD: 2	97800-44	106%
Lead	mg/kg	97800-92	14 || 16 || RPD: 13	97800-44	89%
Mercury	mg/kg	97800-92	<0.1 || <0.1	97800-44	96%
Nickel	mg/kg	97800-92	14 || 16 || RPD: 13	97800-44	91%
Zinc	mg/kg	97800-92	55 || 54 || RPD: 2	97800-44	94%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	97800-100	23/09/2013 || 23/09/2013	97800-79	23/09/2013
Date analysed	-	97800-100	24/09/2013 || 24/09/2013	97800-79	24/09/2013
Naphthalene	mg/kg	97800-100	2.1 || 2.5 || RPD: 17	97800-79	113%
Acenaphthylene	mg/kg	97800-100	0.1 || 0.1 || RPD: 0	[NR]	[NR]
Acenaphthene	mg/kg	97800-100	0.3 || 0.3 || RPD: 0	[NR]	[NR]
Fluorene	mg/kg	97800-100	<0.1 || <0.1	97800-79	123%
Phenanthrene	mg/kg	97800-100	1.9 || 2.0 || RPD: 5	97800-79	111%
Anthracene	mg/kg	97800-100	<0.1 || <0.1	[NR]	[NR]
Fluoranthene	mg/kg	97800-100	0.4 || 0.3 || RPD: 29	97800-79	103%
Pyrene	mg/kg	97800-100	0.5 || 0.4 || RPD: 22	97800-79	128%
Benzo(a)anthracene	mg/kg	97800-100	0.2 || 0.1 || RPD: 67	[NR]	[NR]
Chrysene	mg/kg	97800-100	0.2 || 0.1 || RPD: 67	97800-79	96%
Benzo(b+k)fluoranthene	mg/kg	97800-100	<0.2 || <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	97800-100	0.09 || 0.06 || RPD: 40	97800-79	82%
Indeno(1,2,3-c,d)pyrene	mg/kg	97800-100	<0.1 || <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	97800-100	<0.1 || <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	97800-100	<0.1 || <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	97800-100	99 || 101 || RPD: 2	97800-79	91%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	97800-100	23/09/2013 || 23/09/2013	97800-63	23/09/2013
Date analysed	-	97800-100	23/09/2013 || 23/09/2013	97800-63	23/09/2013
Arsenic	mg/kg	97800-100	7 || 9 || RPD: 25	97800-63	94%
Cadmium	mg/kg	97800-100	<0.4 || <0.4	97800-63	84%
Chromium	mg/kg	97800-100	20 || 24 || RPD: 18	97800-63	86%
Copper	mg/kg	97800-100	22 || 29 || RPD: 27	97800-63	112%
Lead	mg/kg	97800-100	15 || 16 || RPD: 6	97800-63	92%
Mercury	mg/kg	97800-100	<0.1 || <0.1	97800-63	99%
Nickel	mg/kg	97800-100	18 || 21 || RPD: 15	97800-63	79%
Zinc	mg/kg	97800-100	89 || 100 || RPD: 12	97800-63	104%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	97800-101	23/09/2013
Date analysed	-	[NT]	[NT]	97800-101	24/09/2013
Naphthalene	mg/kg	[NT]	[NT]	97800-101	121%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	97800-101	120%
Phenanthrene	mg/kg	[NT]	[NT]	97800-101	112%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	97800-101	105%
Pyrene	mg/kg	[NT]	[NT]	97800-101	133%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	97800-101	91%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	97800-101	91%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	97800-101	95%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	97800-79	23/09/2013
Date analysed	-	[NT]	[NT]	97800-79	23/09/2013
Arsenic	mg/kg	[NT]	[NT]	97800-79	96%
Cadmium	mg/kg	[NT]	[NT]	97800-79	93%
Chromium	mg/kg	[NT]	[NT]	97800-79	100%
Copper	mg/kg	[NT]	[NT]	97800-79	125%
Lead	mg/kg	[NT]	[NT]	97800-79	94%
Mercury	mg/kg	[NT]	[NT]	97800-79	98%
Nickel	mg/kg	[NT]	[NT]	97800-79	96%
Zinc	mg/kg	[NT]	[NT]	97800-79	110%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	97800-101	23/09/2013
Date analysed	-	[NT]	[NT]	97800-101	23/09/2013
Arsenic	mg/kg	[NT]	[NT]	97800-101	107%
Cadmium	mg/kg	[NT]	[NT]	97800-101	95%
Chromium	mg/kg	[NT]	[NT]	97800-101	112%
Copper	mg/kg	[NT]	[NT]	97800-101	121%
Lead	mg/kg	[NT]	[NT]	97800-101	97%
Mercury	mg/kg	[NT]	[NT]	97800-101	94%
Nickel	mg/kg	[NT]	[NT]	97800-101	103%
Zinc	mg/kg	[NT]	[NT]	97800-101	112%

Report Comments:

PAH's in soil:The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

Total Recoverable Hydrocarbons in soil (NEPM):# Percent recovery is not possible to report as the high concentration of analytes in the sample/s have caused interference.

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

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

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

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

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

CLIENT DETAILS

Contact	Stephen Challinor
Client	David Lane Associates - Hunter
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Project	**DLH1121 - Horsley Park**
Order Number	(Not specified)
Samples	7

LABORATORY DETAILS

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SGS Reference	**SE121040 R0**
Report Number	0000066624
Date Reported	02 Oct 2013
Date Received	25 Sep 2013

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

SIGNATORIES

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Kamrul Ahsan
Senior Chemist

Parameter	Units	LOR	Sample Number: SE121040.001 Sample Matrix: Soil Sample Date: 20 Sep 2013 Sample Name: Bund-21b	SE121040.002 Soil 20 Sep 2013 Bund-13b	SE121040.003 Soil 20 Sep 2013 SP1-5b	SE121040.004 Soil 20 Sep 2013 Bund-10b
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420						
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1
1-methylnaphthalene	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	0.4	0.1	0.1
Anthracene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	0.8	<0.1	0.1
Pyrene	mg/kg	0.1	<0.1	0.7	<0.1	0.2
Benzo(a)anthracene	mg/kg	0.1	<0.1	0.3	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	0.3	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.4	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	0.3	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1
Dibenzo(a&h)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	0.2	<0.1	<0.1
Total PAH	mg/kg	0.8	<0.8	3.8	<0.8	<0.8
Carcinogenic PAHs (as BaP TEQ)*	TEQ	0.2	<0.2	0.4	<0.2	<0.2
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	90	92	96	96
2-fluorobiphenyl (Surrogate)	%	-	98	100	100	102
d14-p-terphenyl (Surrogate)	%	-	116	126	126	122
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320						
Arsenic, As	mg/kg	3	5	7	16	7
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	0.3
Chromium, Cr	mg/kg	0.3	12	17	9.8	28
Copper, Cu	mg/kg	0.5	23	21	41	33
Lead, Pb	mg/kg	1	14	62	18	110
Nickel, Ni	mg/kg	0.5	9.9	9.2	19	20
Zinc, Zn	mg/kg	0.5	44	83	73	160

Parameter	Units	LOR	Sample Number: SE121040.001 Sample Matrix: Soil Sample Date: 20 Sep 2013 Sample Name: Bund-21b	SE121040.002 Soil 20 Sep 2013 Bund-13b	SE121040.003 Soil 20 Sep 2013 SP1-5b	SE121040.004 Soil 20 Sep 2013 Bund-10b
Mercury in Soil Method: AN312						
Mercury	mg/kg	0.01	0.02	0.07	0.03	0.15
Moisture Content Method: AN002						
% Moisture	%	0.5	10	11	4.9	12

Parameter	Units	LOR	Sample Number: SE121040.005 Sample Matrix: Soil Sample Date: 20 Sep 2013 Sample Name: Bund-14b	SE121040.006 Soil 20 Sep 2013 Bund-11b	SE121040.007 Soil 20 Sep 2013 S2b
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420					
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	0.2	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	0.2	<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	0.3	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.1	0.1	<0.1
Pyrene	mg/kg	0.1	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)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)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(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Total PAH	mg/kg	0.8	<0.8	0.9	<0.8
Carcinogenic PAHs (as BaP TEQ)*	TEQ	0.2	<0.2	<0.2	<0.2
Surrogates					
d5-nitrobenzene (Surrogate)	%	-	92	94	92
2-fluorobiphenyl (Surrogate)	%	-	96	96	98
d14-p-terphenyl (Surrogate)	%	-	118	126	124
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320					
Arsenic, As	mg/kg	3	6	6	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	14	8.3	11
Copper, Cu	mg/kg	0.5	21	37	22
Lead, Pb	mg/kg	1	140	31	36
Nickel, Ni	mg/kg	0.5	11	16	12
Zinc, Zn	mg/kg	0.5	52	160	100

Parameter	Units	LOR	Sample Number: SE121040.005 Sample Matrix: Soil Sample Date: 20 Sep 2013 Sample Name: Bund-14b	SE121040.006 Soil 20 Sep 2013 Bund-11b	SE121040.007 Soil 20 Sep 2013 S2b
Mercury in Soil Method: AN312					
Mercury	mg/kg	0.01	**0.03**	**0.04**	**0.04**
Moisture Content Method: AN002					
% Moisture	%	0.5	**6.6**	**10**	**10**

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Mercury in Soil **Method: ME-(AU)-[ENV]AN312**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Mercury	LB045591	mg/kg	0.01	<0.01	45%	109%	96%

PAH (Polynuclear Aromatic Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB045511	mg/kg	0.1	<0.1	0%	101%	102%
2-methylnaphthalene	LB045511	mg/kg	0.1	<0.1	0%	NA	NA
1-methylnaphthalene	LB045511	mg/kg	0.1	<0.1	0%	NA	NA
Acenaphthylene	LB045511	mg/kg	0.1	<0.1	0%	108%	111%
Acenaphthene	LB045511	mg/kg	0.1	<0.1	0%	101%	95%
Fluorene	LB045511	mg/kg	0.1	<0.1	0%	NA	NA
Phenanthrene	LB045511	mg/kg	0.1	<0.1	118%	118%	104%
Anthracene	LB045511	mg/kg	0.1	<0.1	97%	98%	91%
Fluoranthene	LB045511	mg/kg	0.1	<0.1	116%	79%	81%
Pyrene	LB045511	mg/kg	0.1	<0.1	88%	101%	89%
Benzo(a)anthracene	LB045511	mg/kg	0.1	<0.1	126%	NA	NA
Chrysene	LB045511	mg/kg	0.1	<0.1	135%	NA	NA
Benzo(b&j)fluoranthene	LB045511	mg/kg	0.1	<0.1	138%	NA	NA
Benzo(k)fluoranthene	LB045511	mg/kg	0.1	<0.1	71%	NA	NA
Benzo(a)pyrene	LB045511	mg/kg	0.1	<0.1	120%	103%	111%
Indeno(1,2,3-cd)pyrene	LB045511	mg/kg	0.1	<0.1	52%	NA	NA
Dibenzo(a&h)anthracene	LB045511	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(ghi)perylene	LB045511	mg/kg	0.1	<0.1	46%	NA	NA
Total PAH	LB045511	mg/kg	0.8	<0.8	129%	NA	NA
Carcinogenic PAHs (as BaP TEQ)*	LB045511	TEQ	0.2	<0.2	95%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d5-nitrobenzene (Surrogate)	LB045511	%	-	108%	13%	98%	100%
2-fluorobiphenyl (Surrogate)	LB045511	%	-	110%	16%	96%	102%
d14-p-terphenyl (Surrogate)	LB045511	%	-	112%	3%	108%	116%

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Arsenic, As	LB045589	mg/kg	3	<3	18%	95%
Cadmium, Cd	LB045589	mg/kg	0.3	<0.3	0%	97%
Chromium, Cr	LB045589	mg/kg	0.3	<0.3	13%	97%
Copper, Cu	LB045589	mg/kg	0.5	<0.5	13%	98%
Lead, Pb	LB045589	mg/kg	1	<1	8%	98%
Nickel, Ni	LB045589	mg/kg	0.5	<0.5	0%	97%
Zinc, Zn	LB045589	mg/kg	0.5	<0.5	2%	98%

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analsysis by ASS or ICP as per USEPA Method 200.8.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN088	Orbital rolling for Organic pollutants are extracted from soil/sediment by transferring an appropriate mass of sample to a clear soil jar and extracting with 1:1 Dichloromethane/Acetone. Orbital Rolling method is intended for the extraction of semi-volatile organic compounds from soil/sediment samples, and is based somewhat on USEPA method 3570 (Micro Organic extraction and sample preparation). Method 3700.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	Carcinogenic PAHs may be expressed as Benzo(a)pyrene equivalents by applying the BaP toxicity equivalence factor (NEPM 1999, June 2013, B7). These can be reported as the individual PAHs and as a sum of carcinogenic PAHs

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	This analysis is not covered by the scope of accreditation.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
^	Performed by outside laboratory.	NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here:
http://www.sgs.com.au.pv.sgsv3/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

ANALYTICAL REPORT

WORLD RECOGNISED ACCREDITATION

CLIENT DETAILS		LABORATORY DETAILS	
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Project	**DLH1121 - Horsley Park**	SGS Reference	**SE120899 R0**
Order Number	(Not specified)	Report Number	0000066145
Samples	3	Date Reported	26 Sep 2013
		Date Received	19 Sep 2013

COMMENTS

Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

SIGNATORIES

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Dong Liang
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Kamrul Ahsan
Senior Chemist

Parameter	Units	LOR	Sample Number SE120899.001 Sample Matrix Soil Sample Date 12 Sep 2013 Sample Name 1	SE120899.002 Soil 12 Sep 2013 2	SE120899.003 Soil 12 Sep 2013 3
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420					
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	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	0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<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)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)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(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Total PAH	mg/kg	0.8	<0.8	<0.8	<0.8
Carcinogenic PAHs (as BaP TEQ)*	TEQ	0.2	<0.2	<0.2	<0.2
Surrogates					
d5-nitrobenzene (Surrogate)	%	-	114	110	108
2-fluorobiphenyl (Surrogate)	%	-	110	104	110
d14-p-terphenyl (Surrogate)	%	-	110	110	120
Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest Method: AN040/AN320					
Arsenic, As	mg/kg	3	72	5	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	5.5	2.5	13
Copper, Cu	mg/kg	0.5	10	1.0	20
Lead, Pb	mg/kg	1	9	3	28
Nickel, Ni	mg/kg	0.5	3.5	1.4	15
Zinc, Zn	mg/kg	0.5	13	2.3	56
Mercury in Soil Method: AN312					
Mercury	mg/kg	0.01	0.07	<0.01	0.03
Moisture Content Method: AN002					
% Moisture	%	0.5	18	4.8	12

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Mercury in Soil **Method: ME-(AU)-[ENV]AN312**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Mercury	LB045340	mg/kg	0.01	<0.01	0 - 11%	107%	103%

PAH (Polynuclear Aromatic Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Naphthalene	LB045285	mg/kg	0.1	<0.1	0%	102%
2-methylnaphthalene	LB045285	mg/kg	0.1	<0.1	0%	NA
1-methylnaphthalene	LB045285	mg/kg	0.1	<0.1	0%	NA
Acenaphthylene	LB045285	mg/kg	0.1	<0.1	0%	101%
Acenaphthene	LB045285	mg/kg	0.1	<0.1	0%	101%
Fluorene	LB045285	mg/kg	0.1	<0.1	0%	NA
Phenanthrene	LB045285	mg/kg	0.1	<0.1	0%	102%
Anthracene	LB045285	mg/kg	0.1	<0.1	0%	101%
Fluoranthene	LB045285	mg/kg	0.1	<0.1	0%	109%
Pyrene	LB045285	mg/kg	0.1	<0.1	0%	105%
Benzo(a)anthracene	LB045285	mg/kg	0.1	<0.1	0%	NA
Chrysene	LB045285	mg/kg	0.1	<0.1	0%	NA
Benzo(b&j)fluoranthene	LB045285	mg/kg	0.1	<0.1	0%	NA
Benzo(k)fluoranthene	LB045285	mg/kg	0.1	<0.1	0%	NA
Benzo(a)pyrene	LB045285	mg/kg	0.1	<0.1	0%	101%
Indeno(1,2,3-cd)pyrene	LB045285	mg/kg	0.1	<0.1	0%	NA
Dibenzo(a&h)anthracene	LB045285	mg/kg	0.1	<0.1	0%	NA
Benzo(ghi)perylene	LB045285	mg/kg	0.1	<0.1	0%	NA
Total PAH	LB045285	mg/kg	0.8	<0.8	0%	NA
Carcinogenic PAHs (as BaP TEQ)*	LB045285	TEQ	0.2	<0.2	0%	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
d5-nitrobenzene (Surrogate)	LB045285	%	-	118%	4%	106%
2-fluorobiphenyl (Surrogate)	LB045285	%	-	108%	4%	110%
d14-p-terphenyl (Surrogate)	LB045285	%	-	112%	4%	120%

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: *the absolute difference of the two results divided by the average of the two results as a percentage.* Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Total Recoverable Metals in Soil by ICPOES from EPA 200.8 Digest **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB045336	mg/kg	3	<3	4 - 9%	98%	
Cadmium, Cd	LB045336	mg/kg	0.3	<0.3	0%	97%	
Chromium, Cr	LB045336	mg/kg	0.3	<0.3	2%	99%	
Copper, Cu	LB045336	mg/kg	0.5	<0.5	4 - 14%	96%	
Lead, Pb	LB045336	mg/kg	1	<1	3 - 14%	98%	86%
Nickel, Ni	LB045336	mg/kg	0.5	<0.5	7 - 9%	100%	
Zinc, Zn	LB045336	mg/kg	0.5	<0.5	0 - 6%	97%	

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analsysis by ASS or ICP as per USEPA Method 200.8.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN088	Orbital rolling for Organic pollutants are extracted from soil/sediment by transferring an appropriate mass of sample to a clear soil jar and extracting with 1:1 Dichloromethane/Acetone. Orbital Rolling method is intended for the extraction of semi-volatile organic compounds from soil/sediment samples, and is based somewhat on USEPA method 3570 (Micro Organic extraction and sample preparation). Method 3700.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	Carcinogenic PAHs may be expressed as Benzo(a)pyrene equivalents by applying the BaP toxicity equivalence factor (NEPM 1999, June 2013, B7). These can be reported as the individual PAHs and as a sum of carcinogenic PAHs

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	This analysis is not covered by the scope of accreditation.	QFH	QC result is above the upper tolerance
**	Indicative data, theoretical holding time exceeded.	QFL	QC result is below the lower tolerance
^	Performed by outside laboratory.	-	The sample was not analysed for this analyte
		NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here:
http://www.sgs.com.au.pv.sgsv3/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

Appendix B

Site Environmental and Remediation Works Management Plan

DLA environmental
ABN 80 601 661 634

Sydney
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Hornsby NSW 2077
Phone: 9476 1765
Fax: 9476 1557
Email: sydney@dlaenvironmental.com.au

Maitland
42B Church Street
Maitland NSW 2320
PO Box 137
Branxton NSW 2335
Phone: 4933 0001
Email: hunter@dlaenvironmental.com.au

1st December 2014

Browns Consulting
C/- CSR Limited
Level 2, 2 Burbank Place
Norwest Business Park
Baulkham Hills NSW 2153

Re: Site Environmental Management Plan (SEMP) – 327-335 Burley Road Horsley Park, NSW 2174.

DLA Environmental Services (DLA) was commissioned by Browns Consulting c/- CSR Limited to prepare a Remediation Action Plan (RAP) for the property identified as Lot 1 in DP 106143 at 327-335 Burley Road Horsley Park, NSW 2174 (the Site).

As part of the remediation programme, DLA was requested to prepare a Site Environmental Management Plan (SEMP) as stipulated in the *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011). The components of the SEMP have been included below:

1.0 SITE ENVIRONMENTAL MANAGEMENT PLAN

1.1 Introduction

A major component of the remedial works shall involve the installation and maintenance of a Site Environmental Management Plan (SEMP). The SEMP will provide details of the environmental protection and pollution control measures to be implemented during the operational phase of the remedial works.

The pollution control measures have the objective of removing/minimising any adverse impact on the surrounding environment. Details of the pollution control measures to be implemented are documented in the SEMP for the remediation works which is prepared (and approved) prior to commencement of remedial works.

In order to prepare the Environmental Management Plan for the remedial works, a review will be undertaken to identify possible impacts on the surrounding environment. For each potential impact identified the range of pollution control measure(s) available for mitigating the impact was reviewed and the most practicable, efficient and cost effective were identified for implementation.

It was envisaged that there would be a series of control measures that would be common to the various elements of the remedial works. In addition, there are supplementary control measures that would be specific to particular elements of the remedial works.

In the following sections, outlines have been presented of the various pollution control measures that would be implemented during most elements of the remedial works. These form the basis of the SEMP that should be read in conjunction with the RAP.

It is appropriate for the Contractor to develop EMP control measures for their component of the works based on the broad guidelines of the RAP.

1.2 Erosion Sedimentation Control Plan

Erosion and run-off control measures will be implemented during all elements of remedial works undertaken. Typically, these measures will be designed to prevent the transport of pollutants (including sediments) out of the remediation area via stormwater/surface run-off.

Generally, no surface run-off and/or water from excavations/pits and trenches within the remediation area will be permitted to discharge, without regulatory authority approval, to the surrounding environment. Run-off control measures will be developed giving consideration to the site conditions in each remediation area, and are likely to include (but not necessarily be limited to) the following:

- Diversion drains, berms, sumps and pumping systems to prevent runoff entering or leaving excavation areas. All water in contact with works will be diverted through the treatment system;
- Truck cleaning areas for use in washing down all vehicles potentially coming into contact with contaminated soil leaving a remediation area; and,
- Use of silt fencing, hay bales and/or oil absorbing booms, as required.

1.3 Noise Control Plan

The impact of noise associated with the Site remediation works is acknowledged as a potentially important environmental effect. It will be necessary to minimise noise in accordance with OEH Standards. The methods used to control noise will be dependent upon the equipment being used for particular remedial activities however, it would be expected that the methods would include those commonly used during normal construction and demolition works.

Noise control measures will be developed giving consideration to the Site conditions in each remediation area, and are likely to include (but not necessarily be limited to) the following:

- Site work will be restricted to the hours specified below;
- The use of construction vehicles on-site will be kept to a minimum;
- All equipment in operation in open areas on-site shall comply with the requirements of AS2436-1981 *Guide to Noise Control on Construction, Maintenance and Demolition Sites*; and,
- Noise monitoring may be conducted during the site remediation program.

1.4 Dust Control Plan

During the course of remediation works dust control measures shall be undertaken to ensure that dust generated from the site is controlled within acceptable levels. These control measures will be developed giving consideration to the site conditions in each remediation area, and are likely to include (but not necessarily be limited) to the following:

- All vehicles leaving the site will be cleaned on site to remove any potentially contaminated dust;
- Access to water sprays shall be available to water down the excavation/loading if dust generation becomes significant;
- Plastic sheeting shall be available to cover excavation faces and stockpiles; and,
- An ambient air-monitoring program shall monitor dust levels at the site boundary, as necessary.

1.5 Odour Control Plan

During the course of remediation works odour control measures shall be undertaken to ensure that possible odours generated on-site are controlled to within acceptable levels. These control measures will be developed giving consideration to the site conditions in each remediation area, and are likely to include (but not necessarily be limited) to the following:

- The prevailing weather conditions shall be considered in the manner in which work is undertaken;
- Plastic sheeting (such as VLDPE or PVC) will be made available at all times on-site to allow for any excavated or disturbed contaminated soils to be covered, if necessary to reduce odour;
- Odour masking agents (such as Biosolve) will be available for use on-site to suppress any nuisance odours not controlled by the above actions, so that ambient air quality at the site boundary is not adversely impacted.
- Application of Biosolve at a rate of 1 part to 5 parts water will be by way of hand held pressure applicator.

2.0 HEALTH AND SAFETY

2.1 Workplace Health and Safety

A Workplace Health and Safety (WHS) plan is an essential part of all remediation projects, to ensure the health and safety of all personnel working on or visiting the site. All remediation work would be undertaken in accordance with the provisions set out by the *Work Health and Safety Act* (2011) and associated *Work Health and Safety Regulation* (2011), and any other regulations or directions set out by regulatory authorities.

Typically the WHS plan would consider a broad range of issues including (but not limited to) the following:

- Characterisation of potential hazards including hazardous materials and site activities (e.g. excavation);
- Air and dust monitoring required within and at the boundary of the remediation area;
- Personnel and equipment movements to and from the remediation area;
- Training, instruction, and induction of site workers/visitors;
- Clear outline of responsibilities for health and safety; and,
- Emergency response plan for injuries or chemical exposure.
- Prior to commencing any remediation works, a specific WHS Plan would be prepared by the Remediation Contractor covering the following aspects:
- Identification of the remediation area and exclusion zones;
- Induction of personnel;
- Hazard identification/locations;
- Identification of contaminants of concern and their physical and toxicological properties;
- Description of exposure pathways and personal protection requirements;
- Location of all underground/aboveground services;
- Details of specific work practice procedures to be followed within the designated contaminated areas;
- Monitoring protocols to identify a potentially hazardous practice;
- Emergency information; and,
- Incident reporting.

Workplace Health and Safety Planning involves the development and implementation of systems and procedures into a Health and Safety Plan included in a site Work Method statement. The objectives of these documents are to ensure the health and safety of those undertaking specific tasks on site and the wider community if necessary.

A Health and Safety Plan should be developed for any site work and would typically include the following:

- A clear health and safety policy;
- Requirements for worker health assessments and inductions;
- Identified health and safety training requirements;
- Requirements for occupational health protection and monitoring;
- Site/location specific emergency plan;
- Site/location specific emergency contact details;
- Permit to work/clearance procedures, and
- Task specific safe work method statements.

2.2 Personal Hygiene and Decontamination

Appropriate hygiene and decontamination assists with minimising worker exposure and the transportation of potentially contaminated materials from the site to more sensitive home environments.

The following activities are prohibited while working in the hazardous materials area:

- eating;
- drinking;
- chewing gum, and;
- smoking.

Practices that involve contact between the hands and the mouth increase the risk of chemical ingestion. Hands should be thoroughly washed with soap and water after completing work activities and before meal breaks.

Personal decontamination is required to minimise workers' exposure to, and indirect transportation of potential chemicals of concern.

Decontamination involves physically removing material from personnel and equipment. Protective equipment, tools and other equipment are decontaminated by cleaning with detergent water using a soft-bristle brush followed by rinsing with a sufficient quantity of water.
Decontamination should be conducted before meal breaks, and at the end of a day's work.

2.3 Community Health and Safety

The health and safety of the surrounding community is very important for any remediation works. While it is possible to control the activities of personnel within the remediation area (e.g. ensuring appropriate WHS procedures and equipment are utilised) it is not normally possible to control the activities of the surrounding community. Therefore, to protect the community health and safety it is necessary to control the remedial works so that no fugitive emissions occur during the remedial works that could have an adverse impact on the surrounding community.

These controls are documented in the Environment Management Plan for the remedial works, although monitoring requirements to confirm the effectiveness of the measures may also be documented in the WHS Plan. The methodology that would normally be used to develop the control measures is described below.

Firstly, the portions of the community that may be impacted by any fugitive emissions will be identified. Secondly an assessment of the hazard posed by the contaminants and the proposed remedial methodology/technology would be undertaken. This assessment would define the hazard posed by the particular contaminants present in the remediation area using risk assessment techniques (i.e. identifying the hazard or contaminants and the exposure pathway that the potentially at risk community could be exposed to the hazard).

Once these have been identified, a review will be undertaken of control measures available to remove or minimise the risk posed to the surrounding community during the remedial works. Typically the control measures would comprise removal/minimisation of the exposure pathway to the community. As indicated above it may be necessary to undertake monitoring to confirm the effectiveness of the control measures, and if the monitoring indicates a possibility for exposure then contingency measures may need to be implemented. By way of example control mechanisms could include (but not necessarily limited to) the following:

- Site security measures to prevent access to the contaminated material by the public;
- Dust suppression measures to minimise inhalation and ingestion exposure; and,
- Not undertaking certain work if winds are unfavourable etc.

2.4 Traffic Control Plan

Movement of excavation equipment, trucks and other vehicles involved in the remediation works, to and from the site will be strictly controlled and restricted to a minimum and only take place during approved working hours. All potentially contaminated vehicles leaving the site will be decontaminated

in an appropriate truck wash-down area. All vehicles will be visually free of soil before permission to leave a remediation area is granted.

2.5 Hours of Operation

Working hours for any on-site remedial works would be set in consultation with the Council, but it is envisaged the likely hours would be as follows:

- Mondays to Fridays 7:00 am to 5:00 pm
- Saturdays 7:00 am to 3:00 pm
- Sundays and Public Holidays No Work Permitted

2.6 Emergency and Out of Hours Contact Numbers

DLA Environmental	**94761765**
David Lane	**0410494810**
NSW OEH	**99955000**
WorkCover NSW	**43215000**
DNR	**92286111**

3.0 REMEDIATION WORKS MANAGEMENT

3.1 Regulatory Approvals/Licences

Prior to the commencement of remedial work, all relevant regulatory approvals will need to be obtained. Such approvals/licenses will include (but may not be limited) to the following:

- Appropriate approvals for disposal of wastes to landfill e.g. contaminated soils, concrete demolition waste etc in accordance with the POEO Act 1997,
- Regulatory Authority consent for Category 1 or 2 remedial activities, in accordance clause 16 (3) of State Environmental Planning Policy SEPP – No 55 – *Remediation of Land*.

3.2 Environmental Protection and Pollution Control

3.2.1 General

When the remedial works are being planned an assessment of potential mechanism for fugitive emissions from the remediation area will be completed. Contingency plans shall then be developed to deal with any identified emissions. The contingency plans will detail the response procedures to be implemented immediately after detection of a fugitive emission to the surrounding environment. The contingency plan will include details of the potential emissions identified and the appropriate response measures. The following outlines some examples of unexpected situations that may arise and may require response measures:

- Dust, noise, odour levels measured at site boundary may exceed acceptable levels; or,
- Surface water run-off may leave the site;

Typically, in cases where fugitive emissions are identified, the Project Manager/Superintendent will stop work and appropriate situation specific responses will be taken. By way of example these could include: reducing dust by further water spraying, reducing machinery on-site to minimise noise, intercepting run-off with diversion drains and a pumping system, backfilling an excavation to remove an unpleasant odour etc.

3.2.2 Buffer Zone

Wherever possible, a buffer zone will be established around remedial works. The effect of this buffer zone will to minimise the potential for impacts on the surrounding open space and residential areas as well as the community as a whole. The location and layout of the buffer zone will be determined by consideration of (but not necessarily limited to) the following:

- Hazards associated with, and exposure pathways to the main contaminants in the remediation area;
- Surrounding land uses;
- Prevailing weather conditions; and,
- Existing physical barriers (e.g. fences, buildings etc).

Access to the area within the buffer zone would be restricted to persons directly involved in the remedial works. If it is not possible to establish an adequate buffer zone in some areas where remedial works are to be undertaken, consideration will be given to other means of ensuring that there are no adverse impacts on the surrounding land users. This could include, for example minimising or restricting the extent of any excavations or other activities that would effectively limit exposure to contamination.

3.3 Community Relations Plan

3.3.1 Communications Plan

Meetings with stakeholders have kept information on the Project flowing to involved groups. It is envisaged that the remediation program will be developed in consultation with the stakeholders prior to implementation.

It is likely that the plan would intend to:

- Provide the stakeholders with information about the remedial works project;
- Enable the stakeholders to raise questions/concerns and other suggestions regarding the remedial works project; and,
- Co-ordinate matters of concern in relation to the remedial works project with Council and Regulatory Authorities with a stake in the project.

3.3.2 Complaint Response Measures

A complaint response system has been developed for dealing with any complaints received.

The system includes:

- Identification of the individuals (e.g. Project Manager etc) with overall responsibility of ensuring all complaints are dealt with in an appropriate manner;
- A clearly documented procedure for receiving, logging and passing on details of any complaints to the appropriate personnel. Refer to Environmental Management Plan;

- Clearly defined roles for personnel working on the project in relation to complaint reporting and response;
- A complaint register, which will record details of complaints, the party making the complaint, the parties, notified of the complaint, and actions arising from the complaint;
- Mechanisms for advising Council and Regulatory Authorities of complaints in their jurisdiction;
- Mechanisms for disseminating information (as appropriate) to the local community and/or committee regarding complaints and the response to the complaints; and,
- Procedure for following up on the satisfactory resolution of any complaints.

3.3.3 Staged Progress Reporting

It is envisaged that staged progress reporting will be undertaken throughout the remedial works program. It is likely that these will comprise preparation and submission of regular status reports to the appropriate interested parties. The status reports would be expected to include a summary of:

- Results of any monitoring work undertaken during the reporting period;
- Details of the work undertaken during the reporting period;
- Details of any environmental incidents during the reporting period and the actions arising from these incidents;
- Details of any unexpected situations encountered in undertaking the remedial work during the reporting period and the response to these situations;
- Details of any variations required to the RAP for which approval has been sought; and,
- Updates on project schedule.

Additionally, the occurrence of any event which causes or is likely to cause substantial pollution of the environment or represents a human health risk would be notified to the appropriate Regulatory Authority(s) as soon as practicable after it becomes known to the Project Manager, Remediation Contractor or Council. Should such an event occur a written report shall be supplied to the appropriate Regulatory Authority(s) within 21 days of the event. Such a report would include full details of the incident, including time and duration of the event, the type and volume of any pollutants discharged, any remedial activities undertaken and any measures taken to prevent or mitigate against a recurrence of such an event.

Upon completion of the site remediation works a Validation Report shall be prepared and issued. The report will be prepared in accordance with the NSW EPA's *Guideline for Consultants Reporting on Contaminated Sites (1997*) and the NEPM 2013.

Appendix C
Unexpected Finds Protocol

APPENDIX C

Unexpected Findings Protocol for 327-335 Burley Road, Horsley Park.

DLA Environmental was engaged by CSR Australia to provide an Unexpected Findings Protocol for the Remediation Action Plan associated with works at the property known as the 327-335 Burley Road, Horsley Park NSW (Site).

This Unexpected Findings Protocol (UFP) has been developed as part of the construction planning for implementation during site activities primarily associated with excavation and civil activities at the Site. It has been prepared to ensure appropriate management of soil, fill and/or groundwater which may contain undefined contamination levels or foreign materials should they be encountered during Site works.

Areas of environmental concern have been identified and management practices have been implemented to manage any environmental risk associated with these areas. It is thought prudent to implement an Unexpected Findings Protocol to cover all possible potential contamination scenarios that may be encountered during works on-site.

Potential contamination on the Site which may exist outside the confines of the past environmental investigations will be managed through the following UFP.

UNEXPECTED FINDINGS PROTOCOL

1.0 Introduction

Due to the history of the Site, both past and present, there is potential for materials to be uncovered that have not been observed in previous investigations. These materials may require additional assessment or management. It is imperative that the potential for such material to impact site workers and the remainder of the site is minimised during further remedial and construction works.

Potential contamination may include:

- fill material from unknown sources;
- fill material contaminated with PAH's, hydrocarbons or heavy metals and other unknown sources of contamination
- Polycyclic Aromatic Hydrocarbons; (PAH's); and
- Asbestos Containing Materials (ACM) from building/demolition waste.

2.0 Typical features of "Unexpected Findings"

Any material that is uncovered during the earthworks deemed to be foreign, be that UST related, imported fill material or building waste, should be scrutinised further to determine if total Petroleum hydrocarbons, asbestos containing materials or other contaminants are present.

The main features to look for are:

- material containing anthropogenic artefacts such as rubble, plastics, metal etc;
- asbestos or suspected asbestos containing material;
- material with fibres visible;
- material with an obvious unnatural odour i.e. fuel, solvent, burnt odour
- material that is noticeably stained in colour;

- archaeological artefacts; and
- any material that has evidently been dumped on site.

3.0 Implementation of the UFP

Prior to the commencement of any Excavation or Construction works onsite an Occupational Health and Safety induction should be attended by all site staff, the aim and importance of the UFP and how it is to be implemented should be discussed at this time. Responsibility for its implementation will be assigned to the Principal Contractor.

Monitoring of environmental issues will be undertaken on a daily basis. If an unexpected finding is revealed during Site works, the following protocol is to be followed.

Unexpected findings protocol:

1. Cease disturbance of the affected portion of the site and evacuate the immediate area;
2. Contact the Principal Contractor and the Contractors Environmental Representative (CER).
3. Principal Contractor and CER to conduct an assessment of the location and extent of the unexpected finding.
4. High risk areas should be isolated and secured against unintended access.
5. Temporary encapsulation (sealing) of the high risk area to ensure no airborne spread of contamination occurs may be appropriate. This may involve clean soil, plastic sheeting.
6. Dust should be prevented by wetting the soil and drainage controls should be arranged where there is a potential for runoff to occur (runoff should be minimised).
7. Warning signs should be placed in the vicinity.
8. If the Principal Contractor and CER considers that the material warrants further investigation, the area is to be barricaded to provide an exclusion zone.

9. If necessary, environmental controls should be established to minimise the potential for migration of contaminants from the impacted area.

10. Principal Contractor to complete UFP form (Attachment I) and issue to all relevant stakeholders.

11. Further visual assessment and sample collection and analysis undertaken by a qualified environmental consultant. If necessary, samples will be sent to a NATA registered laboratory.

12. Evaluation of analytical data with respect to specific health investigation levels to be undertaken. Contaminated soil incident report amended with final classification of soils, including whether the soils are suitable for the proposed land use, need to be remediated or disposed of offsite to a suitably licensed facility. If soils are suitable to remain on site and/or the area is found to be clean then a work instruction will be provided by the CER to this effect, a waste classification letter must be provided prior to any offsite disposal.

13. If the material is subsequently found to contain asbestos, or other hazardous materials an appropriately licensed contractor will be employed to remove it. TPH impacted material can be stockpiled on site for treatment or removed following waste classification.

14. Affected areas reopened for earthworks, following clearance of site (based on laboratory results).

Notes:

1. Any suspected asbestos containing or TPH impacted material should be left in place and not disturbed. The CER will organise appropriate environmental professionals for further investigation purposes.

2. It is essential that material of differing compositions not be mixed.

3. All sampling for validation, waste classification or characterisation purposes will be carried out in accordance with the following documents:

   - NSW EPA (1995) Contaminated Sites: Sampling Design Guidelines;
   - NSW EPA (1994) Contaminated Sites: Guidelines for Assessing Service Station Sites;
   - DECC NSW (2009) Waste Classification Guidelines Part 1: Classifying Waste

4. Any unexpected findings encountered should be listed on a UFP register, which should include the action taken and the status of the unexpected find. A suitable register is included in Attachment 2.

5. Once an unexpected find has been identified and a UFP form filled in the Principal Contractor and CER should liaise with the client as to the appropriate means of managing the situation. This should include discussions around the handling, treatment and disposal of material, OH&S considerations and how the affected area will be validated and reopened for works.

6. Prior to closing out an unexpected find it will be important to ensure the appropriate documentation is obtained such as; photographs, the UFP form, waste classification letter(s) and a validation report or letter.

7. A UFP form should be completed on each day of the remedial works as part of the daily site records. This will ensure that the process is being undertaken even if no unexpected findings are encountered. The form should include the name, company and the position of the person undertaking the field observations.

ATTACHMENT 1 UNEXPECTED FINDINGS FORM

DLA environmental

Unexpected Findings Protocol Form

Date: _____

(To be completed by the Site Controller/Environmental Representative)

Site: 327-335 Burley Road, Horsley Park NSW

Personnel **Onsite:**

_____

Daily Summary:

1. Suspect material encountered during daily activities: Yes ☐ No ☐
(if yes compete 2 - 8).

2. CER contacted: Yes ☐ No ☐

3. UFP reference number (label occurrences sequentially 1, 2, 3, etc).

Description of material encountered:

4. Asbestos or suspected asbestos containing material present: Yes ☐ No ☐

5. **If No to 4** is there an obvious odour present (Note: **Do Not** inhale soil): Yes ☐ No ☐

6. Visible staining: Yes ☐ No ☐

7. Brief written description of material:

8. Material isolated: Yes ☐ No ☐

9. Location of contaminated material (include field sketch/map on back of this page if required):

10. Photographs taken: Yes ☐ No ☐

Name _____ **Signature:** _____

ATTACHMENT 2 UNEXPECTED FINDINGS REGISTER

TABLE 1 UNEXPECTED FINDINGS REGISTER – 327-335 Burley Road, Horsley Park NSW

UFP No	Date found	Suspect Material	Description	Recorded on UFP form (Y/N)	Action taken	Status