Disclaimer

*The information contained in the Remediation Strategy for the Site prepared by Coutts Cost Consulting dated 8 April 2022, the Stage 2 Contamination Assessment Report for the Site prepared by EMM Consulting Pty Limited dated 29 May 2020 and the Material Characterisation and Management Advice for the Site prepared by JBS&G Australia Pty Ltd dated 21 October 2020 (**Documents**) as provided in the Data Room is for your reference only. The Documents are only up to date as at the date of their respective publication. NSW Land and Housing Corporation (**LAHC**) and the authors of the Documents (**Authors**) do not warrant the completeness, accuracy or appropriateness of the Documents for your purposes. Please note the Documents were commissioned for LAHC's sole use based on a set of very specific instructions that were only relevant for LAHC with respect to the proposed development of this Project. LAHC does not represent or warrant that the Documents satisfy those instructions.*

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Stage 2 Contamination Assessment

600-660 Elizabeth Street, Redfern

Prepared for Land and Housing Corporation | Department of Planning, Industry and Environment
May 2020

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Stage 2 Contamination Assessment

600-660 Elizabeth Street, Redfern

Report Number

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Date

29 May 2020

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v3 Final

Prepared by	**Approved by**
	
Lachlan Lewis	**Anthony Davis**
Environmental Scientist	Associate Director
29 May 2020	29 May 2020

Executive Summary

ES1 Introduction

EMM Consulting Pty Limited (EMM) has been engaged by the New South Wales (NSW) Land and Housing Corporation (LAHC) to undertake a Stage 2 Contamination Assessment, geotechnical investigation and Hazardous Materials (HAZMAT) Assessment for the portion of land identified as 600–660 Elizabeth Street, Redfern NSW (hereafter referred to as "the Site"). This report relates specifically to the Stage 2 Contamination Assessment scope of works.

ES2 Objective

The objective of the Stage 2 Contamination Assessment is to provide contamination data in order to characterise soil, fill and groundwater conditions for site suitability and waste classification purposes.

ES3 Scope of works

EMM's scope of services comprised:

- review of available information regarding the soils, geology and hydrogeology in the vicinity of the Site;
- advancement of 21 boreholes, including three groundwater monitoring wells, and associated sampling works;
- laboratory analysis of selected soil and groundwater samples for contaminants of potential concern; and
- preparation of this report presenting the investigation findings through the development of a conceptual site model and appropriate recommendations in accordance with relevant legislative guidelines.

ES4 Key Findings

The key findings are:

- Concentrations of benzo(a)pyrene (B(a)P) variably exceeded the adopted Site investigation criteria across the Site, primarily in the surficial fill and natural organic peat layer. No discernible spatial distribution was identified.
- Concentrations of some metals, organochlorine pesticides (OCPs), polycyclic aromatic hydrocarbons (PAHs) and petroleum hydrocarbons exceeding the laboratory limit of reporting (LOR) were also reported. The reported contaminants of potential concern (CoPC) are generally consistent with that identified during previous investigations conducted at the Site.
- The reported contamination was primarily identified in shallow fill and natural peat underlying fill material. No obvious indicators of contamination were noted during the field investigation.
- ACM material was identified via laboratory analysis at two locations (BH19 and MW20) in fill material at a depth of metres below ground level (m bgl). The reported results and visual observations during sampling indicate that asbestos is not widespread within fill materials at the Site.

- Waste characterisation results indicate the material meets the general solid waste criteria for offsite disposal in accordance with NSW EPA (2014), except for asbestos containing materials (ACM) detected at two locations in the samples analysed (BH19 and MW20), which would be characterised as special waste.

- Toxicity characteristics leachate procedure (TCLP) testing of samples collected by EMM indicated that significant leaching of lead and B(a)P does not appear to be occurring indicating that there is a low potential for impacts from the contaminated material to Site groundwater.

- Reported laboratory results indicate that potential acid sulfate soils (PASS) and actual acid sulfate soils (AASS) were widely distributed across the Site. Reported results indicate the acid sulfate soils (ASS) may be associated with the presence of the organic peat material present below the fill layer. The management of ASS should be considered as part of future remediation and development planning.

- Groundwater depth was measured at depths ranging from 1 to 2 m bgl across three groundwater monitoring bores installed as part of this investigation. The results of the investigation indicated that groundwater beneath the Site is present as an unconfined, shallow aquifer within fill and natural soils.

- Concentrations of copper and zinc were above the adopted groundwater criteria (0.0014 mg/L and 0.008 mg/L) at a single monitoring well location (MW20). The reported results are considered to be typical of background groundwater conditions encountered in the area and generally unrelated to contamination identified in soil and fill materials.

ES5 Conclusion and recommendations

This Stage 2 Contamination Assessment was undertaken to provide information on soil and groundwater contamination conditions within the Site, in the context of the proposed future development. EMM considers that the Stage 2 Contamination Assessment has derived sufficient data to confirm the general characteristics of soil, fill and groundwater underlying the Site.

The results indicate that the Site is underlain by shallow fill material and a naturally occurring peat layer, which contain concentrations of total recoverable hydrocarbons (TRH) and B(a)P greater than the assessment criteria for the proposed high density residential, retail and commercial land uses. In addition, ACM was detected in shallow fill in the south-west corner of the Site, and the presence of actual or potential acid sulfate soils was identified across most of the Site.

In order to make the Site suitable for the proposed future landuse, development of a remediation strategy and associated environmental management measures is required. EMM notes that as part of the development, bulk excavation of subsurface material is proposed to allow for the construction of basement level car parking. This component of the development should be incorporated into the remedial strategy.

EMM recommends the following:

- preparation of a remediation action plan (RAP) detailing options for remediation and/or management and a recommended preferred strategy that will:
    - render the Site suitable for the proposed future land uses;
    - detail requirements for the appropriate treatment, management and offsite disposal of soils;
    - detail validation requirements to be implemented to demonstrate successful completion of the remedial works (including bulk excavation);
    - consider previous investigation findings; and

- detail the requirement (if any) for future/ongoing monitoring or management.

- preparation of an Acid Sulfate Soil Management Plan for the management of identified potential acid sulfate soils;

- preparation of a Construction Environmental Management Plan for the management of contamination (and any unexpected finds) during construction; and

- preparation of an Asbestos Management Plan for the management of identified asbestos.

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Glossary

Term	Description
AASS	Actual Acid Sulfate Soils
ACM	Asbestos Containing Materials
ADWG	Australian Drinking Water Guidelines
AF	Asbestos Fines
AHD	Australian Height Datum
ANZG	Australian and New Zealand Governments
ASC	Assessment of Site Contamination
AWQG	Australian Water Quality Guidelines
B(a)P	Benzo(a)pyrene
BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene
CCME	Canadian Council for Ministers of the Environment
CoC	Chain of Custody
CoPC	Contaminants of Potential Concern
CRC CARE	Cooperative Research Centre for Contamination Assessment and Remediation of the Environment
CSM	Conceptual Site Model
DDT	Dichlorodiphenyltrichloroethane
DNAPL	Dense Non Aqueous Phase Liquid
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EILs	Ecologically-based Investigation Levels
EMP	Environmental Management Plan
ENM	Excavated Natural Material
ESLs	Ecological Screening Levels
FA	Fibrous Asbestos
GAC	Groundwater Assessment Criteria
HILs	Health Investigation Levels
HSLs	Health Screening Levels
LCS	Laboratory Control Sample
LDPE	Low-Density Polyethylene
LNAPL	Light Non Aqueous Phase Liquid
LOR	Limit of Reporting
m bgl	Metres below ground level
NATA	National Association of Testing Authorities

NDD	Non Destructive Digging
NEPM	National Environment Protection Measure
NEPC	National Environment Protection Council
NHMRC	National Health and Medical Research Council
NL	Non-limiting
NSW DEC	NSW Department of Environment and Conservation
NSW EPA	NSW Environment Protection Authority
NSW OEH	NSW Office of Environment and Heritage
OCPs	Organochlorine Pesticides
OPPs	Organophosphate Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
PARCC	Precision, accuracy, representativeness, comparability and completeness
PASS	Potential Acid Sulfate Soils
PCBs	Polychlorinated Biphenyls
PID	Photoionisation Detector
PPE	Personal Protective Equipment
QA / QC	Quality Assurance and Quality Control
RPD	Relative Percent Difference
RSLs	Regional Screening Levels
SAC	Site Assessment Criteria
SAQP	Sampling, Analytical and Quality Plan
SAR	Site Auditor Report
SAS	Site Auditor Statement
SCID	Stored Chemical Information Database
SOPs	Standard Operating Procedures
SPOCAS	Suspension Peroxide Oxidation Combined Acidity and Sulfur
SPT	Standard Penetration Test
SWL	Standing Water Level
SWMS	Safe Work Method Statement
SVOC	Semi Volatile Organic Hydrocarbons
SSD	Species Sensitivity Distribution
TCLP	Toxicity Characteristic Leaching Procedure
TRH	Total Recoverable Hydrocarbons
USEPA	United States Environmental Protection Agency
USCS	Unified Soil Classification Scheme
WHO	World Health Organisation

1 Introduction

EMM Consulting Pty Limited (EMM) was engaged by the New South Wales (NSW) Land and Housing Corporation (LAHC) to undertake a Stage 2 Contamination Assessment, geotechnical investigation and Hazardous Materials (HAZMAT) Assessment for the portion of land identified as 600–660 Elizabeth Street, Redfern NSW (hereafter referred to as "the Site"). The site location is provided on Figure 1.1.

This report relates specifically to the Stage 2 Contamination Assessment scope of works. The stage 2 Contamination Assessment has been completed in accordance with the scope of works outlined in the EMM proposal to LAHC dated 31 October 2019.

1.1 Background

It is understood that LAHC seeks to provide new social housing and the Site presents a valuable opportunity to deliver a community focused precinct centred on improved public domain and associated facilities. The Site forms part of the wider Redfern social housing estate which has been declared a State Significant Precinct (SSP). Building on previous studies, the Site requires detailed investigations to assess the capacity of existing infrastructure (utilities and transport) and constraints (contamination and geotechnical).

The purpose of the Stage 2 Contamination Assessment is to inform the redevelopment of the Site in line with the NSW Government "Future Directions for Social Housing in NSW" strategy. This assessment will provide baseline investigation data which can be used to inform future planning for the Site and highlight constraints early in the planning process.

Based on information and concept development plans provided by LAHC, the proposed development may consist of a mixture of social, low cost and general residential housing, retail, a police citizens youth club (PCYC – currently on Site) with limited areas of open space. No areas of deep soil planting have been identified or proposed by LAHC at the time this document was prepared. The development is anticipated to incorporate up to three basement levels for car parking across the entire Site footprint. Therefore, the proposed development will likely require excavation and disposal of soil and fill materials across the entire Site footprint to at least the depth of the proposed basement levels.

1.2 Objective

The objectives of the Stage 2 Contamination Assessment are to provide contamination data in order to characterise soil, fill and groundwater conditions for Site suitability and waste classification purposes.

1.3 Data quality objectives

In determining the type, quantity and quality of data needed to support decisions relating to the environmental condition of the Site, EMM undertook the seven-step process to develop the data quality objectives (DQOs) in accordance with the SAQP (AECOM, 2018b).

In developing the DQOs for the investigation, an initial phase of review was undertaken to appraise relevant and available background information and to develop a preliminary conceptual site contamination model identifying the areas of the Site that required investigation for the purpose of assessing the requirements for either management and/or remediation during the redevelopment of the Site. The DQOs are discussed in Appendix A.

1.4 Scope of work

Based on the findings of a Phase 1 Environmental Site Assessment (ESA) and Geotechnical Desktop Study report (AECOM, 2018a) previously prepared for the Site, EMM proposed the following Stage 2 Contamination Assessment scope:

- review of the existing SAQP for the Stage 2 Contamination Assessment prepared by AECOM (2018b) for adequacy in meeting LAHC's objectives prior to undertaking any intrusive works;
- clearance of underground services via a Dial-Before-You-Dig search, review of LAHC-supplied services plans, and electronic services locator;
- drilling a total of 21 contamination specific boreholes across the Site at the locations shown in Figure 4.1;
- collection of soil samples from each of the 21 borehole locations;
- conversion of three borehole locations (MW11, MW20 and MW21) to groundwater monitoring wells, as shown in Figure 4.1;
- collection of groundwater samples from the three newly installed groundwater monitoring wells following purging and well development;
- gauging of groundwater levels at each new monitoring well location;
- laboratory analysis of samples was conducted by National Association of Testing Authorities (NATA) certified methods using NATA accredited laboratories (Australian Laboratory Services [ALS] and Envirolab);
- comparison of soil and groundwater analytical results against site assessment criteria (SAC) selected based on the proposed land uses at the Site;
- survey of soil and groundwater sampling locations by a registered surveyor; and
- preparation of this report, discussing the methodologies, the investigation results and conclusions regarding the requirements for management and/or remediation of the Site during the future redevelopment works.

1.5 Regulatory framework

An overview of NSW legislation informing this assessment is provided below.

1.5.1 NSW Contaminated Land Management Act 1997

The NSW Contaminated Land Management Act 1997 (CLM Act) aims to promote the better management of contaminated land. The objectives of the CLM Act are to establish a process for investigating and (where appropriate) remediating land areas where contamination presents a significant risk of harm to human health or some factor of the environment.

The NSW Environment Protection Authority (EPA) has powers to respond to contamination that is causing significant risk of harm to human health or the environment. The NSW EPA can direct landowners to investigate or remediate contaminated land and requires landowners to report contamination where there is a significant risk of harm (duty to report). The CLM Act may be triggered if contamination migrates beyond site boundaries.

1.5.2 NSW Protection of the Environment Operations Act 1997

The NSW Protection of the Environment Operations Act 1997 (POEO Act) is administered by the NSW EPA. It prohibits any person to cause pollution of waters, land or air and provides penalties for specified offences. The POEO Act enables the NSW Government to set out explicit protection of the environment policies and adopt more innovative approaches to reducing pollution. The POEO Act also requires "scheduled activities" listed at Schedule 1 to the POEO Act to be carried out in accordance with an Environment Protection Licence (EPL).

1.5.3 Environmental Planning and Assessment Act (2000) and State Environmental Planning Policy (SEPP) no.55 – Remediation of Land

State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) is a planning instrument under the Environmental Planning and Assessment Act 2000 (EPA Act) that applies to State land.

SEPP 55 Clause 7 outlines considerations regarding contamination and remediation in determining development applications by local government authorities and provides requirements for investigations to be undertaken where a change of land use is proposed.

SEPP 55 also specifies when remediation works will require Development Consent from the Local Government Authority (LGA).

1.6 Guidelines

This contamination assessment has been completed in general accordance with the requirements of:

- National Environment Protection (Assessment of site Contamination) Measure (1999), including 20 Schedules and Appendices (B1 to B9), and the NEPM Toolbox, updated April 2013 (the ASC NEPM);
- NSW Office of Environment and Heritage (2011) Guidelines for Consultants Reporting on Contaminated Sites;
- NSW Department of Environment and Conservation (2007) Guidelines for the Assessment and Management of Groundwater Contamination;
- Standards Australia (2005) Australian Standard AS4482.1 - Guide to the Investigation and Sampling of sites with Potentially Contaminated Soil. Part 1: Non-volatile and Semi-Volatile Compounds;
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018) Guidelines for Fresh and Marine Water Quality Australian and New Zealand and Australian State and Territory Governments;
- Standards Australia (1999) Australian Standard AS 4482.2 Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances; and other relevant guidelines and legislation; and
- NSW EPA (1995) Sampling Design Guidelines.

1.6.1 Asbestos management

Guidelines regarding the management of asbestos which may be applicable to this assessment are as follows:

- WorkCover NSW 2014, Managing asbestos in or on soil;
- SafeWork NSW 2019, How to Manage and Control Asbestos in the Workplace:

- removal of asbestos (if present) must be undertaken by an appropriately licensed Asbestos Removal Contractor. A Class A or a Class B Asbestos Removal Licence must be held for the removal of non-friable (or bonded) asbestos;

- Western Australia Department of Health 2009, Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia:

  - the NSW government and National Environment Protection Council have accepted the WA DOH (2009) guidelines for management of asbestos impacted soils.

1.6.2 Acid sulfate soils

Acid sulfate soil sample and analysis were completed in general accordance with the requirements of:

- Water Quality Australia (2018) National acid sulfate soils sampling and identification methods manual; and

- NSW Acid Sulfate Soils Management Advisory Committee (1998) Acid sulfate soil manual.

Source: EMM (2020); DFSI (2017)

0 200 400 m

GDA 1994 MGA Zone 56

N

KEY

- Site boundary
- Local government area
- Major road
- Rail line
- Watercourse/drainage line
- Main road (refer to inset)
- NPWS reserve (refer to inset)
- State forest (refer to inset)

Site location

600-660 Elizabeth Street, Redfern
Detailed site investigation
Figure 1.1

EMM creating opportunities

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2 Site identification

Table 2.1 Site Identification

Item	Description
Site Address	600−660 Elizabeth Street, Redfern NSW 2016
Legal Description[1]	Lot 1 DP 1249145
Site Area[2]	Approximately 1.077 ha
Site Owner	NSW Land and Housing Corporation
Local Government Authority	Council of the City of Sydney
Current Zoning[3]	Zone No. 2 (b) Residential (Medium Density) – 600 to 614 Elizabeth Street, Redfern Zone No. 5 Special Uses (Activity Centre) – 616 to 660 Elizabeth Street, Redfern
Current Land Use	Part vacant and South Sydney Police Citizens Youth Club (PCYC)
Proposed Land Use	Social housing, affordable housing, general residential, retail, PCYC (commercial) with up to three basement levels
Site Elevation (m AHD)[4]	30
Site Location	Figure 1.1
Site Layout	Figure 4.1

Notes:

1. Section 149 certificates obtained from City of Sydney Council lists 600-614 Elizabeth Street as Lots 3, 4 and 5 DP 456634 and 616-660 Elizabeth Street as Lots 7 to 11 DP 35793 which are not listed on the current certificate of title or on the NSW Government Spatial Information Exchange
2. Spatial Information Exchange Viewer (www.maps.six.nsw.gov.au)
3. Council of the City of Sydney – South Sydney Local Environmental Plan (LEP) 1998 (as amended)
4. Lotsearch (12 March 2018) *Environmental Risk and Planning Report, 600-660 Elizabeth Street, Redfern, NSW 2016*, Lotsearch Reference: LS002993

3 Previous investigations

3.1 ERM (2001) Phase 1 Site Contamination Assessment

ERM Australia Pty Limited (ERM) was engaged by Housing Finance Investment Group to undertake a Phase 1 Contamination Assessment of a number of properties located on Elizabeth Street, Redfern. At the time of the Contamination Assessment, the land located between Elizabeth, Phillip, Moorehead and Kettle Streets was proposed to be redeveloped to comprise 88 new public housing dwellings on the eastern street block and a six-storey housing development comprising 162 residential apartments for private sale on the western street block. The land assessed by ERM as part of the Contamination Assessment incorporated the Site and the adjacent land located immediately east of the Site on Moorehead Street.

The objective of the Contamination Assessment was to:

- determine if there was any human health or environmental issues that would preclude the redevelopment of the land; and
- assess the need for any additional investigation works based on the findings of the Contamination Assessment report.

The scope of the Contamination Assessment involved the review of available information including historical documents, aerial photographs and maps to establish the history of activities undertaken on the land. A site inspection was undertaken and an intrusive investigation comprising drilling and sampling of soil from 10 boreholes. Soil samples were field screened using a photoionisation detector (PID) for volatile organic compounds (VOCs) and soil samples were analysed for heavy metals (lead only in BH2 to BH5), organochlorine pesticides (OCPs) and polycyclic aromatic hydrocarbons (PAHs).

At the time of the investigation the PCYC was present on the southern portion of the Site. Residential properties on Elizabeth Street within the northern portion of the Site were observed to comprise semidetached two-storey houses. It was noted that small gardens were located at the front and back of the houses. At the time of the inspection no evidence of underground storage tanks (USTs) was noted. During the investigation, anecdotal evidence supplied by personnel from the PCYC indicated that the corner of Elizabeth and Phillip streets may have historically been a small rubbish disposal area. A borehole was advanced in this area to determine if any layers of fill were present. No evidence of buried waste was identified.

The sampling regime was undertaken with consideration to access limitations around the PCYC, various housing commission properties and in coordination with the requirements of the geotechnical investigation. ERM noted that the investigation was not intended to comply with NSW EPA guidelines and therefore at the time of the Contamination Assessment it was envisaged that additional assessment works would be required to provide adequate site coverage.

Soil samples were collected from each borehole around approximately 0.2 to 0.5 metres below ground surface (m bgs) and analysed. ERM noted that the intent was to characterise the near surface fill material. Soil samples were collected directly from solid stem augers. It is noted that composite samples were collected combining soil from eight locations.

The sampling location plan for this investigation indicates that five (BH1 to BH5) of the 10 boreholes were located on the Site located at 600-660 Elizabeth Street Redfern and five boreholes (BH6 to BH10) were located to the east of the Site between Moorehead and Walker Streets. Fill materials were encountered in all five boreholes ranging from 0.6 (BH2 north-eastern portion) to 2.0 (BH1 south-eastern corner adjacent PCYC) m bgs. Fill materials comprised gravelly sand, sand and clayey sand with brick inclusions. Black staining was noted in BH1 within fill materials. Fill materials were underlain by layers of natural Peaty Sand and Sand. Boreholes were terminated

between 3 and 4 m bgs. Saturated soils were encountered in permeable soil materials at approximately 2.5 to 3.0 m bgs.

The soil analytical results indicated the potential presence of lead and PAHs in the shallow fill.

3.2 Golder (2005) Site Audit Report and Site Audit Statement

EMM reviewed the following reports:

- Golder Associates Pty Ltd (Golder) (2005) Site Summary Audit Report (Statutory) Stage 2 Environmental Site Assessment of Lot 1 & 2 in DP435765, and Lots 3, 4 & 5 in DP456634 Redfern, NSW, June 2005; and

- NSW EPA Accredited Site Auditor Kylie Lloyd of Golder Associates (23 June 2005) NSW Site Auditor Scheme Site Audit Statement (Site Audit Statement No. KJL003).

The findings of the Site Audit Report (SAR) and Site Audit Statement (SAS) are summarised below:

- The SAS was prepared for land including part of the Site, comprising Lots 3, 4 and 5 in DP 456634 listed on the SAS as 600-602 Elizabeth Street, Redfern NSW 2016 and for land to the immediate east of the Site between Walker Street and Moorehead Street and bounded by Kettle Street and Phillip Street listed as Lots 1 and 2 in DP435765 comprising Curtis Place, 44-52 Moorehead Street, 57-75 Walker Street and 35 Kettle Street, Redfern NSW.

- The SAS was carried out at the request of Ms Helen Wood on behalf of the Department of Housing and was based on the findings of a Stage 2 ESA prepared by Parsons Brinkerhoff Australia Pty Limited (PB) (December 2004) which was undertaken across the land described above. It is noted the PB report was not available for review as part of this investigation, however the findings of the report were included in the summary of the SAR. The SAS was issued to review the status of the land with respect to ground contamination based on investigations by PB (2004) and to conclude whether the land was suitable for the intended redevelopment of medium density residential landuse.

- Anecdotal information obtained by PB (2004) indicated that the land was occupied by residential terraces in the 1940s which were demolished in the 1950s. Demolition waste was reportedly spread across the land prior to the construction of the current buildings. Anecdotal information obtained by PB (2004) also indicated a small rubbish dump was once located on the corner of Elizabeth and Phillip streets. The Auditor noted that the source of fill on the land was not definitive and agreed that a Phase 2 Investigation was warranted.

- The SAS noted that the ERM (2001) Phase 1, a Sampling Analysis and Quality Plan (SAQP) prepared by PB (May 2004) and a letter of correspondence from PB dated 28 February 2005 had also been reviewed.

- As part of the Phase 2 ESA undertaken by PB, a total of 32 boreholes (13 [BH101 to BH113] on the western portion of the land (ie within the Site) were drilled to a maximum depth of 3 m bgl to allow for the collection of soil samples at the surface, 0.3−0.5 m and then at 0.5 m intervals. Approximately two to four primary samples per borehole (total 63 primary samples – 28 collected from fill materials and 35 from natural soils) were analysed for heavy metals, total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and xylenes (BTEX), PAHs, OCPs, polychlorinated biphenyls (PCBs) and asbestos.

- PB (2004) installed four groundwater monitoring wells (MW1 to MW4) of which MW1 and MW2 were installed on the western portion of the land (ie within the Site). The depths of well installation were unknown from reviewing the SAR (Golder, 2005). Standing water levels were noted to range from 2.1−3.9 m bgl. Four primary groundwater samples were collected and analysed for heavy metals, TPH, BTEX and PAHs.

- Observations undertaken during drilling indicated the land comprised sandy topsoil fill to 0.2 m bgl which was underlain by sand fill with demolition rubble – broken bricks and concrete, glass, metal, coal, charcoal and ash inclusions. The maximum depth of fill materials was 1.5 m bgl with the exception of BH126 on the eastern boundary adjacent Moorehead Street (ie off-Site) where fill materials were encountered to 3.5 m bgl. Natural sands were encountered at an average depth of 1.0 m bgl. In the western portion of the land (ie within the Site) it was noted that a band of peaty clay approximately 2 m in thickness was present underlying the natural sand.

- The soil analytical results were compared to NSW EPA (1998) Guidelines for the NSW Site Auditor Scheme – Residential with gardens and accessible soil criteria (health investigation level [HIL]) and provisional phytotoxicity criteria (ecological investigation level [EIL]) and NSW EPA (1994) Guidelines for Assessing Service Station Sites and groundwater analytical results were compared to Australia and New Zealand Environment Conservation Council (ANZECC) (2000) Guidelines for Fresh and Marine Water Quality – trigger values for 95% species protection in freshwater.

- The soil analytical results indicated concentrations of lead, toluene, TPH C_{10}-C_{36}, benzo(a)pyrene (B(a)P) and sum of PAHs in selected samples exceeded the HIL and concentrations of copper, lead, zinc and mercury in selected samples exceeded the EIL. No asbestos was detected in any of the 26 samples analysed.

- Three soil samples were collected from peaty clay and were tested for field pH and post oxidation with hydrogen peroxide. The results indicated potential acid sulfate soils.

- The groundwater analytical results indicated concentrations of chromium, copper, lead and zinc above the ANZECC (2000) criteria, however PB (2004) reported they were likely to reflect regional groundwater quality and not representative of site-derived contamination. Concentrations of B(a)P and sum of PAHs were detected in MW3 (located on the northern boundary of the eastern portion, ie off-Site) and exceeded the ANZECC (2000) criteria.

- The Auditor noted that contaminated material in the form of heavy metals, namely, lead, zinc, copper and mercury are present in the fill material, to depths of up to 2.5 m in some locations. Elevated concentrations of TPH and PAH, in the form of B(a)P, were identified. The TPH and PAH exceedances were reported in both fill and natural material. The natural organic/clay material below the Site were reported to contain elevated concentrations of TPH fractions. PB performed subsequent speciation of examples of this material, reporting that as the aliphatic fractions were greater than the aromatic fractions, the elevated TPH fractions are likely to be from a natural source. The Auditor did not agree with this assertion and considered that further evaluation of this material was required as part of the Remediation Action Plan. The Auditor considered that the concentrations of metals, TPH and PAH present at the Site rendered the land unsuitable for development for residential purposes. The Auditor agreed with PB that the material should be remediated and managed and that a Remediation Action Plan was required. The Auditor concurred with the PB conclusions that the exceedances of copper, lead and zinc in groundwater were not significant and possibly representative of background conditions.

- The Auditor assessment of risk indicated the following:

    - potential receptors: residents, workers, visitors and trespassers exposed to any surface soils and utility or construction workers involved in excavations on the land forming the subject of the investigation;

    - exposure pathways for surface soils – dermal contact, inhalation of dust and incidental ingestion and subsurface soils – dermal contact, inhalation of dust and incidental ingestion;

- elevated concentrations of lead were identified on the south-east of the land where access to soils is currently limited due to the presence of grass or asphalt;
- elevated concentrations of TPH to a depth of 1.5 m bgl across the western portion of the land (i.e. within the Site). The Auditor recommended additional evidence be required such as TPH analysis of soil samples using silica gel clean up to determine the potential source;
- elevated concentrations of PAH were noted in the top 0.5 m of material across the land;
- PB concluded that based on the Phase 2 findings there was insufficient evidence of a historical rubbish dump in the south-west corner of the Site;
- there is potential for acid sulfate soils across the land (including the Site);
- the risk associated with exposure to surface soils, impacted with concentrations of contaminants in exceedence of HILs, by residents on-site in its current state is considered to be significant;
- the contaminant levels in soils have the potential for exposure of organisms and indicate that ecological impacts, if relevant, from the fill would be notable;
- given the land will be redeveloped for residential land use, aesthetic impacts (ie visual and odour), must be addressed during the redevelopment; and
- the Auditor considered that based on the results of the soil and groundwater investigation, the potential for migration of contaminants from the land was considered to be low.

• The SAS indicated that the nature and extent of the contamination has been appropriately determined and "The Auditor concludes that the land in its present form is not suitable for medium density residential land use, and to achieve suitability a Remediation Action Plan is required to address the contamination encountered during the Stage 2 Environmental Site Assessment." It is noted the eastern portion of the land (ie off- Site) between Moorehead and Walker streets was redeveloped with high density residential land use post-2004.

3.3 PB (2007) Remediation Status Letter

Documents obtained by LAHC from City of Sydney Council included a letter addressed to LFA Pty Ltd (an architectural firm who designed "Redfern East Social Housing Project" immediately east of the Site) written by Parsons Brinckerhoff Australia Pty Limited (PB) dated 14 May 2007 titled *Re: Findings of Phase 2 ESA and remedial requirements, Redfern*.

The letter noted that the land comprising Lot 1 and 2 of DP 435765 was "proposed to be developed for 40 town houses and 66 apartments (following demolition of the existing housing and remediation)." In the letter PB concluded that "while potential environmental constraints to redevelopment of the Site have been identified, the previous Phase 2 ESA concluded that by excavation and off Site disposal of the impacted soils the Site can be adequately remediated to a level suitable for residential land use. Based upon the extent and nature of the contamination PB considers that the Site can be remediated to a level suitable for ongoing residential (with soils access) land use."

3.4 AECOM (2012) Phase 1 Contamination Assessment

AECOM prepared a Phase 1 contamination assessment for Scott Carver Pty Ltd on behalf of NSW Department of Finance and Services (DoFS) for two public housing sites at Redfern and Waterloo (the Study Area) as documented

in *Phase 1 Contamination Assessment, Redfern Waterloo Sustainable Servicing and Supporting Infrastructure*, 13 August 2012. It is noted that the Study Area assessed by AECOM (2012) comprised the Site within the Redfern (eastern) portion as well as land immediately north and east of the Site. It also included the Waterloo (western) portion located approximately 350 m south-west of the Site.

The purpose of the assessment was to evaluate the land use suitability and potential contamination issues of the Study Area.

The objectives of the Phase 1 contamination assessment were to carry out a broad scale evaluation of known or likely areas of contaminated land within and around the Study Area, specifically to:

- identify known or likely sources of contamination within the Study Area that may affect the outcomes of the Urban Renewal Study (URS);
- identify specific locations within the Study Area which are likely to be unsuitable/require remediation for residential re-development based on historical/current land use activities; and
- provide recommendations on any further contamination investigations required to support changes in zoning or for future divestment purposes.

Potential sources of contamination that were identified during this assessment, which may impact the condition of soil and groundwater within the eastern portion of the Study Area, include the following:

- within eastern portion of the Study Area:
  - use of fill material of unknown origin across the Study Area that could potentially contain contaminants of potential concern (CoPC) including asbestos, heavy metals, TPH and PAHs;
  - historical use of asbestos containing material (ACM) within buildings erected since the 1920s; and
  - historical use of lead-based paints on the interior and exterior of historical and current residential buildings.
- surrounding the eastern portion of the Study Area:
  - sites listed on the office of Environment and Heritage (OEH) Contaminated Land Record of Notices, located to the south and east of the Study Area, on Bourke Street and Young Street;
  - contaminated sites notified to the EPA;
  - surrounding retail petroleum service stations;
  - surrounding dry cleaning outlets; and
  - groundwater beneath the Study Area that may be contaminated from the historical commercial and industrial land uses in surrounding areas.

Specific locations/areas could not be identified where fill material may have been used or lead and/or asbestos contamination is likely to be present as it may be variably present across the entire Study Area.

The Phase 1 contamination assessment identified a generally low potential for significant contamination to be present within the Study Area. However, based on the size of the proposed redevelopment, the report identified there was a potential for contamination to be present which may not be consistent with the proposed redevelopment plans. AECOM recommended that, for due diligence purposes, Stage 2 intrusive investigations

should be undertaken to further evaluate the contamination status of the Study Area. It was noted that the investigations could be undertaken in a staged approach in accordance with the requirements of the overall Study Area Master Plan.

3.5 AECOM (2018a) Phase 1 Environmental Site Assessment and Geotechnical Desktop Study

AECOM was commissioned by NSW LAHC to prepare a Phase 1 Environmental Site Assessment (ESA) and Geotechnical Desktop Study in May 2018 of the Site.

The key findings of the Phase 1 ESA are summarised below:

- The Site has primarily historically been used for a mixture of residential, commercial and/or light industrial purposes (including agriculture and use of the site by various state transport authorities and storage of materials, equipment, plant, machinery), while the surrounding area has been used for commercial/ industrial (typically north, south and west of the Site), residential (surrounding the Site) and recreational (east of the Site) purposes.

- A Stage 2 soil and groundwater investigation undertaken by PB (2004) identified concentration of lead, B(a)P, sum of PAHs, toluene, TPH C_{10}-C_{36} in soil, heavy metals and up-gradient B(a)P and sum of PAHs in groundwater exceeding the adopted assessment criteria for the proposed residential land use.

- A Site Audit Statement (SAS), (Golder, 2005) concluded that the Site was not suitable for the proposed medium density residential land use and a Remediation Action Plan (RAP) was required to address identified contamination (PB, 2004). It is noted that a RAP has not been prepared to date, and that the site is yet to be remediated to a condition suitable for the proposed land use.

- The preliminary conceptual site model (CSM), (presented in Section 7.0 of the Phase I ESA (AECOM, 2018a)) identifies potential sources of contamination, exposure pathways and receptors. Potential sources of contamination identified in the Phase 1 ESA which may impact the condition of soil and groundwater within the Site and its surrounds include the following:

    - commercial and industrial properties in the immediate surrounding areas including car servicing and mechanical repairs, manufacturers and a laundromat (Waterloo Coin Laundry);

    - use of fill material of unknown origin: containing or impacted by contaminants;

    - historical use of ACM within buildings and structures erected since the 1920s;

    - historical use of lead-based paints on the interior and exterior of historical and current buildings;

    - concentrations of lead and PAHs in soil identified as part of the ERM (2001) investigation; and

    - known concentrations of lead, B(a)P, sum of PAHs, toluene, TPH C_{10}-C_{36} in soil, heavy metals and up-gradient B(a)P and sum of PAHs in groundwater and potential acid sulfate soils as noted in the SAS (Golder, 2005) and as identified by PB (2004).

Based on the findings of this Stage 1 ESA and preliminary CSM developed for the Site, AECOM recommended undertaking the following additional stages of work:

- completion of a Stage 2 contamination assessment to characterise the nature and extent of potential soil and groundwater contamination, targeting the potential areas of concern identified within the Site and the

proposed locations of excavation works. Soil and groundwater samples should be analysed for the identified CoPCs listed in Section 7.1 of the Phase I ESA (AECOM, 2018a) and assessed in accordance with the ASC NEPM, 2013. The scope of the initial Stage 2 contamination assessment would be informed by the proposed development plans for the Site and existing access constraints; and

- completion of a hazardous materials (HAZMAT) survey of buildings and associated infrastructure erected since pre-1960s located in the southern portion of the Site prior to the commencement of demolition works.

3.6 Douglas Partners (2019) Report on Hazardous Building Materials

Douglas Partners Pty Ltd (Douglas Partners) was engaged to conduct a hazardous building materials (HBM) survey of the PCYC at 600−660 Elizabeth Street, Redfern NSW. The survey was undertaken to assess the location, extent and condition of asbestos-containing materials (ACM) and other HBM. The survey comprised a non-destructive, non-intrusive visual inspection supplemented by a limited program of sample collection and laboratory analysis.

The results of the survey indicated that the following HBM were identified or assumed present during the survey:

- friable and non-friable asbestos;
- synthetic mineral fibre (SMF);
- lead paint;
- lead dust;
- PCB; and
- ozone depleting substances (ODS).

The report recommended that HBM should be removed prior to any significant disturbance including from maintenance, refurbishment and demolition work.

3.7 Douglas Partners (2020) Report on Geotechnical Investigation

Complementary to the Stage 2 Contamination Assessment, Douglas Partners was engaged to conduct a geotechnical investigation of the Site to evaluate ground conditions and inform geotechnical requirements for the proposed development. The geotechnical investigation comprised the drilling of three boreholes (BH301 to BH303) to depths of between 17.83 m and 25.65 m bgl using a track-mounted drilling rig with 110-mm diameter continuous spiral flight augers/solid flight augers and rotary wash boring within the soil and NMLC (ie 50-mm diameter) diamond core drilling techniques in the bedrock. Standard penetration tests (SPT) were carried out at regular depth intervals to assess the soil strength and to collect samples for tactile assessment and laboratory testing.

Cone penetration tests (CPTs) were undertaken at 6 locations (CPT304A, and CPT305 to CPT309) using a ballasted truck-mounted test rig to push a 35-mm diameter cone tipped probe into the soil with a hydraulic ram system. Continuous measurements were made of the end-bearing pressure on the cone tip and the friction on the sleeve located immediately behind the cone.

The geotechnical investigation identified fill material to 0.8 m bgs overlying a peat/organic layer extending to 2.4 m above sand grading to stiff clay with firm peat and silty clay bands overlying sandstone bedrock at depths between 6.8 to 14.0 m bgs. Groundwater was encountered at depths of between 1.4 m (RL 30.0 m) and 3.5 m (RL 31.1 m).

4 Site condition and surrounding environment

4.1 Site location and description

At the time the field component of this Stage 2 Contamination Assessment was undertaken (December 2019) the northern portion of the Site was vacant and comprised grassed open space and trees surrounded by a chain wire fence. The southern portion of the Site was occupied by South Sydney PCYC and comprised a building in the south-western portion of the Site (approximately 1,600 m^2) and sporting courts including basketball and playing equipment in the south eastern portion of the Site surrounded by chain wire fence (approximately 1,500 m^2).

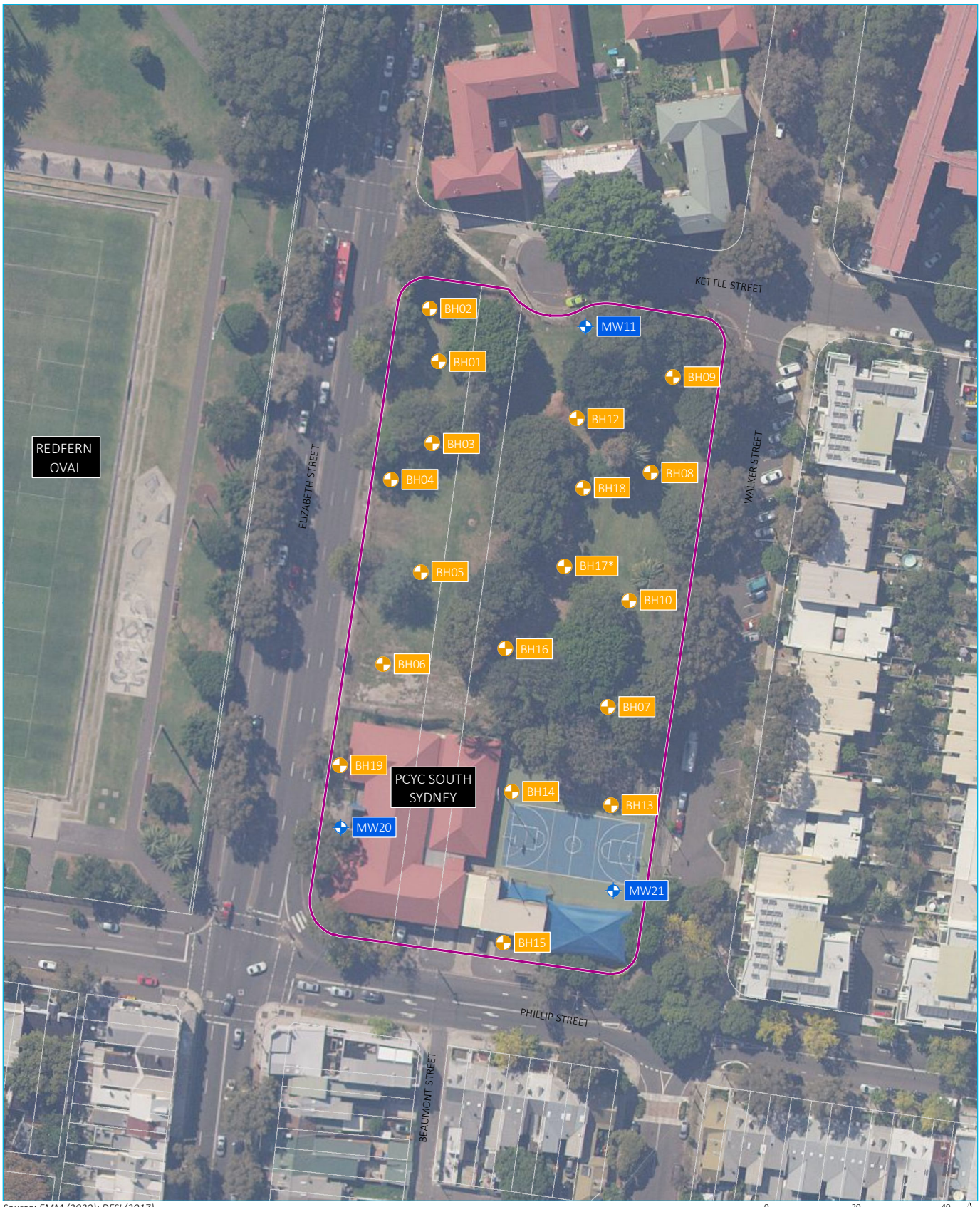
The layout of the Site is provided on Figure 4.1.

4.2 Surrounding land use

Table 4.1 summarises the surrounding land uses.

Table 4.1 Surrounding land uses

Direction from Site	Land use description
North	Kettle Street cul de sac, followed by medium to high density social housing and Annie Green Court aged care facility. Further north, Redfern Street and additional high-density social housing and low to medium density residential land use. Some commercial premises (cafes, restaurants and shops) are present to the north-west along Elizabeth Street and Redfern Street.
East	Walker Street cul de sac – medium to high density residential land use, high density social housing to the north-east. Further east, Morehead Street, high density social housing including Poets Corner shopping centre comprising a medical centre, a preschool and a pharmacy.
South	Phillip Street – low to medium density residential land use and commercial premises along Elizabeth Street. KU James Cahill Preschool is located to the south-west along Raglan Street.
West	Elizabeth Street, Redfern Park and Redfern Oval. Further east lies Chalmers Street, Redfern Community Hall, Woolworths Redfern, The Salvation Army, Redfern War Memorial and low to medium density residential land use.



Source: EMM (2020); DFSI (2017)

Note: * Location for BH17 approximated - could not be located during survey

0 20 40 m

GDA 1994 MGA Zone 56

N

KEY

Site boundary

Cadastral boundary

Sampling location

Borehole

Monitoring well

Site layout and sampling locations

600-660 Elizabeth Street, Redfern
Detailed site investigation
Figure 2

EMM creating opportunities

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4.3 Topography and drainage

The elevation of the Site is approximately 30 m Australian Height Datum (AHD) and is predominantly flat with slight undulations and a very slight slope towards the south. The surrounding land is relatively flat with slight slopes down to the south and south-west.

The nearest surface water body is the concrete lined drain of Sheas Creek, located approximately 1 km south-west of the south-western Site boundary. Sheas Creek flows in a south-westerly direction to Alexandra Canal which joins the Cooks River at the north-western boundary of Sydney Airport and subsequently flows south and east to connect to Botany Bay. The surface of the northern portion of the Site is predominantly unsealed grass cover and the southern portion of the Site is predominantly sealed with concrete or bitumen. Any overland flow is anticipated to flow into the stormwater drains surrounding the Site.

4.4 Geology

The Sydney 1:100,000 Geological Series Sheet indicates that the Site is located within an area of medium to fine grained 'marine' sands with podsols (Qhd) of the Quaternary era.

The following geological units may be encountered in the locality:

- Quaternary era: man-made fill (dredged estuarine sand and mud, demolition rubble, industrial and household waste) overlying silty to peaty quartz sand, silt and clay with ferruginous and humic cementation in places and common shell layers (mf/Qha);
- Quaternary era: medium to fine grained, marine sand with podsols (Qhd), commonly referred to as 'Botany Sands';
- Ashfield Shale (Rwa); and
- Hawkesbury Sandstone or possibly Mittagong Formation over Hawkesbury Sandstone.

Ashfield Shale is expected below the alluvium across most of the Site and surrounding area. However, the boundary between the Ashfield Shale and Hawkesbury Sandstone is not well defined in this area. The known unit extents indicate that the boundary lies between Redfern Station and the Moore Park Entertainment Precinct.

The geological sheet describes the Ashfield Shale as black to dark grey shale and laminite. The Mittagong formation is an intermediate unit sometimes present between the Ashfield Shale and Hawkesbury Sandstone. It is sometimes referred to as transition beds between the fine-grained Ashfield Shale and relatively coarse-grained Hawkesbury Sandstone and is described as shale, laminite, and medium grained quartz sandstone. The Hawkesbury Sandstone is described as medium to coarse-grained quartz sandstone, very minor shale and laminite lenses.

A dyke is located approximately 600 m north-east of the north-eastern boundary of the Site. The dyke runs south-west to north-east and extends from north-west of Redfern station to the south-eastern corner of Prince Alfred Park.

4.5 Hydrogeology

The Bureau of Meteorology Australian Groundwater Explorer indicated that the aquifers on the Site and surrounding areas are likely to comprise porous, extensive aquifers of high productivity.

A search of the Bureau of Meteorology Australian Groundwater Explorer and NSW Department of Planning, Industry and Environment (DPIE), Office of Water "Pinneena" database indicated that 24 registered groundwater bores were located within a 400 m radius of the Site. The majority of bores were located along Bourke Street, Waterloo

industrial area and were installed for monitoring purposes with the exception of one bore used for recreation purposes located in Redfern Oval to the west of the Site. Given that the Site is located in a metropolitan area with access to reticulated water, it is considered unlikely that residents would be accessing bore water on Site for drinking or irrigation purposes.

During groundwater gauging the depth to groundwater was measured to be between 1.39 and 2.00 m bgl (refer to Section 8.5.1 for gauging data).

4.6 Potentially sensitive receptors

Based on the current and future potential land use of the Site the potential human receptors for contamination that may be present at the Site were identified as:

- current and potential future on Site workers and visitors;
- current and potential future on Site intrusive maintenance workers;
- beneficial users of unregistered groundwater bores close to the Site;
- current and potential workers, visitors and intrusive maintenance workers on adjacent and nearby commercial properties; and
- Sheas Creek, located approximately 1 km south-west of the Site. Given that Sheas Creek is a highly disturbed ecosystem which is unlikely to be used for recreational purposes, it has been included as a potential human receptor as a conservative measure.

A groundwater bore search indicated that 24 groundwater bores were registered within a 400 m radius of the Site. The majority of bores were located along Bourke Street, Waterloo industrial area and were installed for monitoring purposes with the exception of one bore used for recreation purposes located in Redfern Oval - cross-gradient and to the west of the Site and is therefore not considered to be a potential receptor of potential contamination from the Site. Given that the Site is in a metropolitan area with access to reticulated water, it is considered unlikely that residents would be accessing bore water on Site for drinking or irrigation purposes in the foreseeable future.

The anticipated groundwater direction indicates that the Sheas Creek would be the nearest receiving aquatic environment of groundwater and infiltrated surface water from the Site. Consequently, Sheas Creek is considered to be the primary ecological receptor.

5 Field investigation methodology

Field sampling methods were undertaken in accordance with written Standard Operating Procedures (SOPs) for each task that comprised the fieldwork program.

5.1 Soil investigation

5.1.1 Service location and clearance

All borehole locations were cleared for subsurface utilities as follows:

- plans of underground utilities were requested from the Dial-Before-You-Dig service and relevant utility representatives were contacted to confirm proposed sample points were clear of subsurface utilities. All plans were reviewed by EMM prior to the commencement of service location clearance. Any borehole locations potentially located in the vicinity of identified underground services were changed at this time;
- all sampling points were located in consultation with on-site personnel (PCYC staff) and previously obtained subsurface utility maps. All sample locations were marked on the ground with spray paint. All locations were measured from nearby building reference points;
- each sampling location was cleared using an accredited underground services location contractor (Locators); and
- each location was cleared using non-destructive drilling (NDD) techniques (hand auger) to at least 1 m bgl prior to mechanical drilling by a competent subcontractor (Matrix Drilling).

5.2 Intrusive work

Matrix Drilling were engaged to carry out the contamination drilling scope. Drilling techniques consisted of a combination of hand auger and push tube sampling methods. Where push tube sampling techniques were employed, continuous soil samples were collected. Soil was collected in disposable plastic liners and representative soil samples were transferred from liners into laboratory supplied sampling containers by nitrile-gloved hand. Samples were collected based on their location, distribution within the soil/fill profile and suitability for sampling. Boreholes were drilled at least 1m into natural material to a maximum depth of 5 m bgl.

Borehole locations that were not converted to monitoring wells were reinstated with soil cuttings that had been drilled out from that location. All boreholes were reinstated to original surface level and condition. Any excess soil generated from the drilling, monitoring well development and monitoring well purging process was placed in drums and collected and disposed of by a waste contractor (Volman Enterprises Pty Ltd) to a licenced facility (Blacktown Waste Services Pty Ltd – Riverstone facility) on 18 December 2019.

All soil samples were placed in laboratory prepared glass sampling containers using single use disposable nitrile gloves. Field duplicates (intra laboratory) and triplicates (inter laboratory) were prepared in the field by splitting soil samples. In order to minimise the loss of volatiles, samples were not mixed or homogenised during collection or splitting and jars were filled to minimise the amount of headspace where sample recovery allowed. Where materials potentially containing asbestos were noted, a sample of the material and the soil at the location where it was sampled was collected in separate plastic zip lock bags for laboratory analysis for asbestos.

5.2.1 Soil sample labelling, preservation, storage and transport

All samples were clearly labelled with unique sample identification numbers consisting of the date, sample location, depth of sample and samplers' initials. In the case of field duplicates and triplicates, sample containers were labelled to not reveal their purpose or sample location to the laboratory. All samples were kept chilled in an ice-filled esky prior to dispatch to the NATA registered laboratory under chain of custody (COC) procedures.

All samples collected are stored at the laboratory (3 months for metals [28 days for mercury]), or 14 days for organics).

5.2.2 Field screening

For each sample depth, additional soil was screened for head space vapours and the presence of VOCs, using a calibrated PID. The headspace reading was taken at ambient temperature and was recorded on the borelogs provided in Appendix E. The PID readings were considered when selecting soil samples for laboratory analysis.

The PID was calibrated with isobutylene gas at 100 ppm at the commencement of each day of sampling and, if necessary, during the day in accordance with the procedure provided by the supplier. Calibration records are provided in Appendix D.

5.2.3 Field logging

Lithology descriptions were recorded on EMM's standard field sheets for uniformity in descriptions, presentation and to aid in any future interpretations based on lithological data. Borelogs are provided in Appendix E.

Observations of contamination were recorded on the borelogs at the depth intervals encountered. The field identification of contamination consisted primarily of visual and olfactory observations. Additionally, a PID was used to screen for the presence of VOCs (see above) and these readings are recorded on the borelogs.

Any unusually coloured or textured material, residues, staining or the presence of non-aqueous phase liquids (LNAPL/DNAPL) was recorded on the borehole logs for each investigation location, if present. Likewise, any unusual odours were recorded and the character of the odour (eg sweet, solvent-like, hydrocarbon-like) and strength noted.

5.2.4 Borehole survey

The borehole ground level was surveyed by a registered surveyor from Stuart De Nett Land Surveyors with reference to the AHD and Australia Map Grid (AMG).

The elevation and position of the boreholes are recorded on the borelogs provided in provided in Appendix E.

5.2.5 Soil sample analysis

Analysis of the samples collected during the investigation works was conducted by ALS and secondary analysis by Envirolab. The labs are NATA accredited and registered for the analyses proposed.

Soil samples were variably analysed for the following:

- metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead, zinc);
- total recoverable hydrocarbons (TRH) / benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN);
- semivolatile organic compounds (SVOCs), including (OCPs, organophosphate pesticides (OPPs), PAHs and phenols;

- VOCs;
- PCBs;
- suspension peroxide oxidation combined acidity and sulfate (SPOCAS);
- asbestos in soil (presence/absence) and asbestos quantification (%w/w); and
- toxicity characteristics leaching procedure (TCLP) for lead and B(a)P) for the purpose of waste classification.

5.3 Groundwater investigation

5.3.1 Monitoring well installation

Groundwater monitoring wells were constructed using machine slotted (0.5 mm aperture), 50 mm uPVC screens, variably placed from 1 m above the estimated standing water level (SWL) of groundwater to the base of the monitoring well. The monitoring wells were installed to depths between 4.20 m bgl (MW21) and 4.53 m bgl (MW11). The monitoring well locations are shown on Figure 4.1.

Prior to installation, the total depth of the borehole was measured with a weighted tape. The monitoring well casing was lowered in the borehole and suspended. Graded filter sand (2-mm diameter) was added to the annulus between the uPVC casing and the wall of borehole to approximately 0.5 m above the top of the screened interval. A minimum of 0.5 m hydrated bentonite seal was added above the filter sand. All monitoring wells were finished with a lockable PVC cap and concrete encased steel cover that was traffic rated and flush to grade (but slightly mounded at location MW11 for increased visibility in grass area).

5.3.2 Monitoring well development

Groundwater monitoring wells were developed using disposable polyethylene bailers. Approximately 10 well volumes of groundwater were purged from each well. Water quality parameters were measured during well development as an indicator of groundwater stabilisation within the well and suitability for ongoing monitoring. Wastewater collected during development was analysed and disposed of at a licenced waste facility (as per Section 5.2).

5.3.3 Groundwater monitoring wells standing water level measurement

The measurement of SWL in all groundwater monitoring bores was conducted using an oil-water interface probe. The measurements, as reported in Section 8.4.1, were taken in as close succession as possible to account for natural fluctuations in groundwater flow dynamics.

No light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL) was identified to be present.

All measuring instruments (probe and surface of the tape) were decontaminated between monitoring wells as outlined in Section 5.6.

The time of measurement at each bore was recorded. All measurements were taken from the top of the inner uPVC casing, at the same point (a notch, or black mark was placed into the edge of the casing to assure consistency in measurement).

5.3.4 Groundwater purging

Groundwater monitoring wells were purged using low-flow sampling techniques a minimum of one week after their development. Monitoring wells were purged using a submersible bladder pump (with a disposable low-density polyethylene (LDPE) bladder). Dedicated LDPE tubing was used to purge and sample the monitoring wells. The purged water from each bore was assessed for the stabilisation of physical parameters (pH, electrical conductivity (EC), temperature, redox and dissolved oxygen) prior to sample collection and any other physical characteristics identified during sampling was recorded on the field sheets as outlined in Appendix C. Excess purge water was placed in drums for disposal to a licensed waste facility.

5.3.5 Groundwater sample collection

Groundwater samples were collected using low-flow sampling techniques. The following sampling method was followed, which is applicable to both inorganic and organic analytes:

- groundwater samples were collected directly from the discharge line while the pump was operating, with the pumping rate reduced to less than 1 litre per minute;
- samples were placed into appropriate containers provided by the laboratory, as described below (which is also the order of collection of samples (ie VOCs samples will be collected first):
    - water samples to be tested for TRH (C_6-C_{10}), BTEXN and VOCs were placed in 40 ml glass amber vial with zero headspace;
    - water samples to be tested for TRH (C_{10}-C_{40}), SVOCs and PAHs were collected in a 100 ml glass amber vial; and
    - water samples to be tested for metals were filtered in the field using a 0.45 µm pore size prior to filling a HNO_3 preserved sample bottle.

All sample containers followed sample preservation, packaging, and shipping procedures as outlined in Section 5.4.

Samples were obtained immediately upon purging the bores.

5.3.6 Groundwater sample analysis

Analysis of the samples collected during the investigation works was conducted by ALS and secondary analysis by Envirolab. The labs are NATA accredited and registered for the analyses undertaken.

Groundwater samples were analysed for the following:

- dissolved heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc and mercury);
- TRH (C_6-C_{40}) / BTEXN;
- PAHs;
- SVOCs; and
- VOCs.

5.3.7 Survey of monitoring wells

The top of each monitoring well casing and adjacent ground level were also surveyed by Stuart De Nett Land Surveyors, with reference to the AHD and AMG to allow reliable calculation of groundwater flow direction.

The elevation and position of the monitoring wells are recorded on the borelogs provided in Appendix E.

5.4 General sample preservation, packaging and shipping

Procedures for containing and preserving groundwater and soil samples were as follows:

- samples were immediately placed and stored in laboratory-supplied sample containers and acid preserved (eg nitric acid for metals in groundwater, etc) as required;
- samples for asbestos analysis were collected in laboratory supplied zip lock bags and double bagged;
- filtering of groundwater samples to 0.45 µm for metals analysis was conducted using disposable filters prior to preservation;
- all contamination samples were placed in a cooler with ice to maintain samples at <4^{o}C prior to analysis;
- samples were delivered to the laboratory within holding times. Holding times for samples vary according to the type of analysis that is to be performed. The general holding times for common types of analyses are as follows:
    - samples to be analysed for VOCs and SVOCs can be held a maximum of 14 days with the exception of vinyl chloride and styrene (7 days);
    - samples to be analysed for other organic chemicals can be held a maximum of 7 days until extraction, and then for 40 days until analysis; and
    - samples to be analysed for metals (except mercury - 28 days) can be held a maximum of 6 months;
- Samples were labelled with details including:
    - date and time sampled;
    - project number;
    - field ID; and
    - sample preservatives used.

5.5 Chain of Custody protocols

Samples collected in the field were traceable from the time of collection until the analytical laboratory receives them. To maintain and document sample possession, chain of custody (CoC) procedures were followed. CoC documentation can be found in Appendix G.

CoC records include the following information:

- project number;

- name(s) of sampler;
- time and date of collection;
- depth of sample (for soils);
- number and type of containers;
- sample type and identification;
- receiving analytical laboratory;
- required analyses;
- preservatives used;
- names and signatures documenting relinquishment of the samples to the laboratory;
- courier;
- change of sample custody; and
- consultant.

CoC records accompanied samples at all times once the samples were collected by the receiving laboratory. When transferring possession of the samples, the individuals relinquishing and receiving the samples signed, dated and noted the time of transfer on the CoC record.

The EMM field staff, prior to dispatch to the laboratory, reviewed all CoC. The laboratory was contacted to return (by email) appropriately signed CoC records to confirm sample delivery.

5.6 Decontamination of field equipment

EMM field staff are responsible for ensuring that all field equipment is appropriately decontaminated prior to use on any environmental soil or groundwater investigation. Decontamination is performed for field equipment to eliminate the possibility of cross-contamination from previous jobs or between sampling locations. In general, decontamination consists of either a high pressure, hot water wash (steam-cleaning) or a non-phosphate detergent solution (Decon 90) wash followed by deionised, distilled, or clean water rinse(s).

The decontamination procedures were performed before initial use of any equipment at a site and after each subsequent use.

Decontamination procedures utilised during drilling, sampling and using monitoring equipment are as follows:

- hand trowels and hand augers or any other reusable sampling equipment were washed with a mixture of water and phosphate free detergent prior to use at each location;
- all sampling and measurement field equipment (eg water quality meters, etc) were hand washed with a mixture of water and phosphate free detergent. This was followed by a double potable water rinse prior to use in each borehole/monitoring well, between sampling and between each measurement event. Where possible, equipment was wiped with disposable paper towel prior to, and after, decontamination as above;

- disposable push tubes (approximately 1.2 m length) were used for collection of soil samples at each location and did not require decontamination (ie dedicated equipment);
- drill rods were brushed down between drilling locations to remove drilling cuttings and pressure washed where sheen, oil or odorous contamination was observed on the drill rods. The washing of equipment was not undertaken on surfaces that drain to storm water drains;
- the fluid line tubing used in the low flow purging and sampling system was replaced between monitoring wells and did not require decontamination (ie dedicated equipment); and
- following completion of sampling and decontamination of sampling equipment described above, one rinsate blank sample (from an item of sampling equipment, ie hand auger) was collected per day of sampling by running laboratory supplied distilled water over the selected undedicated sampling item and decanting directly into the sample bottle. At a minimum, rinsate samples were analysed for TRH, BTEXN and metals.

6 Quality assurance and quality control

The field and laboratory quality assurance and quality control (QA/QC) plan adopted for the investigation has been designed to achieve pre-determined data quality indicators (DQIs) that demonstrate the precision, accuracy, representativeness, completeness and comparability of the data set and that the data set is of acceptable quality to meet the objectives of the DQI.

6.1 QA/QC data validation

The QA/QC program implemented as part of this DQI was generated as the outcome of the seven-step DQO process, as described in the SAQP (AECOM, 2018b) and summarised in Appendix A.

Analyses of primary and intra-laboratory duplicate soil and groundwater samples were undertaken by ALS. Inter-laboratory samples were analysed by Envirolab. All laboratories are NATA accredited for the analyses undertaken.

Details of the QA/QC data validation are presented in Appendix B.

6.2 Data useability

The data validation procedures employed for the assessment of the EMM field and laboratory QA/QC data indicated that the reported analytical results are representative of soil and groundwater conditions at the sample locations, and that the overall quality of the analytical data produced is acceptably reliable for the purpose of the investigation.

7 Basis for assessment criteria

7.1 Site context

The Site is proposed to be redeveloped for high density residential land use, with areas of retail and commercial use, including redevelopment of the existing PCYC facility. While development plans have not been finalised or approved, it is understood that the proposed development includes excavation of soil and fill across the entire Site footprint, to facilitate the excavation of up to three levels of basement car parking. As a result, under the current plans, shallow fill and natural soils would be excavated and removed from the Site.

In the context of the proposed development, and in accordance with the objectives of this Stage 2 Contamination Assessment and the previously prepared SAQP (AECOM, 2018b), assessment criteria have been selected based on the following:

- to assess the suitability of the Site in its current condition for the most sensitive of the proposed land use, being high density residential use;
- to assess the waste classification of materials (including acid sulfate soils) to be excavated as part of the proposed redevelopment; and
- to inform remediation and/or management strategies (including acid sulfate soils) required to support the proposed redevelopment of the Site.

7.2 Soil investigation criteria

The following guidelines were used to select assessment criteria for the evaluation of the soil analytical results:

- the ASC NEPM – Soil Health Investigation Levels (HILs) (for metals, PAHs, VOCs, SVOCs, OCPs, asbestos) and Health Screening Levels (HSLs) (for asbestos);
- Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE) Technical Report No.10 - Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater. September 2011. (Friebel, E. and Nadebaum, P., 2011) – Soil Health Screening Levels (HSLs) (for TPH and naphthalene);
- United States Environmental Protection Agency (USEPA, 2018). Regional Screening Levels (RSLs) for Industrial Soil, as updated January 2015 (SVOCs and VOCs without HILs or HSLs);
- NSW EPA (2014) *Waste Classification Guidelines, Part 1: Classifying Waste*; and
- NSW EPA (2014) *Waste Classification Guidelines, Part 4: Acid Sulfate Soils*.

7.2.1 Health Investigation Levels (HILs)

The HILs described in the ASC NEPM (2013) are scientifically-based, generic assessment criteria designed to be used in the first stage of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for four generic land use settings, as summarised in Table 7.1. It is understood that the proposed redevelopment is likely to comprise high density residential and commercial facilities with limited access to soil. For the HIL values, land use scenario B, for residential with minimal opportunities for residual soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats is identified as being most applicable to the Site.

Table 7.1 HIL summary

HIL	Land Use
HIL_A	Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, (no poultry), also includes children's day care centres, preschools and primary schools.
HIL_B	Residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats.
HIL_C	Public open space such as parks, playgrounds, playing fields (eg ovals), secondary schools and footpaths.
HIL_D	Commercial/industrial such as shops, offices, factories and industrial sites.

7.2.2 Health Screening Levels (HSLs)

The HSLs (presented in the ASC NEPM and Friebel and Nadebaum, 2011) for petroleum hydrocarbons in soil and groundwater were developed to be protective of human health by determining the reasonable maximum concentration from on-site sources for a range of situations commonly encountered on contaminated sites. The HSLs apply to the same land-use settings as for the HILs detailed in Table 7.1, although the values for residential A and B are combined. The HSLs also include consideration of soil texture and depth to source to determine the appropriate soil, groundwater and soil vapour criteria for the exposure scenario as summarised in Table 7.2 below.

As above, selection of appropriate HSLs require identification of the soil type affected by contamination. Identifying the appropriate soil texture is important for volatile chemicals as saturation porosity (a factor of soil particulate size) will directly influence the rate of vapour transport and consequently determine the HSL value for vapour inhalation. The adopted soil description is based on the Unified Soil Classification System (USCS), which is determined by the ratio of sand, silt and clay particles in the soil.

Table 7.2 Soil HSLs for vapour intrusion

HSL	Land use	Soil depths	Soil types (all land uses)
HSL_A	Refer to Table 7.1	0 m to <1 m	Sand (including sand, sandy clay, sandy clay loam, sandy loam, loamy sand, loam, sandy silt and silty sand)
HSL_B		1 m to <2 m	
HSL_C		2 m to <4 m	Silt (including silt, silty clay and silty)
HSL_D		>4 m	

Friebel and Nadebaum (2011) included two key assumptions in the derivation of the HSLs that limit their use to assessing impacts from petroleum sources:

- An aliphatic: aromatic ratio of 80: 20 within each TPH fraction was adopted based on representative data for fresh petrol and diesel fuels typical of those available in Australia. CRC CARE states that *the HSLs may be applied to other fuel types (e.g. kerosene, aviation fuel and fuel oil); however, it should be confirmed that the aliphatic/aromatic speciation is similar to that assumed in the derivation of the HSLs (80:20)* (Friebel and Nadebaum, 2011).

- The soil saturation and water solubility limits used in the derivation of the HSLs were based on an assumed mixture composition. The HSLs are therefore not applicable to pure compound solvents, as solubility limits incorporated into the HSLs were derived based on typical petrol and diesel fuel mixtures.

On this basis, Friebel and Nadebaum (2011) states that *'HSLs cannot be applied to non-petroleum sources such as pure solvents or gasworks wastes, where the solubility limits may be much higher'* but also states that *'HSLs for BTEX*

and naphthalene may be used to assess risk for contamination present from non-petroleum based activities such as gas manufacture…subject to adopting the HSL values (which are not limited by theoretical solubility or saturation concentrations). EMM considers that a similar approach may be justified for TPH constituents, provided that the HSL values for the aromatic/aliphatic fractions are adopted rather than the weighted total fractions.

Where the HSL value is non-limiting (NL), the Friebel and Nadebaum (2011) direct contact values were adopted. Direct contact HSLs have been developed for the incidental soil ingestion, dermal and inhalation exposure pathways. Although it is understood that the redeveloped Site is likely to comprise high density residential and commercial facilities with limited access to soil, future sub-slab intrusive works may be required for service maintenance purposes. As such, there is a potential for workers to come into direct contact (ie incidental ingestion and/or dermal contact) with and/or inhale CoPC in soil/dust. The direct contact HSLs are generally not the risk drivers for further site assessment for the same contamination source as the HSLs for vapour intrusion. The HSLs for direct contact are summarised in Table 7.3.

Table 7.3 Soil HSLs for direct contact

HSL	Land Use
HSL_A	Refer to Table 7.1
HSL_B	
HSL_C	
HSL_D	
Shallow Trench Worker	Utility / intrusive maintenance workers involved in shallow trenches (to a maximum depth of 1 m). It is noted that this is also considered to be appropriate for the assessment of exposure to intrusive maintenance workers in tunnel and dive structures > 1 m depth.

Note: Loam soils are not usually considered in Australian assessments.

As the future land use is anticipated to be residential with minimal opportunities for residual soil access, the soil type is variable across the investigation area and the design of the future development has not been finalised, however it is likely that the majority of fill and soil materials across the Site will be excavated as part of the proposed development for construction of basement(s), the following HSLs were adopted in the following hierarchy:

- HSL B for vapour intrusion, 0 to <1 m, sand;
- HSL B for direct contact; and
- HSL for intrusive maintenance worker direct contact.

7.2.3 Ecological Soil Assessment Criteria

i Ecological Investigation Levels (EILs)

The ASC NEPM provides ecological investigation levels (EILs) for the protection of terrestrial ecosystems. EILs have been derived for arsenic, copper, chromium (III), dichlorodiphenyltrichloroethane, naphthalene, nickel, lead and zinc and have been developed for the following three generic land use settings:

- national parks and areas of ecological significance;
- urban residential areas and public open space; and
- commercial and industrial land uses.

The EILs have been derived to protect soil, soil processes and terrestrial species using a risk-based approach. Toxicity data for each chemical was compiled and used to calculate an added contaminant limit (ACL) either using a species sensitivity distribution (SSD) or assessment factor (AF) approach depending upon the level of available toxicological data. It is noted that the EILs conservatively assume 100% bioavailability as this factor can be highly variable and dependent upon site-specific conditions.

The ASC NEPM (outlines the effects of soil characteristics (specifically pH, cation exchange capacity (CEC) and clay content) on bioavailability and toxicity of contaminants to terrestrial and soil organisms. For contaminants where sufficient data is available with regard to the effects of soil characteristics on toxicity the ASC NEPM provides a method to enable ACL values to be adjusted based on site-specific soil properties. The ASC NEPM outlines that where there is insufficient data to support adjustment of EILs these chemicals cannot be adjusted based on site-specific soil properties.

EILs apply principally to contaminants in the top 2 m of soil at the finished surface/ground level which corresponds to the root zone and habitation zone of many terrestrial species. It is noted that this development is likely to include removal of the existing soils to depths greater than 2 m and therefore, assessment of laboratory results against the EILs may not be directly relevant. however, in order meet the objective of assessing the suitability of the Site in its current condition, comparison against the EILs has been included as part of this Stage 2 Contamination Assessment,

As the proposed development will include high density residential, retail and commercial land uses, the EILs applicable to this investigation are those for urban residential areas and public open space.

ii Ecological Screening Levels (ESLs)

Ecological screening levels (ESLs) are provided in the ASC NEPM and are based on the review of Canadian guidance (derived by the Canadian Council for Ministers of the Environment (CCME)) for petroleum hydrocarbons in soils and comparison of the derivation methodology with Australian methodology. It was determined that the derivation of ecological screening values by the CCME was in accordance with Australian methodology and thus the CCME values for BTEX, B(a)P and F1 (carbon chain fractions C_6-C_{10}) and F2 (>C_{10}-C_{16}) were adopted in the ASC NEPM.

ESLs are provided for four TPH fractions (F1 to F4, [F3 >C_{16}-C_{34} and F4 >C_{34}-C_{40}]) and for coarse and fine-grained soil types. As per the EILs, the ESLs apply from the surface to 2 m depth below finished surface/ground level and apply to fresh petroleum contamination. Noting the proposed development and bulk excavation of soil from the Site, the ESLs have been adopted for screening purposes in the current assessment.

iii Aesthetics

In accordance with the ASC NEPM, the following are the type of findings that would trigger the requirement for assessment of aesthetic considerations where further assessment hasn't been triggered by an exceedance of an investigation or screening criteria:

- highly odorous soil or groundwater;
- hydrocarbon sheens on groundwater;
- discoloured soil or chemical deposits;
- large monolithic deposits of otherwise low risk material; and
- soils containing residue from animal or abattoir waste burial.

While aesthetics has been considered in this assessment, it is noted that soil is likely to be excavated across the entire Site footprint as part of the development and therefore, any aesthetic issues identified would likely be removed.

7.2.4 Management limits for petroleum hydrocarbons

Petroleum hydrocarbon management limits are screening levels from the ASC NEPM that are applicable following evaluation of human health and ecological risks and risks to groundwater resources. They are intended to assess other impacts that are not considered in the application of HSLs or ESLs, such as explosive or fire hazards, impacts to subsurface infrastructure and the formation of LNAPL.

They are applicable for operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites.

Soil analytical results for petroleum hydrocarbons were screened against the management limits for residential land use. As the soil and fill conditions within the Site are variable, the limits for coarse textured soils have been adopted, which are most conservative.

7.2.5 Adopted asbestos assessment criteria

The ASC NEPM provides specific guidance for the assessment of asbestos in soils based on the Western Australian Department of Health (DoH) *Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Study Areas in Western Australia* (May 2009). The DoH Guidelines include three groups of asbestos contamination:

- Asbestos Containing Material (ACM): asbestos is bound in a matrix, in sound condition, although possibly broken or fragmented (e.g. asbestos sheeting, vinyl floor tiles), and is restricted to material that cannot pass through a 7 mm x 7 mm sieve. The sieve size is selected on the basis that it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would involve extreme mechanical action probably associated with asbestos fibre release. The smaller fragments are considered to be Asbestos Fines. ACM usually represents a low human health risk.

- Fibrous Asbestos (FA): friable asbestos material, such as severely weathered ACM and loose fibrous material such as insulation products. FA is defined as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. Both ACM and FA can often be detected visually.

- Asbestos Fines (AF): includes free fibres of asbestos, small fibre bundles and ACM fragments that pass through a 7 mm x 7 mm sieve. Both FA and AF have the potential to generate or be associated with free asbestos fibres.

The DoH Guidelines nominate the soil asbestos investigation and clean-up criteria, as presented below in Table 7.4. The residential (minimal soil access) criteria HSL would be adopted for the purpose of this investigation.

Table 7.4 ASC NEPM (2013) HSLs for asbestos

Land use	Asbestos group	% w/w[1] asbestos
All land uses	FA and AF	0.001
All land uses	All forms	No visible asbestos
Residential, day care centres preschools, etc.	Bonded ACM	0.01
Residential, minimal soil access	Bonded ACM	0.04

Table 7.4 ASC NEPM (2013) HSLs for asbestos

Land use	Asbestos group	% w/w[1] asbestos
Parks, public open space, playing fields, etc.	Bonded ACM	0.02
Commercial/Industrial	Bonded ACM	0.05

1. w/w = weight for weight of asbestos in soil.

7.2.6 Adopted Soil Assessment Criteria (SAC)

As previously discussed, the Site is proposed to be used for high density residential, retail and commercial land uses. Soil data has therefore been screened against criteria for residential with minimal opportunities for soil access, as the most sensitive land use. It is noted that there are a number of basement levels proposed and based on the current development plans, no residual surficial soil will remain on the Site. The adopted SAC, presented in Table 7.5 below, have been selected to assess the suitability of the Site in is current condition. Aesthetic conditions listed in Section 7.2.3iii have also been considered.

Table 7.5 Human health-based soil assessment criteria (SAC)

Guideline	Level adopted	CoPC
ASC NEPM	HIL_B (residential with minimal opportunities for soil access)	Metals, PAHs, VOCs, SVOCs, OCPs, PCBs, asbestos
Friebel, E. and Nadebaum, P. (2011)	Vapour Intrusion: HSL B (residential with minimal opportunities for soil access) petroleum/non-petroleum sites[1]	TRH, BTEX, Naphthalene
	Direct Contact: HSL B (residential with minimal opportunities for soil access)	
	Intrusive Maintenance Worker HSL (petroleum / non-petroleum); 0 to 2 m[1]	
	Intrusive Maintenance Worker HSL B (residential with minimal opportunities for soil access), 0 to 1 m sand[1]	
USEPA (2018)	Regional Screening Levels (RSLs) – Residential Soil	SVOCs, VOCs (without HSLs or HILs)
ASC NEPM	Management Limits for TPH fractions F1 to F4 in soil – coarse textured soils	TPH fractions

1. Non-petroleum screening criteria will be adopted based on whether or not the source is considered to be a petroleum source.

7.3 Adopted Acid Sulfate Soil (ASS) assessment criteria

The Acid Sulfate Soils Assessment Guidelines (Acid Sulfate Soils Management Advisory Committee, 1998) have been developed primarily for proponents of activities that are likely to disturb acid sulfate soils, and for councils and government authorities responsible for assessing these proposals. The guidelines outline a stepwise process for site assessment and management of proposals in areas containing acid sulfate soils. The guidelines recommend the adoption of best management practice in the planning, design and undertaking of activities that disturb acid sulfate soils.

Samples analysed for SPOCAS were assessed against the action criteria presented in Table 4.4 of the ASSMAC Assessment Guidelines as follows:

- Coarse Texture Sands to Loamy Sands;

- <5% clay content; and
- >1,000 tonnes disturbed.

Where more than 1,000 tonnes of soil is to be disturbed and the reported sulfur trail (% sulfur oxidisable) or acid trail (mol H+/tonne) exceeds the Action criteria (0.03% and 18 mol H+/tonne, respectively) an Acid Sulfate Soils Management Plan will be required.

7.4 Adopted waste characterisation criteria

The current criteria used in NSW to characterise waste materials for off-site disposal are provided in the NSW EPA (2014) Waste Classification Guidelines. The guidelines set different maximum total concentrations and leachable concentrations, for specific contaminants in order for waste to be classified for offsite disposal. This classification then affects the way in which the waste is handled and where the waste is able to be disposed. For the purpose of characterising soil conditions at the Site for potential offsite disposal, soil analytical results, including TCLP analytical results, were compared to NSW EPA (2014) guidelines.

7.5 Adopted groundwater assessment criteria

The ASC NEPM has been adopted as the primary guidance document for the assessment of groundwater concentrations. The following guidelines were utilised for the assessment of groundwater concentrations, based on the ASC NEPM, as required:

- Australian Drinking Water Guidelines Paper 6, National Water Quality Management Strategy. NHMRC National Resource Management Ministerial Council (NRMMC), Commonwealth of Australia, Canberra Version 3.5, August 2018. (NHMRC, 2018);
- Drinking Water Guidelines. World Health Organisation, 2011 (WHO, 2011);
- Petroleum Products in Drinking Water. World Health Organisation, 2008. (WHO, 2008);
- USEPA (May 2018) - Regional Screening Levels – Tapwater; and
- Australian and New Zealand and Australian State and Territory Governments (ANZG, 2018) *Guidelines for Fresh and Marine Water Quality*.

7.5.1 Human health

i HSLs

Friebel, E. and Nadebaum, P. (2011) have been referred to for the assessment of petroleum hydrocarbon contamination, which are applicable for assessing vapour intrusion risks from contaminated groundwater. The HSLs are based on five specific land uses/receptors; three soil types and three depth ranges for groundwater, as summarised in Table 7.6.

Table 7.6 Groundwater HSL summary

HSL	Land use	Depth to groundwater	Soil types (all land uses)
A	Low density residential with direct access to soils	2 m to <4 m 4 m to <8 m 8 m +	Sand (sand, sandy clay, sandy clay loam, sandy loam, loamy sand, loam, sandy silt and silty sand) Silt (silt, silty clay and silty clay loam) Clay (clay, clay loam and silt loam)
B	High-density residential with limited direct access to soils		
C	Public open space including parklands and ovals		
D	Commercial/Industrial land		
Shallow Trench Worker	Utility/intrusive maintenance workers involved in shallow tranches to a maximum depth of 1 m		

ii Drinking water quality guidelines

For the assessment of drinking water, the ASC NEPM references the use of the *Australian Drinking Water Guidelines* which were most recently updated in 2018 (NHMRC, 2018). These guidelines have been developed for health and aesthetic quality levels for supplying good quality drinking water.

The Australian Drinking Water Guidelines (ADWG) do not present guideline values for TPH in drinking water. In the absence of other Australian guidance relating to drinking water standards, the World Health Organisation (WHO) Petroleum Products in Drinking Water (2008) have been adopted for the following reasons:

- the ADWG are based on the WHO drinking water guidelines; and
- the ASC NEPM notes that *Australia is a party to the WHO process and has incorporated their material in a variety of environmental health criteria*.

iii Ecological

The ANZG (2018) provide 'trigger' values for chemicals within the water, which represent the best current estimates of the concentration of chemicals that should have no significant adverse effects on the aquatic ecosystem. ANZG indicates that an exceedance of a trigger values does not necessarily imply that there is an inherent risk, rather that further assessment and monitoring may be required prior to implementing appropriate management actions. EMM notes that according to ANZG, low reliability trigger values are interim levels only because *"low reliability trigger values were derived, in the absence of a data set of sufficient quantity, using larger assessment factors to account for greater uncertainty", and, "low reliability values should not be used as default guidelines"*.

Whilst ANZG provide an interim, low reliability trigger level of 7 µg/L for crude oil in water; there is no trigger level for TPH. EMM notes that current laboratory limits of reporting (LOR) cannot quantify TPH to this concentration. As a consequence, no assessment criteria for TPH have been adopted.

7.5.2 Adopted Groundwater Assessment Criteria (GAC)

The following criteria have been adopted as the groundwater assessment criteria (GAC).

Table 7.7 Groundwater Assessment Criteria

Receptor	Guideline	Level Adopted
Human health	Friebel, E. and Nadebaum, P. (2011)	Vapour Intrusion: HSL B (residential with minimal opportunities for soil access)
	NHMRC (2018)	Australian Drinking Water Guidelines
	WHO (2008)	Petroleum Products in Drinking Water
	WHO (2011)	Drinking Water Guidelines
	ANZECC (2000)	Recreational primary contact
	USEPA (2018)	Regional Screening Levels – Tap water
Ecological	ANZG (2018)	Freshwater, 95% level of species protection where applicable, including moderate and low reliability trigger values
		Agriculture, parks and gardens

The following rationale was applied in the selection of these human-health based GAC:

- HSL B for residential land use with minimal opportunities for soil access has been adopted for human health assessment as this is the most sensitive proposed land use. Sand was selected as the soil type and shallowest presented groundwater depth (<2−4 m) as a conservative measure to be protective of deeper groundwater. For the purpose of this assessment the Friebel and Nadebaum, (2011) extension model will not be applied for groundwater less than 2 m deep as it is unlikely that the value (for vapour intrusion) would be less than the drinking water guideline.

- ANZECC (2000) values for recreational primary contact due potential primary contact with site workers and future or off-site exposure to recreational receptors.

Based on review of available information and consideration of the Site location in accordance with Table 5 of Schedule B1 of the ASC NEPM, the groundwater environmental values to be adopted for this assessment include:

- ANZG (2018) 95% level of species protection trigger values for freshwater ecosystems.

8 Results

8.1 Field observations – soil

Encountered stratigraphic conditions were generally found to comprise sand fill material (average maximum depth of 1.4 m bgl) overlying natural peat soils and sand. Below the peat and sand, the geotechnical investigation (Douglas, 2020) identified peaty clay and sand (5.8 to 6.8 m bgl) and stiff to very stiff clay (5.2 to 13.0 m bgl) overlying sandstone bedrock at depths of 6.8 to 14 m bgl. Anthropogenic materials were observed in the fill material, including ceramic, brick, mortar, and glass fragments. PID readings ranged from 0.0 ppm to 13.7 ppm (MW21). No staining or odours were noted. Bore logs are included in Appendix E.

8.2 Soil analytical results

A total of 63 primary samples from 21 locations, with a minimum of at least two samples per borehole, were submitted for laboratory analysis for CoPC. The laboratory analytical results are presented in Appendix F and laboratory certificates of analysis are included in Appendix G.

A summary of the SAC exceedances is provided in Table 8.1 and a spatial distribution of soil analytical results is shown in Figure 8.1.

Table 8.1 Summary of criteria exceedances

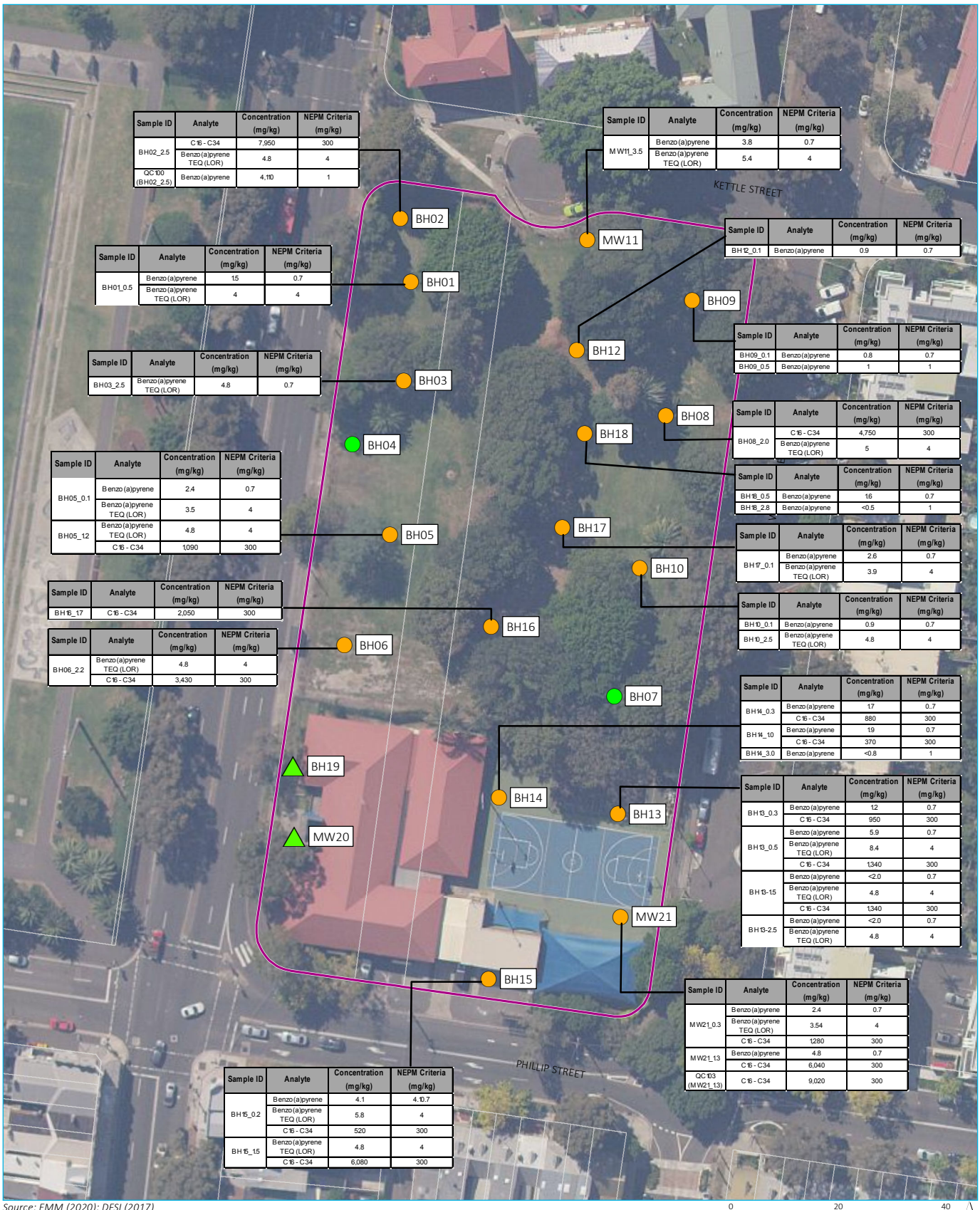
Analyte	Adopted criteria	Criteria value	Location_Depth_Date	Material type	Concentration (mg/kg)
Benzo(a) pyrene	ASC NEPM Table 1B(6) ESLs for Urban Res, Coarse Soil	0.7 (mg/kg)	BH01_0.5_191127	Fill	1.5
			BH05_0.1_191127	Fill	2.4
			BH09_0.1_191127	Fill	0.8
			BH09_0.5_191127	Fill	0.8
			BH10_ 0.1_181128	Fill	0.9
			BH12_0.1_181128	Fill	0.9
			BH13_0.1 _191128	Fill	1.2
			BH13_0.5_191128	Fill	5.9
			BH14_0.3_ 191128	Fill	1.7
			BH14_1.0_191128	Fill	1.9
			BH15_0.2_181128	Fill	4.1
			BH17_0.1_191128	Fill	2.6
			BH18_0.5_191129	Fill	1.6
			BH19_0.5_191129	Fill	3.7
			MW11_3.5_191129	Natural – clayey sand	3.8
			MW21_0.3_191129	Fill	2.4
B(a)P TEQ (LOR)	ASC NEPM Table 1A(1) HILs Res B Soil	4 (mg/kg)	BH01_2.5_191127	Natural - peat	4.8
			BH02_2.5_191127	Natural - peat	4.8
			BH03_2.5_191127,	Natural - peat	4.8

Table 8.1 Summary of criteria exceedances

Analyte	Adopted criteria	Criteria value	Location_Depth_Date	Material type	Concentration (mg/kg)
			BH05_1.2_191127	Natural - peat	4.8
			BH06_2.2_191127	Natural - peat	4.8
			BH08_2.0_191127	Natural - peat	4.8
			BH10_2.5_181128	Natural - peat	4.8
			BH13_0.5_191128	Fill	8.4
			BH13_1.5_191128	Natural - peat	4.8
			BH13_2.5_191128	Natural - peat	4.8
			BH15_0.2_181128	Fill	5.8
			BH15_1.5_191128,	Natural - peat	4.8
			BH19_0.5_191129	Fill	5.2
			MW11_3.5_181128	Natural – clayey sand	5.4
			MW21_1.3_191129	Natural - peat	4.8
Asbestos (FA and AF)	ASC NEPM Table 7 HSL (all land uses)	0.001 % (w/w)	BH19_0.5_191129	Fill	0.008 % (w/w)
			MW20_0.5_191129	Fill	0.082 % (w/w)
TRH (F1 minus BTEX)	ASC NEPM Table 1A(3) HSL A & B 0–1 m SAND	45 mg/kg	MW20_0.5_191129	Fill	103
TRH C_{16}-C_{34} (following silica gel clean-up to account for naturally occurring TRH)	ASC NEPM Table 1B(5) ESLs for Urban Res/Open Space (0–2 m, coarse soil)	300 mg/kg	BH13_0.5_191128	Fill	480
			BH13_1.5_191128	Natural	2,100
			BH14_0.3_191128	Fill	330
			BH15_1.5_191128	Natural	1,680
			BH16_1.7_191128	Natural	640
			MW21_0.3_191129	Fill	510
			MW21_1.3_191129	Natural	1,760
			QC103_191129 (duplicate of MW21_1.3_191129)	Natural	9,020
TRH C_{16}-C_{34}	ASC NEPM Table 1B(6) Management Limits in Res/Parkland (0–2 m, coarse soil)	2,500 mg/kg	QC103_191129 (duplicate of MW21_1.3_191129)	Natural	9,020

Note: The adopted B(a)P TEQ is conservative and assumes PAHs not detected are actually at the LOR (termed TEQ LOR).

Concentrations of B(a)P in soil were identified above the adopted SAC across the Site. No discernible spatial distribution was identified and vertical dispersion was predominantly limited to fill material and the peat layer underlying the fill. It is also noted that, in some instances, the laboratory limit of reporting (LOR) did not achieve detection levels low enough to report concentrations below the adopted ESL value of 0.7 mg/kg due to the high moisture content present in some of the samples analysed. As a conservative measure, it can be assumed these values are exceedances for B(a)P. These sample results are not displayed in the table above, but can be found in the analytical results table in Appendix F and the laboratory analytical reports in Appendix G.



Source: EMM (2020); DFSI (2017)

0 20 40 m

GDA 1994 MGA Zone 56

N

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KEY

- Site boundary
- Cadastral boundary
- Asbestos present
- No asbestos present

Soil results

- Below adopted guidelines
- Exceeds adopted NEPM guidelines
- Exceeds NSW EPA criteria for general solid waste

Tables indicate the analystes above the adopted criteria

Soil results

600-660 Elizabeth Street, Redfern
Detailed site investigation
Figure 8.1

EMM
creating opportunities

8.3 Waste Classification

Waste characterisation results indicate the soil and fill material analysed meets the general solid waste criteria for offsite disposal in accordance with NSW EPA (2014), except for asbestos detected at two locations in the samples analysed (BH19 and MW20), which would be characterised as special waste.

TCLP testing of samples collected by EMM indicated that significant leaching of lead and B(a)P does not appear to be occurring, indicating that there is a low potential for impacts from the contaminated material to groundwater beneath the Site.

8.4 Acid sulfate soils

A total of 33 samples were analysed for SPOCAS to evaluate the potential for potential or actual acid sulfate soils to be present. The reported results indicate that Actual Acid Sulfate (AAS) soils were identified in BH12_1.5 and BH16_1.7, however it is noted that highly organic soils can also display low pH conditions. All samples analysed for SPOCAS were identified as Potential Acid Sulfate Soils (PASS), except for BH01_0.5, BH08_0.5, BH09_1.0 and BH17_0.5. The results are presented in Table 8.2 and a spatial distribution of ASS results is shown in Figure 8.2.

Table 8.2 Sample sulfur trail, acid trail and lime calculation

Location_Depth_Date	Material type	pH (KCl)	Sulfur Trail %S oxidisable (S_{POS})	Acid Trail Titratable Peroxide Acidity (H^+/t)	Lime calculation kg CaCO3/t
BH01_2.5_191127	Sandy PEAT (medium dense)	4.5	2.61	6,940	135
BH02_0.9_191129	Silty SAND FILL (medium dense)	5.3	0.07	98	4
BH02_2.5_191127	PEAT (firm)	4.5	1.52	5,380	86
BH03_1.5_191127	PEAT (firm)	6.3	0.919	743	43
BH03_2.5_191127	PEAT (firm)	4.5	0.168	581	13
BH04_1.5_191127	PEAT (firm)	4.3	1.54	4,730	95
BH05_0.9_191127	SAND FILL (loose)	6.8	0.045	<2	<1
BH05_1.2_191127	PEAT (firm)	5.2	1.65	6,030	85
BH06_2.2_191127	PEAT (firm)	4.1	1.07	3,020	66
BH07_0.9_191127	Sandy CLAY (stiff)	6.3	0.053	<2	2
BH07_1.1_191127	PEAT (firm)	5.7	0.156	319	8
BH10_2.5_181128	PEAT (firm)	4.1	1.93	6,030	107
BH12_1.5_191128	PEAT (firm)	3.8	2.39	7,310	141
BH13_1.5_191128	PEAT (firm)	4.0	2.18	8,040	127
BH14_0.3_ 191128	Gravelly SAND FILL	10.9	0.048	<2	<1
BH14_3.0_191128	PEAT (firm)	4.6	0.669	1,750	39
BH15_1.5_191128	PEAT (firm)	5.0	1.98	5,720	99
BH15_2.5_191128	PEAT (firm)	4.1	1.78	5,160	96
BH16_1.7_191128	PEAT (firm)	3.7	2.46	7,660	140

Table 8.2 Sample sulfur trail, acid trail and lime calculation

Location_Depth_Date	Material type	pH (KCl)	Sulfur Trail %S oxidisable (S_{POS})	Acid Trail Titratable Peroxide Acidity (H^+/t)	Lime calculation kg CaCO3/t
BH17_2.5_191128	PEAT (firm)	4.6	0.564	1,180	28
BH18_2.8_191129	SAND (medium dense)	5.7	0.034	<2	2
BH19_1.5_191129	PEAT (firm)	4.9	2.36	7,140	120
BH19_2.5_191129	PEAT (firm)	4.4	0.299	875	18
MW11_3.5_181128	Clayey SAND	5.1	0.094	198	5
MW11_5.0_181128	Clayey SAND	5.3	0.046	100	2
MW20_1.8_191128	PEAT (firm)	5.2	1.67	4,930	86
MW20_4.0_191128	PEAT (firm)	5.1	0.444	879	22
MW21_4.4_191129	PEAT (firm)	4.0	3.38	5,500	181

The reported results indicate that an Acid Sulfate Soil Management Plan will be required for the management of AASS and PASS during future excavation works in this area.

Source: EMM (2020); DFSI (2017)

0 20 40 m

GDA 1994 MGA Zone 56

N

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KEY

- Site boundary
- Cadastral boundary

Acid sulfate soil results

- No acid sulfate soils detected
- Potential acid sulfate soils present
- Actual acid sulfate soils detected

Acid sulfate soil results

600-660 Elizabeth Street, Redfern
Detailed site investigation
Figure 8.2

EMM
creating opportunities

8.5 Field observations – groundwater

8.5.1 Groundwater level gauging

Results from groundwater well gauging completed prior to sampling are shown below in Table 8.3. Groundwater sampling field forms are included in Appendix C.

Table 8.3 Groundwater well gauging

Well ID	Total well Depth	Stabilised depth to water	Top of casing	Groundwater depth	PID well head reading	Well comments
Units	*m bgl*	*m bgl*	*m AHD*	*m AHD*	*ppm*	-
MW11	4.530	1.393	30.30	28.904	0.1	Flush
MW20	4.415	2.002	30.555	28.553	0.6	Flush
MW21	4.20	1.600	31.135	29.535	0.2	Flush

Groundwater depth was measured from 1.39 to 2.00 m bgl across three groundwater monitoring bores, which is above the proposed underground basement level.

8.5.2 Groundwater water quality parameters

Groundwater quality field parameters collected during the sampling event are shown below in Table 8.4. Groundwater sampling field forms are included in Appendix C.

Table 8.4 Groundwater quality field parameters

Point ID	Temperature °C	pH	EC µs/cm	DO mg/L	Redox mV
MW11	19.6	5.77	433.6	0.35	67.1
MW20	19.8	5.05	301.1	2.37	105.0
MW21	22.2	5.72	398.1	0.18	-37.5

Notes: EC – electrical conductivity, DO- dissolved oxygen, Redox – oxidation reduction potential

8.6 Groundwater analytical results

A total of three primary samples (one per location) and two duplicate samples were submitted for laboratory analysis for CoPC associated with the identified source of potential contamination. The laboratory analytical results are presented in Appendix F and laboratory certificates of analysis are included in Appendix G.

A summary of the criteria exceedances is provided in Table 8.5 and a spatial distribution of groundwater analytical results is shown in Figure 8.3.

Table 8.5 Summary of groundwater criteria exceedances

Analyte	Adopted criteria	Criteria value (mg/L)	Location_Date	Concentration (mg/L)
Copper (filtered)	NEPM 2013 Table 1C GILs, Fresh Waters	0.0014	MW20_191218	0.002
Zinc (filtered)	NEPM 2013 Table 1C GILs, Fresh Waters	0.008	MW20_191218	0.017

Sample ID	Analyte	Concentration (mg/kg)	NEPM/ANZG Criteria (mg/kg)
MW20	Copper	0.002	0.0014
	Zinc	0.017	0.008

Source: EMM (2020); DFSI (2017)

0 20 40 m

GDA 1994 MGA Zone 56

N

KEY

- Site boundary
- Cadastral boundary

Groundwater results

- Below adopted guidelines
- Exceeds adopted NEPM/ANZG guidelines
- 29.5 Groundwater level (metres Australian Height Datum)
- Groundwater contour
- Inferred groundwater flow direction

Groundwater results

600-660 Elizabeth Street, Redfern
Detailed Site Investigation
Figure 8.3

EMM creating opportunities

\\Emmsvr1\emm\Jobs\2019\J190730 - LAHC Elizabeth St Redfern\GIS\02_Maps\CLM\CLM005_GroundwaterResults_20200121_01.mxd 6/02/2020

9 Site Characterisation

9.1 Fill Materials, Natural Soils and Groundwater

The results of the Stage 2 Contamination Assessment indicate the following:

- Concentrations of B(a)P exceeded the adopted SAC across the Site, primarily in the surficial fill and natural peat layer. No discernible spatial distribution was identified.
- Concentrations of TRH C_{16}-C_{34} (F3 Fraction) exceeded the ESL at seven locations, direct contact HSL at two locations and Management Limit at one location, all within the southern portion of the Site (applicable to 0−2 m bgl).
- Concentrations of some metals, OCPs, PAHs and petroleum hydrocarbons exceeding the laboratory LOR but less than the SAC were also reported. The reported CoPC are generally consistent with that identified during previous investigations conducted at the Site.
- The reported contamination was primarily identified in shallow fill and natural peat underlying fill material. No obvious indicators of contamination (odours, staining, etc) were noted during the field investigation.
- One minor exceedance of the EIL for lead was observed in the fill material at MW20 (0.5 m bgl). Based on leachability data for lead (TCLP) across the site, there is a low potential for mobilisation. Additionally, there were no exceedances reported in the deeper subsurface profile at this location.
- PID results from field screening ranged between 0.0 and 13.7 ppm across all soil and groundwater monitoring well locations.
- Asbestos (FA and AF) was identified via laboratory analysis at two locations (BH19 and MW20) in fill material at a depth of 0.5 m bgl. No obvious fragments of bonded ACM were observed, however it is noted the asbestos detections were located in proximity to the PCYC building which contains asbestos (Douglas Partners, 2019).
- Reported laboratory results indicate that PASS are widely distributed across the Site. Reported results indicate the ASS may be associated with the presence of natural organic material below the fill layer. The management of ASS should be considered as part of future remediation and development planning.
- Groundwater depth was measured from 1 to 2 m bgl across three groundwater monitoring bores installed as part of this investigation. The results of the investigation indicated that groundwater beneath the Site is flowing in a westerly direction and is present as an unconfined, shallow aquifer within fill and natural soils.
- Concentrations of copper and zinc were above the adopted groundwater criteria (0.0014 mg/L and 0.008 mg/L) at MW20. The reported results are considered to be typical of background groundwater conditions encountered in the area and generally unrelated to contamination identified in soil and fill materials at the Site.

10 Conceptual site model

A conceptual site model (CSM) is a qualitative description of the mechanisms by which potential and/or complete exposure pathways exist between known or potential sources of Property contamination, and human or environmental receptors.

In order for a human receptor to be exposed to a chemical contaminant derived from the Property, a complete exposure pathway must exist. An exposure pathway describes the course a chemical or physical agent takes from the source to the exposed individual and generally includes the following elements (USEPA, 1989):

- A source and mechanism of chemical release.
- A retention or transport medium (or media where chemicals are transferred between media).
- A point of potential human contact with the contaminated media.
- An exposure route (eg ingestion, inhalation) at the point of exposure).

Where one or more of the above elements is missing, the exposure pathway is considered to be incomplete and there is therefore no direct risk to the receptors. Where this is identified, the exposure pathway does not warrant further assessment.

Based on the information obtained during this investigation, a CSM has been developed to identify complete or potentially complete linkages between contaminant sources of sensitive receptors. The CSM is summarised below.

10.1 Contaminant sources and contaminants of potential concern

Table 10.1 shows a summary of the potential sources of contamination and associated CoPC identified as an outcome of the site investigation.

Table 10.1 Potential Contamination Sources and Contaminants of Potential Concern

Potential Sources of Environmental Concern	CoPC	Likelihood of contamination/release mechanisms
Use of the site by various state transport authorities and storage of materials, equipment, plant, machinery (AECOM, 2018a)	Metals, TRH, BTEX, PAHs, VOCs, SVOCs, PCBs	Likely Analytical results from samples collected across the Site reported concentrations of TRH and B(a)P in soil and fill which may be associated with historical use of the site for storage of materials and equipment for transport related purposes. No exceedances of the SAC/GAC were reported for BTEX, VOC, SVOCs or PCBs. Zinc and copper above the GAC were detected but considered to be consistent with background groundwater conditions in the regional context.
Historical use of the Site for agricultural purposes (AECOM, 2018a)	OCPs, OPPs, metals	Unlikely Low concentrations of OCPs above the LOR were reported. Concentrations of OPP were reported below the limit of reporting. No results were above the adopted SAC/GAC.

Table 10.1 Potential Contamination Sources and Contaminants of Potential Concern

Potential Sources of Environmental Concern	CoPC	Likelihood of contamination/release mechanisms
Demolition and presence of historical buildings (terraces and PCYC building)	Lead, PCBs, asbestos	Known Analytical results from soil samples collected across the Site reported concentrations of asbestos exceeding the NEPM criteria at two locations (BH19 and MW20) in shallow fill (0.5 m bgl). All results for PCBs were reported below the laboratory LOR. Concentrations of lead were reported above the Laboratory LOR, but less than the adopted SAC/GAC.
Historical up-gradient laundry	VOCs, SVOCs and VHCs	Unlikely There were no field observations or groundwater measurements indicating the presence of DNAPL. All results for VOCs and SVOCs were reporting below the LOR.
Use of imported fill materials on the Site	Metals, TRH, BTEX, PAHs, VOCs, SVOCs, PCBs, and asbestos	Known Analytical results from samples collected across the Site reported concentrations of TRH and B(a)P in soil exceeding the SAC. No exceedances were reported for BTEX, VOC, SVOCs or PCBs. Analytical results from soil samples collected across the Site identified asbestos fines at two locations (BH19 and MW20) in shallow soil (0.5 m bgl).
Presence of acid sulfate soils	PASS/AASS	Known PASS was identified in most samples analysed.

10.2 Potential pathways

The following transport mechanisms may apply at the site:

- surface run-off of CoPC into drainage lines;
- excavation and re-location of impacted soil during construction activities;
- vertical seepage of CoPC into the underlying soils and into the local groundwater system;
- migration of CoPC via groundwater transport; and
- atmospheric dispersion (aeolian transport) of dust of fibres, derived from contaminated soil or hazardous building materials, eg asbestos or lead.

Identified potential exposure pathways for the nominated CoPC that may apply include:

- dermal contact and incidental ingestion of soil;
- inhalation of dust (including soil derived) or fibres;
- dermal contact and incidental ingestion of groundwater/surface water;

- inhalation of soil/groundwater vapours in indoor air;
- inhalation of soil/groundwater/surface water vapours in outdoor air;
- inhalation of soil/groundwater vapours within a trench;
- plant uptake and/or ingestion by animals; and
- uptake of CoPC from groundwater (stygofauna and microorganisms).

10.3 Potential receptors

Human receptors identified at the site comprise:

- current Site users (PCYC);
- adjacent site users (residential/commercial);
- future construction workers involved in the development of the site; and
- future land users (understood to be residential and commercial).

Potential ecological receptors include terrestrial and groundwater ecosystems and aquatic ecosystems in receiving surface water bodies.

10.4 Source-Pathway-Receptor model

Table 10.2 Source-Pathway-Receptor model

Source	Pathway	Receptor	Potentially complete S>P>R exposure?
Use of the site by various state transport authorities and storage of materials, equipment, plant, machinery (AECOM, 2018a)	Seepage into underlying soils and inhalation of soil vapour/dust	• Current site users (PCYC) • Future construction workers involved in the development of the site	Yes
	Direct contact/ingestion of soils	• Current site users (PCYC) • Future construction workers involved in the development of the site	Yes
	Migration through surface runoff	• Future construction workers involved in the development of the site • Future site users	Unlikely as Site is mostly unpaved and highly permeable. Surface water is likely to be absorbed onsite or be captured by stormwater in hardstand areas around the PCYC.
	Seepage through soil profile into groundwater and direct contact or incidental ingestion of groundwater or inhalation of vapours	• Future construction workers involved in the development of the site • Adjoining land users/occupants	Unlikely, groundwater will be managed during construction and is unlike to be abstracted. No volatile contamination identified in groundwater.

Table 10.2 Source-Pathway-Receptor model

Source	Pathway	Receptor	Potentially complete S>P>R exposure?
	Migration through groundwater flow	• Off-site users of groundwater • Ecosystems dependant on groundwater	Unlikely. No significant contamination identified in groundwater at the Site.
Historical use of the Site for Agricultural purposes (AECOM, 2018a)	Seepage into underlying soils and inhalation of soil vapour/dust	• Future construction workers involved in the development of the site • Future site users	Unlikely. Site is mostly unpaved and highly permeable. Surface water is likely to be absorbed onsite or be captured by stormwater in hardstand areas around the PCYC. Most CoPC (except for some OCPs) were below LOR in soil.
	Direct contact/ingestion of soils	• Future construction workers involved in the development of the site • Future site users	Unlikely. Most CoPC (except for some OCPs) were below LOR in soil.
	Migration through surface runoff	• Future construction workers involved in the development of the site • Future site users • Adjoining land users/occupants • Surface water ecosystems	Unlikely. Most CoPC (except for some OCPs) were below LOR in soil.
	Seepage through soil profile into groundwater and direct contact or incidental ingestion of groundwater or inhalation of vapours	• Future construction workers involved in the development of the site • Future site users • Adjoining land users/occupants	Unlikely. Most CoPC (except for some OCPs) were below LOR in soil.
	Migration through groundwater flow	• Ecosystems dependant on soil and groundwater on-site	Unlikely. Most CoPC (except for some OCPs) were below LOR in soil.
Demolition and presence of historical buildings (terraces and PCYC building) (AECOM, 2018a)	Seepage into underlying soils and inhalation of soil vapour/dust	• Current site users (PCYC) • Future construction workers involved in the development of the site • Future site users	Yes
	Direct contact/ingestion of soils	• Current site users (PCYC) • Future construction workers involved in the development of the site	Yes
	Migration through surface runoff	• Future construction workers involved in the development of the site • Future site users • Adjoining land users/occupants • Surface water ecosystems	Yes
	Seepage through soil profile into groundwater and direct contact or incidental	• Future construction workers involved in the development of the site	Yes

Table 10.2 Source-Pathway-Receptor model

Source	Pathway	Receptor	Potentially complete S>P>R exposure?
	ingestion of groundwater or inhalation of vapours	• Future site users • Adjoining land users/occupants	
	Migration through groundwater flow	• Ecosystems dependant on soil and groundwater on-site	Yes
Use of imported fill materials on the Site	Seepage into underlying soils and inhalation of soil vapour/dust	• Current site users (PCYC) • Future construction workers involved in the development of the site	Yes
	Direct contact/ingestion of soils	• Current site users (PCYC) • Future construction workers involved in the development of the site	Yes
	Migration through surface runoff	• Future construction workers involved in the development of the site • Future site users	Yes
	Seepage through soil profile into groundwater and direct contact or incidental ingestion of groundwater or inhalation of vapours	• Future construction workers involved in the development of the site • Future site users • Adjoining land users/occupants	Yes
	Migration through groundwater flow	• Ecosystems dependant on soil and groundwater on-site	Unlikely as most CoPC were low or below LOR in groundwater
	Migration through groundwater flow	• Ecosystems dependant on soil and groundwater on-site	Unlikely as most CoPC were low or below LOR in groundwater

EMM notes that:

- With the exception of the PCYC building, the existing open space ground surface (grass and soil) does not provide a barrier to contamination identified in subsurface soil and fill materials. However, the Site is currently barricaded to prevent public access to exposed soils in its current state.
- The reported fill and soil exceedences are considered to be associated with the historical land use activities and are primarily associated with the presence of buried near surface fill materials. Fill materials at the locations sampled extended to an average depth of 1.41 m bgs with a maximum depth of 2.1 m bgs. Fill material had been identified to depths of 2.5 m bgs during previous investigations undertaken at the Site.
- Consistent with previous investigations, elevated concentrations of TPH and PAH, in the form of B(a)P and TRH C_{16}-C_{34}, were identified, in both fill and natural material. Silica gel clean-up of selected samples was undertaken to remove interferences from non-petroleum hydrocarbons given the presence of high concentration soil organic matter (peat). Concentrations of TRH reported post silica gel clean-up, although generally reduced, remained elevated at a number of locations.
- Reported exceedences of copper and zinc in groundwater were generally low (slightly above the laboratory LOR) and considered indicative of background conditions.

10.5 Future Land Use for Residential/Commercial Purposes

Existing concept plans indicate the Site it will be developed for a mix of residential (minimal access to soil), retail, and commercial (PCYC) with basement level car parking. It is understood the proposed future land use will require bulk excavation for basement car parking across the entire site footprint (exact depth to be determined) which will form part of the future remediation strategy developed for the Site. Any future earthworks, remediation and development at the Site is likely to remove the exposure pathway to the identified sub-surface contamination as the identified contamination would be excavated and disposed offsite to facilitate construction of the proposed development.

11 Conclusions and recommendations

This Stage 2 Contamination Assessment was undertaken to provide information on soil and groundwater contamination conditions within the Site, in the context of the proposed future development. EMM considers that the Stage 2 Contamination Assessment has derived sufficient data to confirm the general characteristics of soil, fill and groundwater underlying the Site.

The results indicate that the Site is underlain by shallow fill material and a naturally occurring peat layer, which contain concentrations of TRH and B(a)P greater than the assessment criteria for the proposed high density residential, retail and commercial land uses. In addition, ACM was detected in shallow fill in the south-west corner of the Site, and the presence of actual or potential acid sulfate soils was identified across most of the Site.

In order to make the Site suitable for the proposed future landuse, development of a remediation strategy and associated environmental management measures is required. EMM notes that as part of the development, bulk excavation of subsurface material is proposed to allow for the construction of basement level car parking. This component of the development should be incorporated into the remedial strategy.

EMM recommends the following:

- preparation of a remediation action plan (RAP) detailing options for remediation and/or management and a recommended preferred strategy that will:
    - render the Site suitable for the proposed future land uses;
    - detail requirements for the appropriate treatment, management and offsite disposal of soils;
    - detail validation requirements to be implemented to demonstrate successful completion of the remedial works (including bulk excavation);
    - consider previous investigation findings; and
    - detail the requirement (if any) for future/ongoing monitoring or management.
- preparation of an Acid Sulfate Soil Management Plan for the management of identified potential acid sulfate soils;
- preparation of a Construction Environmental Management Plan for the management of contamination (and any unexpected finds) during construction; and
- preparation of an Asbestos Management Plan for the management of identified asbestos.

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Appendix A

Data quality objectives and data quality indicators

To ensure that data of adequate type and reliability are collected and assessed for the Contamination Investigation, the seven-step Data Quality Objective (DQO) approach, endorsed in the NSW EPA (2017) Guidelines for the NSW Site Auditor Scheme 3rd Edition, will be adopted. The DQOs have set quality assurance and quality control parameters for the field and laboratory programs to ensure data of appropriate reliability will be used to assess the environmental condition of the Site. The DQOs are presented in the following paragraphs.

A.1 Data quality objectives

A.1.1 Step 1 – State the problem

LAHC seeks to provide new social housing and the Site presents a valuable opportunity to deliver a community focused precinct centred on an improved public domain and associated facilities. The problem is that CoPC may be present in soil, fill and groundwater at the Site at concentrations which are not consistent with the proposed land use.

The Stage 2 Contamination Assessment to be carried out within the Site aims to:

- identify potential contamination issues that may impact the development and future use of the Site;
- inform the development of concept and detailed design for the project;
- evaluate the suitability of the Site for the intended land use;
- classify the material for off-site disposal in accordance with NSW EPA guidance;
- inform proposed construction requirements; and
- assist with the development of a remediation strategy (if required).

A.1.2 Step 2 – Identification of the goals (decisions) of the study

The decisions to be made based on the results of the Stage 2 Contamination Assessment are as follows:

1. Is the Site suitable for development as a new social housing complex with new public domain facilities?
2. Is remediation required within the Site to make it suitable for the proposed development?
3. Are further investigations required to assess the suitability of the Site for the development or to assess the need for remediation?
4. What is the classification of the material, potentially requiring offsite disposal in accordance with the NSW EPA (2014) Waste Classification Guidelines?
5. What environmental and occupational safety management controls will be required for the construction of the Site?
6. Are the data reliable and adequate for decisions to be made about the future use of the Site?

A.1.3 Step 3 – Identify information inputs to the decision or goal of the study

The inputs required to make the above decisions listed in Step 2 are as follows:

1. existing data for the Site [from previous investigations including ERM (2001) and PB (2004)];
2. site boundaries;
3. concept development plans provided by LAHC (refer to Appendix H);
4. appropriate NSW EPA guideline documents;
5. appropriate assessment criteria (refer to Section 7);
6. appropriately experienced environmental consultants;
7. geological and geotechnical data and information relevant to subsurface structures;
8. hydrogeological data;
9. concentrations of CoPC in different sampled media (eg fill/soil types and groundwater);
10. observations regarding the presence of building materials or other waste materials including materials potentially containing ash, asbestos, staining, odours and discolouration of the soil media;
11. observation data for presence of light and dense non-aqueous phase liquids (LNAPL/DNAPL), odours and discolouration of the groundwater and surface water media;
12. distribution of identified contamination both laterally and vertically;
13. identification of potential contamination below permanent structures; and
14. QA/QC data.

A.1.4 Step 4 – Define the study boundaries

The boundaries of the investigation have been identified as follows:

1. Spatial boundaries – The lateral assessment is limited to the boundary of the Site as shown on Figure 4.1.
2. Vertical boundaries – The vertical study boundary will be limited to the deepest proposed depth required for the Stage 2 Contamination Assessment which is anticipated to be 2 m below depth of groundwater (where groundwater monitoring wells are proposed to be installed).
3. Temporal boundaries – the temporal boundaries of the assessment have been determined based on application of current guidelines and that redevelopment works will commence before new contamination sources arise in the Site that could cause significant contamination between the time of this investigation and the commencement of the redevelopment works.

Step 5 – Develop a Decision Rule

The decision rules for this investigation are as follows:

1. If it is determined that data generated through this investigation are reliable and suitably characterise soil and groundwater contamination the data set will be compared against the adopted Site Assessment Criteria (SAC).

    a) If comparison of data generated through this investigation meets the adopted SAC, then the Site will be considered suitable for the proposed development in accordance with planning approval requirements.

    b) If comparison of data generated through this investigation does not meet the adopted SAC, then further assessments or remediation may be recommended as a basis for making the Site suitable for the proposed development.

2. If it is determined that data generated through this investigation are not reliable and/or do not suitably characterise soil and groundwater contamination as required for determining land use suitability, then further investigations may be recommended prior to comparison against the SAC.

A.1.5 Step 6 – Specify performance or acceptance criteria that the data need to achieve

Acceptable limits on decision errors must be applied based on the Data Quality Indicators (DQIs) of precision, accuracy, representativeness, comparability and completeness (PARCC).

The tolerable limits on decision errors for data that EMM considers acceptable are:

1. Probability that 95% of data satisfied the DQIs, therefore the limit on the decision error is 5% that a conclusive statement may be incorrect.

2. In applying statistical analysis of a data set (where applicable/sufficient data set exists):

    a) No individual sample will report a concentration that exceeds 250% of the SAC.

    b) A normal distribution will only be used if the coefficient of variance is not greater than 1.2.

    c) The standard deviation of a sample population will not exceed 50% of the SAC.

3. A robust QA/QC program will be implemented and that appropriate sampling and analytical density for the purposes of the investigations and representative sampling is undertaken.

    The possible outcomes on making an error in the decision are:

    a) Basing decisions on unreliable data and consequently making incorrect decisions regarding land use suitability.

    b) Basing decisions on unreliable data and inappropriately defining a remedial or management strategy.

    This could result in the following outcomes:

        i) Confirmation that the Site is suitable for the proposed land uses when it is not (or vice versa).

ii) Possible underestimation (or overestimation) of remediation extent required resulting in cost implications for the client.

iii) Adoption of inappropriate remediation strategies for the identified contamination resulting in cost implications for the client.

Relevant performance and/or acceptance criteria were determined for QA/QC purposes and comparison of soil and groundwater analytical results to appropriate assessment criteria. The DQIs are described in Section A.2 below. The adopted SAC are described in Section 7.

A.1.6 Step 7 – Optimise the design

Based on the previous steps 1 to 6 of the DQO process, the design (ie scope of works or sample and analysis quality plan) for obtaining the required data (ie proposed field and laboratory programs) is presented in Section 5.

A.2 Data quality indicators

The project DQIs have been established to set acceptance limits on field and laboratory data collected as part of this investigation. For both field and laboratory procedures acceptance limits are set at different levels for different projects and by the laboratories. Non-compliances with acceptance limits are to be documented and discussed in the report. The DQIs are presented in Table A.1 below.

Table A.1 Data Quality Indicators

DQI	Field	Laboratory	Acceptability Limits
Completeness	• All critical locations sampled • All samples collected • SOPs appropriate and complied with • Experienced sampler • Documentation correct	• All critical samples analysed and for all CoPC • Appropriate methods implemented • Appropriate laboratory limits of reporting (LORs) • Sample documentation complete • Compliance with sample holding times	• As per ASC NEPM (2013) • < nominated criteria
Comparability	• Sample SOPs used on each occasion • Experienced sampler • Climatic conditions • Same types of samples collected	• Same analytical methods used (including clean-up) • Sample laboratory LORs (justify/quantify if different) • Same laboratories (NATA accredited) • Consistent reported units of measurement	• As per ASC NEPM (2013) • < nominated criteria
Representativeness	• Appropriate media sampled	• All critical samples analysed and for all CoPC as required for the project objectives	• Appropriate samples analysed
Precision	• SOPs appropriate and complied • Collection of blind and split duplicate • samples	• Analysis of: – Blind duplicate samples (1 in 20 samples) – Split duplicate samples (1 in 20 samples) • Laboratory duplicate sample	• RPD of < 30%(organics) and <50% (inorganics) • RPD of < 30% (organics) and <50% (inorganics) • RPD of < 50%

Table A.1 Data Quality Indicators

DQI	Field	Laboratory	Acceptability Limits
Accuracy	• SOPs appropriate and complied • Collection of rinsate blanks	• Analysis of: – Field/trip blanks (1/day) – Method blanks – Matrix spikes – Matrix spike duplicates – Surrogate spikes – Laboratory control samples – Laboratory prepared spikes – Reagent blank	 • Non-detect for CoPC • Non-detect for CoPC • 70 to 130% • RPD of <30% • 70 to 130% • 70 to 130 % • 70 to 130% • Non-detect for CoPC

All reporting must comply with NSW OEH (2011) Guidelines for Consultants Reporting on Contaminated Study Areas, as applicable. The QA/QC procedures to be adopted as part of the sampling program are detailed in Appendix B.

Appendix B

Quality assurance and quality control

B.1 Field QA/QC

B.1.1 Sampling team

Soil samples were collected between 27 November and 29 November 2019 by Lachlan Lewis, a suitably qualified and experienced EMM Environmental Scientists by reference to written Standard Operating Procedures for each task undertaken as part of the field program. Groundwater samples were collected on 18 December 2019 by Lachlan Lewis.

B.1.2 Sample collection

Soil and groundwater sample were collected in accordance with the SAQP (AECOM, 2018b) with the exception that boreholes were completed to a maximum depth of 5 m bgs and did not hit bedrock, which was encountered at significantly deeper depths (6.8 to 14.0 m bgs) as part of the geotechnical investigation (Douglas, 2020) than was anticipated in the SAQP (<5 m bgs).

B.1.3 Sample handling and preservation

A new pair of disposable nitrile sampling gloves was donned between collection of each soil and groundwater sample. Soil samples were immediately placed into laboratory prepared and supplied, acid washed and solvent jars with screw top Teflon-lined lids. Sample jars were filled so that no headspace remained (where practical).

Soil and groundwater samples were placed either in a chilled, insulated container with ice or in a sample refrigerator between sampling and analysis. Soil and groundwater samples were preserved for the various contaminants of concern in accordance with the requirements of NEPC (1999) as detailed in Table B.1.

Table B.1 Sample containers and preservation

Matrix	Analyte	Container	Preservation
Soil	All analytes	250 mL Glass screw top jar	Unpreserved, 4ºC
	SPOCAS	Zip lock plastic bag	Unpreserved, 4ºC (24hr holding time) or freeze (indefinite holding time)
Water	Metals (Ultra Trace)	125 ml Clear Plastic Bottle	Field Filtered, Ultra Pure Nitric Acid, 4ºC
	Chromium VI	125 ml White Plastic Bottle (28 day THT)	Sodium Hydroxide, 4ºC (28 day THT)
		125 ml Clear Plastic (24 hr THT)	Unpreserved, 4ºC (24 hr THT)
	TPH(C10-C36), PAH	500 ml Amber Bottle	Unpreserved, 4ºC
	TPH(C6-C9), BTEX	2 x 40 ml Amber Vials	Hydrochloric Acid, 4ºC
	Cyanide	250 ml White Plastic Bottle	Cd(NO3)2, NaOH, 4ºC
	Methane	2 x 40 ml Amber Vials	Sodium Bisulphate, 4ºC
	TOC	1 x 40 ml Amber Vial	Sulphuric Acid, 4ºC
	Major Anions, Cations, pH, Sulfate, Alkalinity	1.25 L4ºC	Unpreserved, 4ºC
	Ammonia, Nitrogen	250 ml Clear Plastic	Sulphuric Acid, 4ºC
	Ferrous Iron	80 ml Clear Plastic	Filtered, Hydrochloric Acid, 4ºC

Sample numbers, depths, preservation and analytical requirements were recorded on the chain-of-custody documentation (signed copies provided with the laboratory reports in Appendix G), which accompanied the samples to the laboratory.

It is noted that no sample batches reported temperatures greater than 4ºC ± 2 when received by the laboratory.

B.1.4 Calibration

During the field investigation calibration of the PID (MiniRAE 3000) was undertaken in accordance with manufacturer's instructions. The PID was calibrated prior to delivery by the supplier, and at least once daily (at the start of each sampling day) with 100 ppm of isobutylene.

The water quality meter (YSI Professional Plus) was calibrated to delivery by the supplier, and at least once daily (at the start of each sampling day) in the field with the required calibration solutions.

All calibration results were satisfactory. Details of calibration are provided in Appendix D.

B.1.5 Field intra and inter-laboratory duplicate samples

The purpose of duplicate samples is to estimate the variability of a given characteristic or contaminant associated with a population. For this assessment, intra-laboratory duplicate soil samples were collected in the field at a rate of at least one in ten primary samples. Inter-laboratory duplicate soil samples were collected at a rate of at least one in twenty primary samples.

The field duplicate soil samples were obtained from similar soils of an identical depth and immediately adjacent to the primary sample by placing approximately equal portions of the primary sample into two sample jars. Samples were not homogenised due to potential loss of volatiles.

Duplicate samples were labelled so as to conceal their relationship to the primary sample from the laboratory and the key to the duplicate samples was recorded in the field notebook.

It is common that significant variation in duplicate results is often observed (particularly for solid matrix samples) due to sample heterogeneity or low reported concentrations near the LOR. The overall precision of field intralaboratory duplicates, inter-laboratory duplicate samples and laboratory duplicates is generally assessed by their Relative Percent Difference (RPD), given by:

$$RPD = \frac{|D_1 - D_2|}{(D_1 + D_2)/2} \times 100$$

Where: D_1 is the primary sample measurement

D_2 is the duplicate sample measurement

RPDs for soil duplicate samples were compared to criteria presented in the DQI table above. The field duplicate and corresponding primary sample results and calculated RPDs are presented in Tables 3 and 4 in Appendix F.

Table B.2 provides summary of the field duplicate samples analytes and the RPD results which were above the DQIs.

Table B.2 Soil duplicate results

QA/QC Sample ID	Primary sample			Duplicate type	Analytes	RPD exceedances
	Location	Depth	Soil Type			
QC100	BH02	2.5	Natural	Intra	BTEX, Metals, PAH, TPH, TRH	Nickel (100%) C_{15}-C_{28} (52%) +C_{10}-C_{36} (Sum of total) (61%) C_{29}-C_{36} (76%) C_{10}-C_{40} (Sum of total) (57%) C_{16}-C_{34} (64%)
QC200	BH08	2.0	Natural	Inter	BTEX, Metals, PAH, TPH, TRH	Chromium (III + VI) (100%), Nickel (86%) C_{15}-C_{28} (144%) C_{29}-C_{36} (136%) C_{10}-C_{40} (Sum of total) (137%) C_{16}-C_{34} (141%) C_{34}-C_{40} (99%)
QC101	BH09	0.1	Fill	Intra	BTEX, Metals, PAH, TPH, TRH	No exceedances
QC201	BH15	1.5	Natural	Inter	BTEX, Metals, PAH, TPH, TRH	Chromium (III + VI) (167%) Copper (120%) Lead (182%) Nickel (133%) Zinc (189%) C_{15}-C_{28} (48%) C_{29}-C_{36} (47%) C_{10}-C_{40} (Sum of total) (38%) C_{16}-C_{34} (39%)
QC102	BH19	0.5	Fill	Intra	BTEX, Metals, PAH, TPH, TRH	Copper (64%) Mercury (120%) Zinc (60%)
QC202	MW21	0.3	Fill	Inter	BTEX, Metals, PAH, TPH, TRH	Copper (173%) Lead (90%) Nickel (164%) Zinc (142%) C_{15}-C_{28} (141%) C_{29}-C_{36} (168%) C_{10}-C_{40} (Sum of total) (192%) C_{16}-C_{34} (171%) C_{34}-C_{40} (166%)

Table B.2 Soil duplicate results

QA/QC Sample ID	Primary sample			Duplicate type	Analytes	RPD exceedances
	Location	Depth	Soil Type			
QC103	MW21	1.3	Fill	Intra	BTEX, Metals, PAH, TPH, TRH	C_{15}-C_{28} (42%) +C_{10}-C_{36} (Sum of total) (37%) C_{29}-C_{36} (31%) C10-C_{40} (Sum of total) (34%) C_{16}-C_{34} (40%)
QC203	MW21	1.3	Fill	Inter	BTEX, Metals, PAH, TPH, TRH	Nickel (100%) Zinc (187%) C_{29}-C_{36} (46%) C_{34}-C_{40} (71%)

RPDs for groundwater duplicate samples have been compared to criteria presented in the DQI table above and exceedances are presented in Table B.3 below.

Table B.3 Groundwater duplicate results

QA/QC Sample ID	Primary sample	Duplicate type	Analytes	RPD exceedances
QC104	MW11_191218	Intra	BTEX, Metals, PAH, TPH, TRH	No exceedances
QC204	MW21_191218	Inter	BTEX, Metals, PAH, TPH, TRH	No exceedances

The majority of the above soil RPD exceedances indicate variability of metal concentrations in fill material and can be attributed to either the sample heterogeneity of the fill material l or to low detected concentrations (<10x LOR). In some instances (QC100/BH02, QC200/BH08, QC211/BH61, QC202/BH49, QC228/MW21 and QC203/MW21) high RPDs were calculated for one or more of the TPH and TRH results where there were elevated concentration of these analytes. Given the elevated concentrations of the analytes in the samples, the high RPDs for these samples are not considered an impact to the overall the assessment of this data.

There were no RPD exceedances in water results.

B.1.6 Decontamination procedure

Sampling equipment was cleaned in phosphate free detergent (“Decon” 90) solution, rinsed in potable water and then finally rinsed in laboratory supplied water prior to use and between each sampling location.

Four rinsate blank samples were collected using laboratory supplied rinse water, which was run over the decontaminated sampling equipment at the end of each day’s fieldwork. The samples were used to evaluate whether contaminants were likely to have been introduced by contact of the sample medium with sampling equipment.

The rinsate results are presented in Table 4 in Appendix F.

Table B.4 below presents a summary of the results of the blank samples collected and analysed.

Table B.4 Rinsate sample results

Rinsate sample ID	Date	Results
QC300	27/11/2019	All results less than LOR
QC301	28/11/2019	All results less than LOR
QC302	29/11/2019	All results less than LOR
QC304	18/12/2019	Copper (0.002 mg/L) Lead (0.003 mg/L)

One rinsate (QC304) returned results with detections of copper and lead. The detections are considered trace amounts which are not considered an impact to the overall the assessment of this data. Refer to detailed report below.

B.1.7 Trip blanks

A trip blank assesses the potential for cross contamination during transit from the investigation site to the laboratory. Samples are typically analysed for the same contaminants targeted as part of the investigation.

Two soil trip blank samples and one water trip blank samples were utilised during storage and transport of the samples, which complied with the SAQP (AECOM, 2018b). The trip blank results are presented in Tables 3 and 4 in Appendix F. The samples and results are summarised in Table B.5.

Table B.5 Trip blank sample results

Batch	Field ID	Date	Matrix	Results
ES1939690	TB_191127	27/11/2019	Soil	All results less than LOR
ES1939690	TB_191128	28/11/2019	Soil	All results less than LOR
ES1942135	TB_191218	18/12/2019	Water	All results less than LOR

The results indicate that there was no significant loss or gain of volatile constituents from soil and groundwater samples whilst in transit from the investigation site to the laboratory.

B.2 Laboratory QA/QC

B.2.1 Analytical laboratory

Samples were submitted to the following laboratories:

- ALS Laboratory Group (ALS) in Smithfield, NSW (primary laboratory); and
- Envirolab Services Pty Ltd in Chatswood, NSW (secondary laboratory).

The ALS NATA accreditation number is 825, and its analytical procedures are based on established internationally-recognised procedures such as those published by the US EPA, APHA, AS and NEPM (1999). In house procedures are employed by ALS in the absence of documented standards.

The Envirolab NATA accreditation number is 2901, and its analytical procedures are based on methods referenced from NEPC, ASTM, modified USEPA/APHA. The laboratory quality control report is included with the laboratory analytical certificates in Appendix G.

DATA QUALITY ASSURANCE AND QUALITY CONTROL REPORT

Project number:	J190730	**Matrix type:**	Soil
Client:	Land and Housing Corporation	**Samples analysed:**	83
Site(s):	600 – 660 Elizabeth Street Redfern	**Laboratory:**	ALS (primary) Envirolab (secondary)
Sampling Events:	Soil – 27-29 November 2019 Groundwater – 18 December 2019	**Lab reference:**	ES1939690, ES1942135, ES1942520 (ALS) 232338, 233598 (Envirolab)
Validation by:	A Tennant	**Date:**	31/01/2020
Verification by:	L Lewis	**Date:**	31/01/2020

Field QA/QC	
Sampling personnel	Soil sampling was conducted by L Lewis on 27 – 29 November and groundwater sampling on 18 December.
Sampling Methodology	Soil samples were collected via grab sample from auger flight and push tube drilling methods. Groundwater samples were obtained via low flow purging method.
Chain of Custody (COC)	Chain of custody documents were completed by EMM (L Lewis).
Analysis Request	Laboratory analysis request and sample receipt notification reviewed and approved by EMM.
Field Blanks	No field blanks were analysed as part of this assessment.
Rinsate Blanks *(QC300, QC301, QC302, QC304_191218)*	Rinsate blank samples were collected at a frequency of one per day of sampling (four in total). Rinsate samples were collected from the auger flight, hand trowel and interface probe. Concentrations reported below the LOR for all analytes tested with the exception of QC304_191218 (groundwater sampling event). Concentrations of 0.002 mg/L for copper and 0.003 mg/L for lead were reported for this rinsate sample. Since these concentrations are considered to be trace amounts (slightly above the LOR) and all other analytes were below the LOR, this is not expected to have a significant implication for data quality.
Trip Blanks *(TB_191127, TB_191128, TB191218)*	Trip blanks were included at a frequency of at least of one per sampling event (three in total). Concentrations were not detected above the LOR for all analytes tested.
Trip Spikes *(TS)*	Trip spikes were included at frequency of one per soil sampling event (one in total). Recoveries were within acceptable control limits (> 70%).
Frequency of field QC Intra-laboratory duplicates *(QC_100, QC101, QC102, QC103, QC104_191218)* Interlaboratory duplicates (*QC200, QC201, QC202, QC203, QC203_191218)*	Intra- and inter-laboratory field duplicate samples were collected at a frequency of one per twenty primary samples (five of each in total).
Handling and preservation	All samples were received at the laboratories in appropriate sample containers. Samples were received preserved and chilled at the primary laboratory (1.3°C, 4.1°C, 2.4°C) within the recommended temperature range (< 6°). Water samples were received preserved and chilled at the secondary laboratory within the recommended temperature range. Soil samples were received at the secondary laboratory at an elevated temperature (11.8°C). The temperature exceedance at the secondary laboratory is likely due to transport of the inter-laboratory duplicate from the primary laboratory. The minor temperature exceedance is not expected to have a material impact on the integrity of the data as there were mostly no exceedances of the field duplicate RPDs noted. Results were within the same order of magnitude, but the highest value will be considered for reporting purposes.

DATA QUALITY ASSURANCE AND QUALITY CONTROL REPORT

Project number:	J190730	**Matrix type:**	Soil
Client:	Land and Housing Corporation	**Samples analysed:**	83
Site(s):	600 – 660 Elizabeth Street Redfern	**Laboratory:**	ALS (primary) Envirolab (secondary)
Sampling Events:	Soil – 27-29 November 2019 Groundwater – 18 December 2019	**Lab reference:**	ES1939690, ES1942135, ES1942520 (ALS) 232338, 233598 (Envirolab)
Validation by:	A Tennant	**Date:**	31/01/2020
Verification by:	L Lewis	**Date:**	31/01/2020

Laboratory QA/QC	
Tests requested/reported	Samples were analysed and reported as requested on the COC.
Holding time compliance	Samples were extracted and analysed within recommended holding times, with the exception of samples analysed for TCLP leachate procedure for B(a)P and silica gel clean-up. The holding time breaches were 12 days or less and were still preserved and chilled at the laboratory at the time of extraction.
Laboratory Accreditation	The laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) and Envirolab Services Pty Ltd (Sydney) SGS Australia Pty Ltd (Sydney), both National Association of Testing Authorities (NATA) accredited laboratories.
Frequency of laboratory QC	The laboratories reported a sufficient frequency of quality control samples to assess whether the results have been reported to an acceptable accuracy and precision. The primary laboratory noted that the frequency of laboratory duplicates and matrix spike samples for TRH – Semivolatile fraction, PAH/Phenols (GC/MS – SIM), and Semivolatile Organic Compounds did not meet the expected rate as specified in the ASC NEPM and ALS internal standards. This is due to the small sample batch size and is not expected to significantly affect the overall quality of the data. Additionally, most other laboratory QC rates were met.
Method Blank	*Soil* Method blank concentrations were not detected above the LOR for all analytes tested *Water* Method blank concentrations were not detected above the LOR for all analytes
Laboratory duplicate RPDs	*Soil* **ALS –** Laboratory duplicate (LD) Relative Percentage Differences (RPD) were within control limits exception of the following: - Total metals and TRH The laboratory duplicate RPDs are presented in the laboratory QA/QC report (Appendix G). Given that other QA/QC were within control limits, this is not expected to have a material impact on data integrity. **Envirolab –** Laboratory duplicate (LD) Relative Percentage Differences (RPD) were within control limits for all analytes except TRH C10-C40. The RPD for these results were accepted by the laboratory due to the non-homogenous nature of the sample. The laboratory duplicate RPDs are presented in the laboratory Quality Control Report (Appendix G). *Water* **ALS –** Laboratory duplicate (LD) Relative Percentage Differences (RPD) were within control limits for all analytes. **Envirolab –** no LD reported.

DATA QUALITY ASSURANCE AND QUALITY CONTROL REPORT

Project number:	J190730	**Matrix type:**	Soil
Client:	Land and Housing Corporation	**Samples analysed:**	83
Site(s):	600 – 660 Elizabeth Street Redfern	**Laboratory:**	ALS (primary) Envirolab (secondary)
Sampling Events:	Soil – 27-29 November 2019 Groundwater – 18 December 2019	**Lab reference:**	ES1939690, ES1942135, ES1942520 (ALS) 232338, 233598 (Envirolab)
Validation by:	A Tennant	**Date:**	31/01/2020
Verification by:	L Lewis	**Date:**	31/01/2020

Laboratory control spike recovery	*Soil* Laboratory Control Spikes (LCS) recoveries were within control limits. *Water* LCS recoveries were within control limits exception of the following: • Phenolic Compounds, Nitroaromatics and Ketones, and Haloethers The LCS recoveries are presented in the laboratory QA/QC report (Appendix G). Given that other QA/QC were within control limits, this is not expected to have a material impact on data integrity.
Matrix spike recovery	Matrix spike (MS) recoveries (where reported) for soil and water were within control limits.
Surrogate spike recovery	*Soil* Surrogate spike recoveries were within control limits exception of the following: • PAH, Base/Neutral Extractable, and TPH(V)BTEX The surrogate spike recoveries are presented in the laboratory QA/QC report (Appendix G). Given that other QA/QC were within control limits, this is not expected to have a material impact on data integrity. *Water* Surrogate spike recoveries were within control limits.

Data Validation	
Comparison of Field Observations and Laboratory Results	No anomalous results between field observations and analysis results were noted.
Data transcription	A random check of the laboratory results identified no anomalies between the electronic data, the laboratory reports, and tables generated by EMM.
Limits of Reporting (LOR)	LORs were sufficiently low to enable assessment against adopted guideline criteria.
Inter-laboratory duplicate RPDs	*Soil* Field duplicate RPDs were reported within control limits with the exception of the following:
Soil	Nickel
QC100/BH02_2.5	Copper
QC101/BH09_0.1	Zinc
QC102/BH19_0.5	Mercury
QC103/MW21_1.3	C15-C28
	+C10-C36 (Sum of total)
Water	C29-C36
QC104/MW11	C10-C40
	C16-C34
	The majority of the above soil RPD exceedances can be attributed to either the sample heterogeneity of the material or to low detected concentrations. The high RPDs for these samples are not considered an impact to the overall the assessment of this data.

DATA QUALITY ASSURANCE AND QUALITY CONTROL REPORT

Project number:	J190730	**Matrix type:**	Soil
Client:	Land and Housing Corporation	**Samples analysed:**	83
Site(s):	600 – 660 Elizabeth Street Redfern	**Laboratory:**	ALS (primary) Envirolab (secondary)
Sampling Events:	Soil – 27-29 November 2019 Groundwater – 18 December 2019	**Lab reference:**	ES1939690, ES1942135, ES1942520 (ALS) 232338, 233598 (Envirolab)
Validation by:	A Tennant	**Date:**	31/01/2020
Verification by:	L Lewis	**Date:**	31/01/2020

	Water Field duplicate RPDs were reported within control limits.
Inter-laboratory duplicate RPDs	*Soil* Field duplicate RPDs were reported within control limits with the exception of the following:
Soil	Nickel
QC200/BH08_2.0	Chromium (III + VI)
QC201/BH15_1.5	Copper
QC202/MW21_0.3	Lead
QC203/MW21_1.3	Zinc
	C15-C28
Water	C29-C36
QC204/MW21	C10-C40
	C16-C34
	C34-C40
	The majority of the above soil RPD exceedances can be attributed to either the sample heterogeneity of the material or to low detected concentrations (<10x LOR). The high RPDs for these samples are not considered an impact to the overall the assessment of this data.
	Water Field duplicate RPDs were reported within control limits.

Chromatograms

N/A

Comments

The assessment of field and laboratory QA/QC data indicated that the reported analytical results are representative of the conditions at the sample locations analysed and that the overall quality of the data produced is considered to be acceptably reliable for the purpose of this investigation. Despite the minor variations/outliers summarised above, the laboratory data are considered to provide and appropriate level of confidence in the accuracy, comparability, completeness and precision of the analytical results.

Appendix C

Field forms

Well I.D: _____

Well condition: Good, New

Project: LAHC, Elisabeth St

Project number: J190730

Client: Land & Housing Corp

Water Quality Meter: YSI Pro Plus

Development method: Bailer

Date: 2/12/19

Field staff: Henry Woakes

Weather: Overcast, Cool

Calibration date: 2/12/19

Serial number: _____

PRE DEVELOPMENT

Time: 16:00

SWL (mbtoc): 2.01

TD (mbtoc): 4.45

Stickup (magl): -0.1

Well volume: ~8L

POST DEVELOPMENT

Time: 16:50

SWL (mbtoc): 2.06

TD (mbtoc): 4.48

Volume purged: ~10L

Comments: Limited clarity change

Time	Volume ~Litres	Temp °C	EC µs/cm	DO	pH	Redox mV	Olfactory / Observations (Colour, turbidity, odour)
16:01	1	19.7	379.5	22.1	6.35	29.5	Dark brown, turbid, n/a
16:04	5	19.3	344.1	25.3	6.23	17.9	" "
16:08	10	19.0	338.3	24.3	6.26	13.0	" "
16:24	25	19.1	337.6	16.1	6.20	20.3	" "
16:32	50	19.1	344.8	16.5	6.17	19.5	" "
16:42	75	19.0	346.3	13.8	6.21	16.5	" "
16:49	100	18.9	339.6	10.0	6.22	20.8	" "

Additional comments: PID in headspace - 0.1ppm, in barrel = 0.1ppm
Well located near PCYC entrance

Well I.D: _____

Well condition: Good, New

EMM creating opportunities

Project: LAHC, Elizabeth St | Date: 2/12/19

Project number: 5190730 | Field staff: Henry Norbes

Client: Land & Housing Corp | Weather: Overcast, cool

Water Quality Meter: YSI PRO PLUS | Calibration date: 2/12/19 @ 12:58

Development method: Bailer | Serial number: _____

PRE DEVELOPMENT

Time: 15:10

SWL (mbtoc): 1.56

TD (mbtoc): 4.19

Stickup (magl): -0.08

Well volume: ~ 7L

POST DEVELOPMENT

Time: 15:55

SWL (mbtoc): 1.60

TD (mbtoc): 4.20

Volume purged: ~ 110L

Comments: Minimal daily change

Time	Volume ~ Litres	Temp °C	EC µs/cm	DO %	pH	Redox mV	Olfactory / Observations (Colour, turbidity, odour)
15:10	1	24.1	440.7	48.8	6.47	39.1	Brown, turbid, no odour
15:15	5	22.1	402.2	5.9	6.08	26.8	" "
15:21	10	22.2	402.7	4.7	6.08	25.9	" "
15:30	25	21.9	402	23.5	6.31	-14.1	" "
15:39	50	21.4	395.2	18.3	6.26	-21.2	" "
15:44	75	21.7	393.4	25.9	6.21	-21.0	" "
15:50	100	21.3	247	19.9	6.26	-14.8	" "
15:55	110	21.3	240	18.7	6.28	-15.2	" "

Additional comments: PID in headspace = 0.3ppm, in board = 0.4ppm
Well located in basketball court.

Well I.D: _____

Well condition: Good, New

Project: LAHC, Elizabeth St

Project number: J190730

Client: Land & Housing Corp

Water Quality Meter: YSI Pro-Plus

Development method: Bailer

Date: 2/12/2019

Field staff: Henry Noakes

Weather: Overcast, cool

Calibration date: 2/12/19

Serial number: _____

PRE DEVELOPMENT

Time: 14:30

SWL (mbtoc): 1.35

TD (mbtoc): 4.52

Stickup (magl): -0.09

Well volume: ~10L

POST DEVELOPMENT

Time: 15:05

SWL (mbtoc): 1.37

TD (mbtoc): 4.52

Volume purged: ~100L

Comments: Limited change in clarity

Time	Volume ~ Litres	Temp °C	EC µs/cm	DO %	pH	Redox mV	Olfactory / Observations (Colour, turbidity, odour)
14:31	1	21	490.4	58.3	6.25	179	Brown, turbid, No odour
14:33	5	19.6	408.9	47.1	6.32	138.5	"
14:38	10	19.6	406.4	32.8	6.21	123.8	"
14:46	25	20	409.8	11.8	6.17	98.4	"
14:56	50	19.3	395.2	20.9	6.24	77.7	"
15:00	75	19.4	391.3	20.1	6.26	58.8	"
15:04	100	19.3	388.7	21.5	6.29	49.9	"

Additional comments: Well located at northern extent of site, near BH111. WQM calibration @ 12:58. Ph(4) = 4.01, Ph(7) = 6.98, Ph(10) = 9.97 √OK, EC(0) = 0.0 µs/cm, EC(500) = 310 @ 23°C, calibrated. PID in headspace = 0.0 ppm, in barrel (cuttings) = 0.0 ppm.

GROUNDWATER WELL SAMPLING RECORD FORM

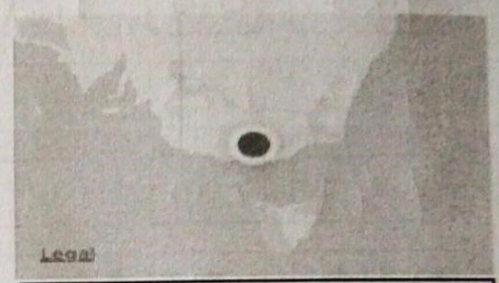
EMM
creating opportunities

Job No.: J190730

Site location:

Date & Time on site: 18/12/19

Location:



Attendees :

EMM Technician: L Lewis

Well ID: MW11

WELL INFORMATION

Diameter of standpipe (mm): 50

Total Depth of Well: 4.530 mbtoc

Standpipe stick up (m):

Top of Screen: mbtoc

Surveyed reference point:

Bottom of Screen: mbtoc

LNAPL detected: –

Thickness of LNAPL: mbtoc

EQUIPMENT INFORMATION

Depth of Pump: 4 mbtoc

Drive: Sec

Depth to water after pump placement: mbtoc

Vent: Sec

Length of Tubing: m

Throttle: PSI

Purging and sampling method: - low flow

Controller Info: Geotech

WQM model: - YSI

Well Development Information

Time	Volume L	SWL mbtoc	pH Units	Conductivity us/cm	Redox mV	DO Mg/L	Temperature Deg Celcius
7:35	0.5	1.393	5.52	505	124.0	0.70	19.7
7:38	1.25		5.56	450.2	115.0	0.36	19.6
7:41	2.0		5.53	442.9	108.2	0.30	19.6
7:44	2.75		5.54	442.7	99.3	0.20	19.5
7:47	3.5		5.59	438.2	80.1	0.30	19.7
7:50	4.25		5.76	435.7	89.7	0.29	19.6
7:53	5.0		5.76	434.4	68.9	0.30	19.6
7:56	5.75	1.420	5.77	433.6	67.1	0.35	19.6

Depth to water at end of purging (mBTOC): 1.420

Depth to water after collection of samples (mBTOC): 1.422

Appearance Observations: [illegible]

QA/QC:

QC100 (intra-lab dup

GROUNDWATER WELL SAMPLING RECORD FORM

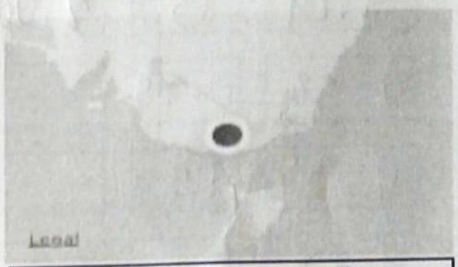
EMM creating opportunities

Job No.: J190730

Site location: 600-660 Elizabeth St

Date & Time on site: 18/12/19

Location:



Attendees :

EMM Technician: L Lewis

Well ID: MW20

Redfern NSW

WELL INFORMATION

Diameter of standpipe (mm):	50	Total Depth of Well:	4.415 mbtoc
Standpipe stick up (m):		Top of Screen:	mbtoc
Surveyed reference point:		Bottom of Screen:	mbtoc
LNAPL detected:	–	Thickness of LNAPL:	– mbtoc

EQUIPMENT INFORMATION

Depth of Pump:	3.8	mbtoc	Drive:		Sec
Depth to water after pump placement:		mbtoc	Vent:		Sec
Length of Tubing:		m	Throttle:		PSI

Purging and sampling method: – low flow

Controller Info: Geotech

WQM model: – YSI

Well Development Information

Time	Volume	SWL	pH	Conductivity	Redox	DO	Temperature
	L	mbtoc	Units	us/cm	mV	Mg/L	Deg Celcius
9:29	0	2.002	5.90	297.8	97.8	3.35	19.9
9:32	0.75		5.67	295.5	103.6	2.98	19.8
9:35	1.5		5.65	296.7	104.6	2.85	19.8
9:38	2.25		5.65	298.1	105.2	2.76	19.8
9:41	3.0	2.020	5.65	301.1	105.0	2.37	19.8

Depth to water at end of purging (mBTOC): 2.020

Depth to water after collection of samples (mBTOC): 2.022

Appearance Observations: PID: 0.6 ppm

GROUNDWATER WELL SAMPLING RECORD FORM

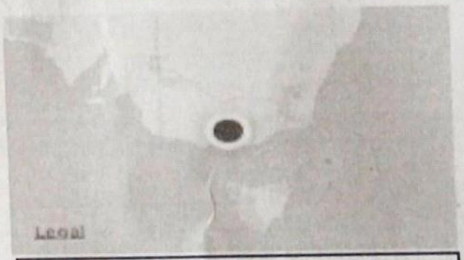
EMM creating opportunities

Job No.: 5190730

Site location: 600-650 Elizabeth St

Date & Time on site: 18/12/19

Location:



Attendees :

EMM Technician: L Lewis

Well ID: MW21

Redfern NSW

WELL INFORMATION

Diameter of standpipe (mm): 50

Total Depth of Well: 4.20 mbtoc

Standpipe stick up (m):

Top of Screen: mbtoc

Surveyed reference point:

Bottom of Screen: mbtoc

LNAPL detected: –

Thickness of LNAPL: mbtoc

EQUIPMENT INFORMATION

Depth of Pump: 3.5 mbtoc

Drive: Sec

Depth to water after pump placement: mbtoc

Vent: Sec

Length of Tubing: m

Throttle: PSI

Purging and sampling method: - low flow

Controller Info: Geotech

WQM model: - YSI

Well Development Information

Time	Volume L	SWL mbtoc	pH Units	Conductivity us/cm	Redox mV	DO Mg/L	Temperature Deg Celcius
10:50		1.600	5.85	404.9	-18.9	0.1	22.4
10:53			5.85	398.4	-24.4	0.06	22.4
10:56			5.84	399.0	-29.4	0.08	22.3
10:59			5.75	399.6	-31.5	0.13	22.2
11:02		1.619	5.72	398.1	-37.5	0.18	22.2

Depth to water at end of purging (mBTOC): 1.619

Depth to water after collection of samples (mBTOC): 1.624

QC204

Appearance Observations: PID: 0.2 ppm

clear to brown

Appendix D

Calibration certificates

Calibration & Service Report
Gas Monitor

Company:	Active Environmental Solutions Hire	**Manufacturer:**	RAE Systems	**Serial #:**	592-915472
Contact:	Aleks Todorovic	**Instrument:**	MiniRAE 3000	**Asset #:**	-
Address:	2 Merchant Avenue	**Model:**	PGM 7320	**Part #:**	-
	Thomastown Vic 3074	**Configuration:**	VOC	**Sold:**	-
Phone:	03 9464 2300 | **Fax**: 03 9464 3421	**Wireless:**	-	**Last Cal:**	-
Email:	hire@aesolutions.com.au	**Network ID:**	-	**Job #:**	-
		Unit ID:	-	**Cal Spec:**	Std

Item	Test	Pass/Fail	Comments
Battery	Li Ion	✓	
Charger	Charger, Power supply	✓	
	Cradle	✓	
Pump	Flow	✓	>500 mL/min
Filter	Filter, fitting, etc	✓	
Alarms	Audible, visual, vibration	✓	
Display	Operation	✓	
PCB	Operation	✓	
Connectors	Condition	✓	
Firmware	Version	✓	2.16
Datalogger	Operation	✓	
Monitor Housing	Condition	✓	
Case	Condition/Type	✓	
Sensors			
Oxygen		-	
LEL		-	
PID	10.6eV	✓	
Toxic 1		-	
Toxic 2		-	
Toxic 3		-	
Toxic 4		-	
Toxic 5		-	

Engineer's Report

Setup, Service and Calibration for Hire

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen								
LEL								
PID	10.6eV	1062R124396	Isobutylene	100 PPM	2440-3-1	1	0	100
Toxic 1								
Toxic 2								
Toxic 3								
Toxic 4								
Toxic 5								

Calibrated/Repaired by: Milenko Sisic

Date: 26/11/2019

Next due: 26/05/2020

Calibration & Service Report
Water Quality Meter

Company:	Active Environmental Solutions Hire	**Manufacturer:**	YSI	**Hire Contract:**	868
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	Professional Plus	**Client:**	EMM Consulting
		Cable:	1m Quatro Cable	**Contact:**	Lachlan Lewis
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Serial #:**	18F101584	**Project #:**	J190730
Email:	hire@aesoultions.com.au	**Notes:**		**Notes:**	

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 60 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	New probe fitted
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	
pH slope		✓	55 to 60 mV/pH; ideal 59mV
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	New probe fitted
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	Variance range ± 20mV
Conductivity			
Condition		✓	Good, Clean.
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	New probe fitted
DO sensor in use		✓	Polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

				Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Before**	**After**	**Units**
Temperature	Center 370 Thermometer	Room Temp.	20.9	N/A	21.2	°C
pH	pH 4.00	328104	4.01	4.06	4.01	pH
pH	pH 7.00	329744	7.00	7.09	7.00	pH
Conductivity	2760 µs/cm at 25°C	332208	2760	2727	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	326918 & 326693	236.0	233.5	236.0	mV
Zero Dissolved Oxygen	NaSO3 in distilled water	283762	0.0	0.7	0.0	%
100% Dissolved Oxygen	100% Air Saturation	Fresh Air	100.0	128.9	100.0	%

Calibrated By: Jerry Ji

Calibration Date: 13/12/2019 **Calibration Due:** 13/06/2020

Calibration & Service Report
Water Quality Meter

Company:	Active Environmental Solutions Hire	**Manufacturer:**	Geotech	**Serial #:**	5050
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	51350021	**Cable Length:**	4.5m
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Client Company:**	EMM Consulting	**Client Email:**	
Email:	hire@aesoultions.com.au	**Client Name:**	Lachlan Lewis	**Client Phone:**	

Equipment Check

Geopump Peristaltic Pump

Customer:	EMM Consulting	**Manufacturer:**	Geotech
Contact:	Lachlan Lewis	**Instrument:**	Peristaltic Pump
Order:	J190730	**Serial #:**	5050
		Head Serial #:	
		Cable length:	4.5m

Item	Test	Pass	Comments
Battery	12 Voltage	✓	Voltage above 13 V
	Fuses	✓	
	Capacity	✓	
Pump	Decontaminated	✓	
	Condition	✓	
	Operation	✓	
	0.5 m Silicon Tubing	✓	New Tubing
Charger	Condition	✓	
Hard Case	Condition	✓	
Instrument Test	Operation checked	✓	
Instruction manual	Included	✓	

Comments

2 batteries sent.

This is to certify that the above instrument has been checked and is in good working order.

Checked By: Jerry Ji

Check Date: 17/12/2019 **Due for Check:** 17/06/2020

Calibration & Service Report
Water Quality Meter

Company:	Active Environmental Solutions Hire	**Manufacturer:**	Solinst	**Serial #:**	312417
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	Solinst 122 Interface Meter 30m	**Tape Length:**	30m
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Client Company:**	EMM Consulting	**Client Email:**	
Email:	hire@aesoultions.com.au	**Client Name:**	Lachlan Lewis	**Client Phone:**	

Equipment Check

30 m Interface Probe

Customer:	EMM Consulting	**Manufacturer:**	Solinst	
Contact:	Lachlan Lewis	**Instrument:**	122 Interface Meter	
Order:	J190730	**Serial #:**	312417	
		Cable length:	30 m	
Item	**Test**	**Pass**	**Comments**	
Battery	Voltage (9v battery)	✓	Voltage above 7.9v	
	Fuses, circuit board	✓		
Probe	Decontaminated	✓		
	Condition	✓	Good, clean	
	Operation	✓	Responding	
Connectors	Condition	✓		
Tape Check	Decontaminated	✓		
	Checked for cuts	✓	Good condition	
Speaker	Operation	✓		
Light	Operation	✓		
Instrument Test	Water	✓	Surface level using tap water	
	Oil	✓	Surface level using Petrol and tap water	
This is to certify that the above instrument has been checked and is in good working order.				

Checked By: William Pak

Check Date: 17/12/2019 **Due for Check:** 17/06/2020

Calibration & Service Report
PID

Company:	Active Environmental Solutions Hire	**Manufacturer:**	RAE Systems	**Serial #:**	592-901215
Contact:	William Pak/Milenko Sisic	**Instrument:**	MiniRAE 3000	**Hire #:**	868
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Model:**	PGM 7320	**Client:**	Lachlan Lewis
		Configuration:	PID (10.6eV)	**Company:**	EMM Consulting
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Wireless:**	-	**Project #:**	J190730
Email:	hire@aesolutions.com.au	**Network ID:**	-	**Notes:**	

Item	Test	Pass/Fail	Comments
Battery	Li Ion	✓	
Charger	Charger, Power supply	✓	
	Cradle	✓	
Pump	Flow	✓	>500 mL/min
Filter	Filter, fitting, etc	✓	
Alarms	Audible, visual, vibration	✓	
Display	Operation	✓	
PCB	Operation	✓	
Connectors	Condition	✓	
Firmware	Version	✓	2.16
Datalogger	Operation	✓	
Monitor Housing	Condition	✓	
Case	Condition/Type	✓	
Sensors			
PID	Lamp	✓	
PID	Sensor	✓	
THP	Sensor	✓	

Engineer's Report

Setup, service and calibration for hire

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen								
LEL								
PID	10.6eV	-	Isobutylene	100ppm	A0442963	1.00	0	100ppm
Toxic 1								
Toxic 2								
Toxic 3								
Toxic 4								
Toxic 5								

Calibrated/Repaired by: William Pak

Date: 17.12.2019

Next due: 17.06.2020

Appendix E

Bore logs

ENVIRONMENTAL BOREHOLE BH01

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334226.9 N6248047.6
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0	0.6	BH01_0.1	Y		SP	FILL: SAND; medium to course grain, light brown, minor organics, trace brick fragments, very loose, very dry, no odour or staining.
	0.5	0.2	BH01_0.5	Y			Colour change to light grey
	1	0.3	BH01_1.0			Pt	Sandy PEAT; medium to high plasticity, dark grey to black, with organics (20%), medium dense, dry to moist, no odour or staining.
Direct push tube	1.5						
	2	2.5	BH01_2.0				
	2.5	0.5	BH01_2.5	Y			
							End of investigation at 2.5 m (target depth).
	3						

produced by ESlog.ESdat.net on 07 Feb 2020

ENVIRONMENTAL BOREHOLE BH02

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334224.9 N6248059.4
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0	0	BH02_0.1	Y		SM	FILL: Silty SAND; Fine to course grain, brown, trace roots and mortar fragments, medium dense, dry, no odour or staining.
	0.5	0.2	BH02_0.5	Y			Sandstone fragments from 0.5 to 1.4m.
	1	0.2					
	1.5					SC	Clayey SAND; fine grain, dark brown, minor roots, dry, dense, no odour or staining.
Direct push tube		1.0	BH02_1.5			Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
	2						
	2.5	6.5	BH02_2.5, QC100	Y			End of investigation at 2.5 m (target depth).
	3						

produced by ESlog.ESdat.net on 07 Feb 2020

ENVIRONMENTAL BOREHOLE BH03

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334225.5 N6248029.3
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	0.0	BH03_0.1			SM	FILL: Silty SAND; grey to brown, fine to medium grain, minor organics, trace brick fragments, very loose, dry, no odour or staining.
		0.1	BH03_0.5	Y			
	1						
	1.5	1.1	BH03_1.5	Y		Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
Push tube	2						
	2.5	1.0	BH03_2.5	Y			
							End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH04

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334216.0 N6248017.4
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	0.2	BH04_0.1	Y		SP	FILL: SAND; medium grain, brown, minor brick fragments, loose, dry, no odour or staining.
		0.1	BH04_0.5	Y			
	1						
	1.5						Becoming clayey Colour change to dark grey
Push tube		0.3	BH04_1.5	Y		Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
	2						
	2.5	0.1	BH04_2.5				
							End of investigation at 2.5 m (target depth).
	3						

produced by ESlog.ESdat.net on 07 Feb 2020

ENVIRONMENTAL BOREHOLE BH05

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334223.0 N6248000.7
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0	0.4	BH05_0.1	Y		SP	FILL: SAND; medium grain, brown to grey, trace ceramic and brick fragments, loose, dry, no odour or staining.
	0.5	0.2	BH05_0.5				
	1	0.1	BH05_0.9	Y			Becoming dense to medium dense Colour change to dark grey to brown Trace shale fragments
		0.2	BH05_1.2	Y		Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
Push tube	1.5						
	2						
	2.5	0.2	BH05_2.5				
							End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH06

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334214.5 N6247980.2
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0	0.1	BH06_0.1	Y		SP	FILL: SAND; fine to medium grain, grey to brown, minor ceramic and stone fragments, very loose, dry, no odour or staining. Minor woodchips from 0-0.5m.
	0.5	0.0	BH06_0.5	Y			
	1						
		0.3	BH06_1.2			Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
Push tube	1.5						
	2	4.0	BH06_2.2	Y			
	2.5						End of investigation at 2.5 m (target depth).
	3						

produced by ESlog.ESdat.net on 07 Feb 2020

ENVIRONMENTAL BOREHOLE BH07

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334264.6 N6247970.7
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.0	0.0	BH07_0.1	Y		SP	FILL: SAND; medium grain, brown, minor gravel and brick fragments, loose, dry, no odour or staining.
	0.5	0.2	BH07_0.5				
Push tube							Becoming medium dense
	1	0.1	BH07_0.9	Y		CL	Sandy CLAY; low plasticity, dark grey and light grey, medium grain sand, stiff, dry, no odour or staining.
		0.1	BH07_1.1	Y		SP	SAND; medium grain, light brown to grey
	1.5					Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
	2	0.8	BH07_2.1				
	2.5						End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH08

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334274.2 N6248022.8
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	0.2	BH08_0.1			SP	FILL: SAND; medium grain, brown, minor gravel and brick fragments, loose, dry, no odour or staining.
		1.1	BH08_0.5	Y			
	1	0.8	BH08_0.9			CL	Sandy CLAY; low plasticity, dark grey and light grey, medium grain sand, stiff, dry, no dour or staining.
		0.5	BH08_1.1	Y		SP	SAND; medium grain, light brown to grey
Push tube	1.5					Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
	2	2.1	BH08_2.0, QC200	Y			Moist
	2.5						End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH09

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 27/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334279.1 N6248044.1
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	1.2	BH09_0.1, QC101	Y		SP	FILL: SAND; fine to medium grain, grey to brown, minor gravel, brick and ceramic fragments, very loose, dry, no odour or staining.
		0.0	BH09_0.5	Y			Loose to medium dense
	1	0.7	BH09_1.0	Y		SP	SAND; fine to medium grain, dark grey, very dense, no odour or staining.
							Light grey, loose
Push tube	1.5	1.0	BH09_1.5			Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.
	2	1.1	BH09_2.5			SP	SAND: fine to medium grain, brown, loose, moist, no staining, slight sulfur odour.
	2.5						End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH10

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334269.4 N6247994.4
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	0.4	BH10_0.1	Y		SP	FILL: SAND; fine to medium grain, dark brown, trace ceramic and brick fragments, trace organics, loose, dry, no odour or staining.
		0.4	BH10_0.5				Light brown
	1	0.9	BH10_1.0	Y		SC	FILL: Clayey SAND; fine to medium grain, dark grey to dark brown, medium to high plasticity clay, trace brick fragments, soft, dry, no odour or staining.
Push tube	1.5	1.0	BH10_1.5			Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist, no odour or staining.
	2	0.6	BH10_2.5	Y			
	2.5						End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH12

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334257.7 N6248034.9
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	0.2	BH12_0.1	Y		SP	FILL: SAND; fine to medium grain, dark brown, trace ceramic, brick and gravel fragments, trace organics, loose, dry, no odour or staining.
		0.6	BH12_0.5				
	1						
	1.5						
Push tube		0.9	BH12_1.5	Y		Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist, no odour or staining.
	2						
		0.9	BH12_2.5	Y		SP	SAND; medium grain, light brown, loose, moist, no odour or staining.
	2.5						End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH13

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334265.3 N6247948.8
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger							Asphalt
	0.5	0.5	BH13_0.3	Y		SP	FILL: Gravelly SAND; medium grain, grey brown, no odour or staining.
			BH13_0.5	Y			Concrete fragments
	1						
	1.5	1.8	BH13_1.5	Y		Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist, no odour or staining.
Push tube	2						
	2.5	4.1	BH13_2.5	Y			
	3						End of investigation at 3.0 m (target depth).

ENVIRONMENTAL BOREHOLE BH14

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334243.2 N6247951.8
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger							Asphalt
		0.1	BH14_0.3	Y		SP	FILL: Gravelly SAND; medium grain, dark grey, no odour or staining.
	0.5						
	1	0.3	BH14_1.0	Y			
	1.5						
Push tube						Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist to wet, no odour or staining.
	2	0.8	BH14_2.0				
	2.5						
		0.6	BH14_3.0	Y			
	3						End of investigation at 3.0 m (target depth).

ENVIRONMENTAL BOREHOLE BH15

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334241.3 N6247918.2
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger							Asphalt
						SP	FILL: Gravelly SAND; medium to course grain, grey-brown, no odour or staining.
		0.2	BH15_0.2	Y			
	0.5	0.7	BH15_0.5				
	1						Minor clay, medium plasticity, red to light grey.
							Moist to wet
Push tube	1.5	10.4	BH15_1.5, QC201	Y		Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist to wet, no odour or staining.
	2	9.6	BH15_2.5	Y			
	2.5						End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH16

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334241.8 N6247983.6
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.5	0.3	BH16_0.1	Y		SP	FILL: SAND; medium grain, grey-brown, very loose, dry, no odour or staining.
		0.3	BH16_0.5				
	1	1.1	BH16_0.9	Y		SP	FILL: Sandy GRAVEL; sub angular, grey, brick fragments, loose, dry, no odour or staining.
	1.5	0.5	BH16_1.2			SP	SAND; fine to course grain, brown, minor roots, very dense, dry, no odour or staining.
Push tube	2	1.2	BH16_1.7	Y		Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist to wet, no odour or staining.
							Moist
							Wet
	2.5	0.9	BH16_2.5				
	3						End of investigation at 2.5 m (target depth).

ENVIRONMENTAL BOREHOLE BH17

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS Unable to locate BH17 for survey.

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.0	0.0	BH17_0.1	Y		SP	FILL: SAND; medium grain, brown-grey, trace brick and glass fragments, medium dense, dry, no odour or staining.
	0.5	0.1	BH17_0.5	Y			
	1	0.1					Becoming very dense, minor roots, trace brick fragments
Push tube	1.5	0.9	BH17_1.5			Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist to wet, no odour or staining.
							Moist
	2						Wet
	2.5	1.0	BH17_2.5	Y			
							End of investigation at 2.5 m (target depth).
	3						

ENVIRONMENTAL BOREHOLE BH18

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334259.1 N6248019.4
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0	0.0	BH18_0.1	Y		SP	FILL: SAND; medium grain, brown-grey, trace brick and glass fragments, loose, dry, no odour or staining.
	0.5	0.0	BH18_0.5	Y			
	1						Medium dense with brick fragments
Push tube	1.5					Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist to wet, no odour or staining.
	2	0.0	BH18_1.8				Moist
	2.5	0.0	BH18_2.8	Y		SP	SAND: medium grain, dark brown, loose, medium dense, moist, no odour or staining.
	3						End of investigation at 2.8 m (target depth).

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ENVIRONMENTAL BOREHOLE BH19

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/2019
DRILLING CONTRACTOR Matrix Drilling
DRILLING METHOD Push tube

COORDINATES E334204.9 N6247957.7
LOGGED BY L Lewis
CHECKED BY A Tennant

COMMENTS

Method	Depth (m)	PID (ppm)	Samples	Analysed?	Graphic Log	USCS	Material Description
Hand auger	0.0	0.0	BH19_0.1			SP	FILL: Silty SAND; dark brown, trace roots, trace brick fragments, medium dense, loose, dry, no odour or staining.
	0.5	0.0	BH19_0.5, QC102	Y			Large brick fragments (70mm)
	1		BH19_1.0				Glass fragments Dense
Push tube	1.5	2.5	BH19_1.5	Y		Pt	PEAT; medium plasticity, black, organics (50%), minor sand (grey, medium grain), firm, moist to wet, no odour or staining.
	2	0.5	BH19_2.5	Y			Moist
	2.5						End of investigation at 2.5 m (target depth).
	3						

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MONITORING WELL MW11

PROJECT NUMBER J190730	**DRILLING DATE** 28/11/19-29/11/19	**COORDINATES** E334259.6 N6248055.4
PROJECT NAME DSI	**DRILLING METHOD** Hollow-stem auger	**LOGGED BY** L Lewis
CLIENT Land and Housing Corporation	**DRILLING CONTRACTOR** Matrix Drilling	**CHECKED BY** A Tennant
ADDRESS 600-660 Elizabeth Street, Redfern	**DIAMETER** 50 mm	**SCREEN** uPVC Factory Slotted, 1.5 to 4.5 m bgs
	CASING uPVC	**SURFACE LEVEL** 30.38 mAHD

COMMENTS Top of Pipe - 30.30 mAHD, flush well head

PID (ppm)	Samples	Analysed	Depth (m)	Graphic Log	USCS	Material Description	Well Diagram
0.2	MW11_0.1		0.2		SP	FILL: SAND; fine to medium grain, dark brown, trace ceramic and brick fragments, trace organics, loose, dry, no odour or staining.	concrete cement grout
0.4	MW11_0.5	Y	0.4				
			0.6				bentonite
			0.8				
			1				
			1.2			FILL: Clayey SAND; fine to medium grain, dark brown and grey, trace ceramic fragments, medium dense, dry, no odour or staining.	
0.4	MW11_1.2		1.4		SC	▽ 2 Stabilised water level	
			1.6				
			1.8				
			2				
0.5	MW11_2.1		2.2		CL	Sandy CLAY; medium plasticity, black, fine to medium grain sand, soft, dry, no odour or staining.	
			2.4			▽ 1 Waterstrike	
			2.6				filter pack (1-2 mm)
			2.8				
			3				
			3.2				
			3.4				
0.7	MW11_3.5	Y	3.6		SC	Clayey SAND; fine to medium grain, black, no odour or staining.	
			3.8				
			4				
			4.2				
			4.4				
			4.6				
			4.8				bore collapse
1.1	MW11_5.0	Y	5				
			5.2			End of investigation at 5.0 m (target depth).	

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MONITORING WELL MW20

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 28/11/19
DRILLING METHOD Hollow stem auger
DRILLING CONTRACTOR Matrix drilling
DIAMETER 50 mm
CASING uPVC

COORDINATES E334205.2 N6247944.6
LOGGED BY L Lewis
CHECKED BY A Tennant
SCREEN uPVC Factory Slotted, 1.5 to 4.5 m bgs
SURFACE LEVEL 30.64 mAHD

COMMENTS Location at PCYC entrance. Top of pipe - 30.555 mAHD, flush well head.

PID (ppm)	Samples	Analysed	Depth (m)	Graphic Log	USCS	Material Description	Well Diagram
0.5	MW20_0.1		0.2, 0.4		SP	FILL: SAND; fine to medium grain, grey to brown, with ceramic pipe fragments and glass fragments, very loose, dry, no odour or staining.	concrete cement grout
0.5	MW20_0.5	Y	0.6, 0.8				bentonite
0.6	MW20_1.0		1, 1.2, 1.4			Dense	
1.0	MW20_1.8	Y	1.6, 1.8		Pt	PEAT; medium plasticity, black, organics (50%), firm, moist, no odour or staining.	
			2			▽2 Stabilised water level	
			2.2, 2.4			Moist	
			2.6			▽1 Waterstrike, wet	filter pack (1-2 mm)
1.6	MW20_2.8		2.8, 3, 3.2, 3.4, 3.6, 3.8			Saturated, sticky	
1.5	MW20_4.0	Y	4, 4.2, 4.4				
			4.6, 4.8			End of investigation at 4.5 m (target depth).	

MONITORING WELL MW21

PROJECT NUMBER J190730
PROJECT NAME DSI
CLIENT Land and Housing Corporation
ADDRESS 600-660 Elizabeth Street, Redfern

DRILLING DATE 29/11/19
DRILLING METHOD Hollow stem auger
DRILLING CONTRACTOR Matrix drilling
DIAMETER 50 mm
CASING uPVC

COORDINATES E334265.8 N6247929.7
LOGGED BY L Lewis
CHECKED BY A Tennant
SCREEN uPVC Factory Slotted, 1.5 to 4.5 m bgs
SURFACE LEVEL 30.215 mAHD

COMMENTS Location at basketball court. Top of pipe - 30.135 m AHD, flush well head.

PID (ppm)	Samples	Analysed	Depth (m)	Graphic Log	USCS	Material Description	Well Diagram
			0.2			Asphalt	concrete cement grout
12.7	MW21_0.3, QC202	Y	0.4		SP	FILL: Gravelly SAND; medium grain, brown, brick and mortar inclusions (30%), angular gravel, dry, loose to medium dense, no odour or staining.	bentonite
			1			▽1 Stabilised water level	
13.7	MW21_1.3. QC103, QC203	Y	1.4		Pt	PEAT; medium plasticity, black, organics (50%), firm, dry to moist, no odour or staining.	
			2.4			▽2 Waterstrike	
1.8	MW21_2.5		2.6				filter pack (1-2 mm)
1.9	MW21_4.4	Y	4.4			End of investigation at 4.4 m (target depth).	
			4.6				
			4.8				

Appendix F

Analytical results tables

					Asbestos						Physical				Inorganics			Metals									MAH											
					Asbestos (Fines and Fibrous <7mm)	Asbestos Identified?	Asbestos Containing Material	Asbestos Containing Material (as 15% Asbestos in A)	Fibrous Asbestos >7mm	Asbestos from FA & AF in Soil	weight of sample	Moisture Content	Net Acid Soluble Sulfur (in acid units)	Net Acid Soluble Sulfur (in sulfur units)	pH (after HCL)	pH (Final)	pH (Initial)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Lead (TCLP)	Mercury	Nickel	Zinc	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Naphthalene	2-methylnaphthalene
					g	Y/N	g	% (w/w)	g	%w/w	g	%	mole H+/t	%S	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.0004	-	0.1	0.01	0.0004	0.001	0.01	1	10	0.02	0.1	0.1	0.1	5	1	2	5	5	0.1	0.1	2	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NSW 1998 ASS Action Criteria																																					
NEPM 2013 Table 1A(1) HILs Res B Soil																		500	150		30,000	1,200		120	1,200	60,000											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																					
0-1m																																				3	
1-2m																																					
2-4m																																					
>=4m																																					
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m																																				2,200	
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																		100				1,100														170	
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																					
0-2m																																					
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2m																																					
NEPM 2013 Table 7 HSLs for Asbestos - Residential B								0.04		0.001																											
Location Code	**Field ID**	**Date**	**Depth**	**Material**																																	
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	410	9.6	-	-	-	-	-	<5	<1	5	11	104	-	0.1	2	121	-	-	-	-	-	-	-	-	-	<0.5	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-		-	-	-	-	-	8.8	-	-	1.4	5.3	8.9	<5	<1	6	26	128	0.2	0.8	5	147	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	No	-	-	-	-	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	82.6	-	-	-	-	-	<5	<1	7	5	<5	-	<0.1	5	7	-	-	-	-	-	-	-	-	-	<1	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	326	11.9	-	-	1.5	5.2	8.8	<5	<1	5	15	198	0.3	0.2	3	301	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	381	9.1	-	-	-	-	-	<5	<1	5	7	75	-	0.2	<2	118	-	-	-	-	-	-	-	-	-	<0.5	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	84.6	-	-	-	-	-	<5	<1	6	6	8	-	0.2	6	14	-	-	-	-	-	-	-	-	-	<1	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	85.0	-	-	-	-	-	<5	<1	4	<5	<5	-	<0.1	<2	13	-	-	-	-	-	-	-	-	-	<1	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	347	23.4	-	-	-	-	-	<5	<1	<2	<5	27	-	<0.1	<2	94	-	-	-	-	-	-	-	-	-	<0.5	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	40.6	-	-	-	-	-	<5	<1	10	14	68	-	0.2	9	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	83.8	-	-	-	-	-	<5	<1	10	8	<5	-	0.1	14	14	-	-	-	-	-	-	-	-	-	<1	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	464	5.5	-	-	1.4	5.0	7.8	<5	<1	4	20	140	0.3	0.2	<2	146	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	453	6.5	-	-	1.8	5.7	8.9	<5	<1	4	15	245	2.0	0.2	<2	157	-	-	-	-	-	-	-	-	-	<0.5	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	14.3	<10	<0.020	-	-	-	<5	<1	11	10	68	-	0.2	10	30	-	-	-	-	-	-	-	-	-	<0.5	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	514	5.1	-	-	2.0	6.1	8.8	<5	<1	9	33	610	0.6	0.5	7	459	-	-	-	-	-	-	-	-	-	<0.5	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	225	10.9	-	-	1.4	5.0	6.9	6	<1	12	12	292	<0.1	1.4	6	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-		-	-	-	-	-	84.1	-	-	-	-	-	<5	<1	16	9	<5	-	<0.1	3	23	-	-	-	-	-	-	-	-	-	<1	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	164	10.5	-	-	1.6	5.1	7.3	<5	<1	6	16	120	<0.1	0.2	2	191	-	-	-	-	-	-	-	-	-	<0.5	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	502	4.7	-	-	1.6	5.6	8.9	<5	<1	5	11	154	0.2	0.3	2	173	-	-	-	-	-	-	-	-	-	<0.5	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-		-	-	-	-	-	84.9	<10	<0.020	-	-	-	<5	<1	32	16	10	-	0.3	19	24	-	-	-	-	-	-	-	-	-	<1	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	414	5.6	-	-	1.6	6.0	8.9	<5	<1	6	16	131	<0.1	0.2	2	241	-	-	-	-	-	-	-	-	-	<0.5	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	-		-	-	-	-	-	23.7	-	-	-	-	-	<5	<1	<2	<5	6	-	<0.1	<2	6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-		-	-	-	-	-	23.4	-	-	-	-	-	<5	<1	<2	<5	17	-	<0.1	<2	16	-	-	-	-	-	-	-	-	-	<0.5	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	469	3.8	-	-	1.5	5.3	8.8	<5	<1	8	32	300	0.3	0.4	5	349	-	-	-	-	-	-	-	-	-	<0.5	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	346	15.6	-	-	<5	<1	5	<5	<5	<0.1	<2	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-		-	-	-	-	-	83.2	-	-	-	-	-	<5	<1	6	6	<5	-	<0.1	10	8	-	-	-	-	-	-	-	-	-	<1	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	268	27.9	-	-	1.6	5.4	8.8	<5	<1	6	17	139	0.1	0.2	3	229	-	-	-	-	-	-	-	-	-	<0.5	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	376	7.8	-	-	1.4	5.3	8.8	<5	<1	5	11	102	-	0.2	2	141	-	-	-	-	-	-	-	-	-	<0.5	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-		-	-	-	-	-	7.3	-	-	-	-	-	<5	<1	<2	<5	<5	-	<0.1	<2	231	-	-	-	-	-	-	-	-	-	<0.5	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-		-	-	-	-	-	6.9	-	-	-	-	-	<5	<1	6	15	145	-	0.2	2	200	-	-	-	-	-	-	-	-	-	<1	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	365	16.2	-	-	1.7	5.8	8.6	<5	<1	9	16	145	<0.1	0.2	4	254	-	-	-	-	-	-	-	-	-	<0.5	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	323	19.5	-	-	-	-	-	<5	<1	18	25	119	-	0.6	20	88	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-		-	-	-	-	-	85.3	<10	<0.020	-	-	-	<5	<1	8	11	<5	-	<0.1	15	14	-	-	-	-	-	-	-	-	-	<1	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	420	2.7	-	-	1.4	5.0	7.2	<5	<1	3	9	75	-	0.2	<2	119	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-		-	-	-	-	-	53.0	<10	<0.020	-	-	-	8	<1	6	6	948	-	0.2	5	572	-	-	-	-	-	-	-	-	-	<0.8	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	16.1	-	-	-	-	-	<5	<1	<2	<5	<5	-	<0.1	<2	<5	-	-	-	-	-	-	-	-	-	<0.5	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-		-	-	-	-	34.5	2.8	-	-	1.5	5.7	9.2	<5	<1	6	94	37	-	<0.1	9	59	-	-	-	-	-	-	-	-	-	<0.5	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	520	1.6	-	-	1.7	5.8	10.2	<5	<1	13	198	60	-	<0.1	24	99	-	-	-	-	-	-	-	-	-	<0.5	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	83.7	<10	<0.020	-	-	-	<5	<1	6	20	8	-	<0.1	4	10	-	-	-	-	-	-	-	-	-	<1	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	82.3	-	-	-	-	-	<5	<1	16	15	14	-	<0.1	14	185	-	-	-	-	-	-	-	-	-	<1	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	462	22.4	-	-	1.5	5.4	9.8	<5	<1	7	139	228	0.4	0.3	18	210	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	No	-	-	-	-	339	10.9	-	-	1.8	5.4	8.5	9	3	17	142	543	0.1	0.6	16	1,570	-	-	-	-	-	-	-	-	-	<0.5	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-		-	-	-	-	-	69.5	-	-	-	-	-	<5	<1	22	21	11	-	<0.1	10	20	-	-	-	-	-	-	-	-	-	<0.8	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	No	-	-	-	-	410	20.9	-	-	1.5	5.4	8.5	<5	<1	8	48	205	-	0.5	13	172	-	-	-	-	-	-	-	-	-	<0.5	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	84.0	-	-	-	-	-	<5	<1	11	8	21	-	0.1	5	110	-	-	-	-	-	-	-	-	-	<1	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	75.4	<10	<0.020	-	-	-	<5	<1	21	14	8	-	<0.1	14	5	-	-	-	-	-	-	-	-	-	<1.0	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	265	1.7	-	-	-	-	-	<5	<1	3	16	93	-	0.1	<2	70	-	-	-	-	-	-	-	-	-	<0.5	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	261	6.3	-	-	-	-	-	<5	<1	10	30	534	-	0.6	7	252	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-		-	-	-	-	-	63.8	<10	<0.020	-	-	-	<5	<1	3	<5	<5	-	<0.1	<2	135	-	-	-	-	-	-	-	-	-	<0.8	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	276	2.2	-	-	1.4	5.2	8.5	<5	<1	4	16	115	0.2	0.2	2	152	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	318	2.4	-	-	-	-	-	<5	<1	<2	12	39	-	0.1	<2	96	-	-	-	-	-	-	-	-	-	<0.5	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	61.5	-	-	-	-	-	<5	<1	22	14	10	-	<0.1	9	9	-	-	-	-	-	-	-	-	-	<0.8	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	227	11.4	-	-	1.4	5.0	7.8	<5	<1	3	10	109	0.2	0.1	<2	137	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	260	9.1	-	-	1.4	5.0	7.6	<5	<1	3	25	87	-	0.5	<2	53	-	-	-	-	-	-	-	-	-	<0.5	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-		-	-	-	-	-	22.9	-	-	-	-	-	<5	<1	<2	<5	<5	-	<0.1	<2	<5	-	-	-	-	-	-	-	-	-	<0.5	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	**0.0244**	**Yes**	<0.1	<0.01	<0.0004	**0.008**	315	13.4	-	-	1.6	5.2	8.4	<5	6	12	235	446	0.5	1.2	20	576	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	73.8	-	-	-	-	-	<5	<1	5	<5	<5	-	<0.1	3	7	-	-	-	-	-	-	-	-	-	<0.8	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	71.9	<10	<0.020	-	-	-	<5	<1	21	24	12	-	<0.1	13	12	-	-	-	-	-	-	-	-	-	<0.8	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-		-	-	-	-	-	7.1	-	-	-	-	-	<5	3	9	121	438	-	0.3	12	310	-	-	-	-	-	-	-	-	-	<1	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	350	18.4	-	-	1.4	5.0	7.6	<5	<1	7	69	405	0.2	0.5	5	475	-	-	-	-	-	-	-	-	-	<1	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	-		-	-	-	-	-	37.1	-	-	1.4	4.9	5.4	<5	<1	5	11	53	-	<0.1	2	69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-		-	-	-	-	-	25.7	-	-	1.4	4.9	5.7	<5	<1	3	8	41	-	<0.1	<2	48	-	-	-	-	-	-	-	-	-	<0.5	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	**0.265**	**Yes**	<0.1	<0.01	<0.0004	**0.082**	323	8.2	-	-	-	-	-	<5	<1	17	128	1,170	-	0.8	9	812	-	-	-	-	-	-	-	-	-	<0.5	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	No	-	-	-	-	142	71.7	-	-	-	-	-	<5	<1	5	9	26	-	<0.1	5	35	-	-	-	-	-	-	-	-	-	<0.8	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-		-	-	-	-	-	50.6	-	-	1.5	4.9	6.4	<5	<1	15	27	118	<0.1	0.2	10	85	-	-	-	-	-	-	-	-	-	<0.8	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	271	20.8	-	-	1.4	5.1	8.3	<5	<1	13	111	38	-	0.1	10	37	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	No	-	-	-	-	33.9	80.1	-	-	-	-	-	<5	<1	4	<5	<5	-	<0.1	3	60	-	-	-	-	-	-	-	-	-	<1	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-		-	-	-	-	-	81.8	-	-	-	-	-	<5	<1	6	6	10	-	0.2	4	43	-	-	-	-	-	-	-	-	-	<1	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-		-	-	-	-	-	76.3	<10	<0.020	-	-	-	6	<1	16	16	6	-	<0.1	40	26	-	-	-	-	-	-	-	-	-	<1.0	-

					PAH																						TPH								
					Acenaphthene	Benzo(a) pyrene	Benzo(a) pyrene - TCLP	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(g,h,i)perylene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Sum of PAHs	Chrysene	Fluoranthene	Dibenz(a,h)anthracene	2-chloronaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Fluorene	Indeno(1,2,3-c,d)pyrene	Pyrene	Phenanthrene	C6-C9	C10-C14	TPH C10-C14 Fraction after Silica Cleanup	C15-C28	TPH C15-C28 Fraction after Silica Cleanup	C29-C36	TPH C29-C36 Fraction after Silica Cleanup	+C10-C36 (Sum of total)	TRH C10-C36 (Total) (after silica gel clean-up)	C6-C10
					mg/kg	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	10	50	50	100	100	100	100	50	50	10
NSW 1998 ASS Action Criteria																																				
NEPM 2013 Table 1A(1) HILs Res B Soil								4	4				4				400																			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																				
0-1m																																				
1-2m																																				
2-4m																																				
>=4m																																				
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m																																				5,600
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																																				
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																				
0-2m						0.7																														
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2																																				700
NEPM 2013 Table 7 HSLs for Asbestos - Residential B																																				
Location Code	**Field ID**	**Date**	**Depth**	**Material**																																
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	1.5	<0.5	2.2	2.5	0.5	0.7	1.7	2.0	0.8	1.6	0.6	20.2	1.4	4.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	4.1	2.7	<10	<50	-	100	-	<100	-	100	-	<10
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	7,540	3,710	4,140	1,800	11,700	5510	<10
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	5,200	2,780	3,320	1,580	8,520	4360	<10
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<110	-	3,050	-	1,500	-	4,550	-	<10
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<0.5	0.6	-	1.0	1.3	<0.5	<0.5	0.8	0.7	<0.5	<0.5	<0.5	7.2	0.6	1.8	<0.5	-	-	-	<0.5	<0.5	2.0	1.4	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	-	1,130	-	1,310	-	2,440	-	<10
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	190	-	190	-	<10
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	2.4	<0.5	3.3	3.5	0.8	1.0	2.5	3.0	0.6	2.1	0.8	29.8	2.2	6.3	<0.5	-	-	-	<0.5	0.6	6.0	4.5	<10	<50	-	120	-	<100	-	120	-	<10
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	650	<220	730	<220	1,380	<220	<10
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	120	-	180	-	300	-	<10
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	0.6	-	1.0	1.3	<0.5	<0.5	0.6	0.7	<0.5	<0.5	<0.5	5.8	0.5	1.6	<0.5	-	-	-	<0.5	<0.5	1.5	1.0	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	1,980	660	2,140	850	4,120	1510	<10
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	0.5	-	0.8	1.2	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	3.3	<0.5	1.1	<0.5	-	-	-	<0.5	<0.5	1.2	0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<0.5	0.6	-	1.0	1.3	<0.5	<0.5	0.5	0.6	<0.5	<0.5	<0.5	3.8	0.5	1.0	<0.5	-	-	-	<0.5	<0.5	1.2	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	2,720	520	2,460	440	5,180	960	<10
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	0.8	<0.5	1.2	1.5	<0.5	<0.5	0.8	0.9	<0.5	0.5	<0.5	7.2	0.7	1.7	<0.5	-	-	-	<0.5	<0.5	1.9	0.8	<10	<50	-	<100	-	110	-	110	-	<10
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	0.8	<0.5	1.2	1.6	<0.5	<0.5	0.8	0.9	<0.5	0.6	<0.5	8.1	0.6	2.0	<0.5	-	-	-	<0.5	<0.5	1.9	1.4	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	120	-	120	-	<10
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	-	<100	-	<100	-	<50	-	<10
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	0.9	<0.5	1.4	1.7	<0.5	<0.5	0.9	1.1	<0.5	0.7	<0.5	9.5	0.8	2.3	<0.5	-	-	-	<0.5	<0.5	2.4	1.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	-	750	-	1,030	-	1,780	-	<10
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	0.9	<0.5	1.4	1.7	<0.5	<0.5	0.9	1.1	<0.5	1.0	<0.5	8.7	0.8	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	1.1	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	270	<100	520	<100	790	<100	<10
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	<0.5	1.2	<0.5	1.8	2.1	<0.5	<0.5	1.1	1.6	1.0	1.4	0.6	12.3	0.9	2.2	<0.5	-	-	-	<0.5	0.6	2.4	0.9	<10	<50	<50	400	120	1,050	310	1,450	430	<10
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.5	5.9	<0.5	8.4	8.4	0.7	2.4	6.1	8.4	4.3	7.0	2.3	70.0	5.5	13.1	0.6	-	-	-	<0.5	2.8	12.2	7.1	<10	<50	<50	600	210	1,220	420	1,820	630	<10
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	2,890	1,360	2,340	840	5,230	2200	<10
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	2,210	1,050	4,160	2,760	6,370	3810	<10
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	0.6	1.7	<0.5	2.5	2.7	<0.5	1.3	1.7	2.2	0.9	1.8	0.7	29.3	1.6	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	6.0	6.1	<10	<50	<50	450	150	740	310	1,190	460	<10
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	1.9	-	2.7	3.0	<0.5	0.7	1.8	2.5	1.1	2.2	0.8	22.0	1.7	4.2	<0.5	-	-	-	<0.5	0.8	4.2	2.6	<10	<50	<50	190	<100	300	130	490	130	<10
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	2.6	<0.8	1.7	<0.8	-	-	-	<0.8	<0.8	0.9	<0.8	<10	<50	-	330	-	490	-	820	-	<10
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	<0.5	4.1	<0.5	5.6	5.8	0.9	1.1	3.8	5.3	2.3	4.5	1.6	42.1	3.6	7.8	<0.5	-	-	-	<0.5	1.8	8.0	2.6	<10	<50	<50	280	<100	380	160	660	160	<10
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	3,600	920	3,220	750	6,820	1670	<10
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<1.0	<1.0	-	1.2	2.4	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	1.2	<1.0	<10	<60	-	430	-	1,390	-	1,820	-	<10
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	3.1	<0.5	1.0	<0.5	-	-	-	<0.5	<0.5	1.0	0.6	<10	<50	-	<100	-	140	-	140	-	<10
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	990	180	1,660	590	2,650	770	<10
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	2.6	<0.5	3.6	3.9	0.5	0.7	2.6	3.4	1.0	3.1	1.0	29.9	2.4	5.7	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	5.7	3.7	<10	<50	-	110	-	<100	-	110	-	<10
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	0.9	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	0.9	<0.8	<10	<50	-	260	-	750	-	1,010	-	<10
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	<0.5	1.6	<0.5	2.4	2.6	<0.5	0.6	1.7	2.1	0.7	1.8	0.7	19.1	1.6	3.8	<0.5	-	-	-	<0.5	0.6	3.8	2.2	<10	<50	-	<100	-	<100	-	<50	-	<10
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100	-	<50	-	<10
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	3.7	<0.5	5.0	5.2	<0.5	1.0	3.5	4.7	1.2	3.8	1.4	37.1	3.2	7.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	7.3	3.3	<10	<50	<50	280	<100	250	<100	530	<100	<10
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	530	150	950	130	1,480	280	<10
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	1.3	<0.8	1.3	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	-	100	-	160	-	260	-	<10
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	-	180	-	180	-	360	-	<10
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<0.5	0.7	<0.5	1.1	1.4	<0.5	<0.5	0.6	0.8	<0.5	0.7	<0.5	6.8	0.6	1.6	<0.5	-	-	-	<0.5	<0.5	1.6	1.0	<10	<50	<50	690	210	450	120	1,140	330	<10
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.5	3.8	<0.5	5.2	5.4	0.8	1.6	3.8	4.9	2.0	4.0	1.4	48.8	3.6	8.9	<0.5	<0.5	<0.5	<0.5	0.6	1.7	9.3	7.3	<10	<50	-	440	-	330	-	770	-	<10
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	0.5	0.8	<0.5	2.1	0.8	<0.5	<0.5	-	-	-	<0.5	<0.5	1.9	0.5	<10	<50	-	690	-	550	-	1,240	-	<10
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	0.7	<0.5	-	-	-	<0.5	<0.5	0.7	<0.5	<10	<50	-	140	-	100	-	240	-	103
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	390	<100	630	<100	1,020	<100	<10
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	-	290	-	480	-	770	-	<10
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.5	2.4	<0.5	3.3	3.5	<0.5	1.2	1.9	3.0	1.5	2.1	0.8	24.4	1.8	4.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	4.3	2.9	<10	<50	<50	580	220	1,140	410	1,720	630	<10
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<60	3,550	1,020	3,180	760	6,730	1780	<10
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<110	-	5,450	-	4,350	-	9,800	-	<10
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	<1.0	<1.0	-	1.2	2.4	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<10	<60	-	350	-	770	-	1,120	-	<10

					TRH										BTEX							Phenols											Amino Aliphatics			
					C6-C10 (F1 minus BTEX)	C10-C16	TRH >C10-C16 (after silica gel clean-up)	C10-C16 (F2 minus Naphthalene)	C16-C34	TRH >C16-C34 (after silica gel clean-up)	C34-C40	TRH >C34-C40 (after silica gel clean-up)	C10-C40 (Sum of total)	>C10 - C40 Fraction (sum) (silica gel clean-up)	Benzene	Ethylbenzene	Toluene	Total BTEX	Xylene (m & p)	Xylene (o)	Xylene Total	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Nitrophenol	2-Methylphenol	3&4-Methylphenol (m&p-cresol)	Pentachlorophenol	4-chloro-3-methylphenol	Phenol	N-nitrosodiethylamine	N-Nitrosomethylethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					10	50	50	50	100	100	100	100	50	50	0.2	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	2	0.5	0.5	0.5	0.5	0.5
NSW 1998 ASS Action Criteria																																					
NEPM 2013 Table 1A(1) HILs Res B Soil																																130		45,000			
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																					
0-1m					45			110							0.5	55	160				40																
1-2m					70			240							0.5		220				60																
2-4m					110			440							0.5		310				95																
>=4m					200										0.5		540				170																
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m						4,200			5,800		8,100				140	5,900	21,000				17,000																
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																																					
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																					
0-2m					180			120	300		2,800				50	70	85				105																
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2						1,000			2,500		10,000																										
NEPM 2013 Table 7 HSLs for Asbestos - Residential B																																					
Location Code	**Field ID**	**Date**	**Depth**	**Material**																																	
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	140	-	<100	-	140	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<10	<110	<110	<110	11,100	5,460	640	<110	11,700	5,460	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<10	<110	<110	<110	7,950	4,320	680	<110	8,630	4,320	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	<10	<110	-	<110	4,110	-	670	-	4,780	-	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<10	<110	-	<110	2,180	-	370	-	2,550	-	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<10	<50	-	<50	180	-	160	-	340	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	180	-	<100	-	180	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	<10	<110	<110	<110	1,090	<110	500	<110	1,590	<110	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	180	-	180	-	360	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	<10	<110	<110	<110	3,430	1,510	840	<110	4,270	1,510	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	<10	<110	<110	<110	4,750	980	590	<110	5,340	980	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	150	-	100	-	250	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	<10	<50	-	<50	120	-	<100	-	120	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	120	-	<100	-	120	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	100	-	<100	-	100	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	<10	<110	-	<110	1,490	-	500	-	1,990	-	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	<10	<50	<50	<50	540	<100	500	<100	1,040	<100	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	<10	<50	<50	<50	950	280	1,560	450	2,510	730	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<10	<50	**<50**	<50	1,340	480	1,280	430	2,620	910	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<10	<110	<110	<110	4,580	2,100	1,040	<110	5,620	2,100	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<10	<110	<110	<110	5,890	3,840	540	<110	6,430	3,840	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<10	<50	<50	<50	880	330	810	380	1,690	710	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	<10	<50	<50	<50	370	160	280	110	650	270	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	<10	<50	-	<50	640	-	340	-	980	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	<10	<50	<50	<50	520	190	350	180	870	370	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<10	<110	<110	<110	6,080	1,680	820	<110	6,900	1,680	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<10	<60	-	<60	1,220	-	1,430	-	2,650	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<2	<1.0	<1.0	-	-	-	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	120	-	170	-	290	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	<10	60	<50	60	2,050	640	1,100	370	3,210	1,010	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	160	-	<100	-	160	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<10	<50	-	<50	660	-	790	-	1,450	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<10	<50	-	<50	<100	-	<100	-	<50	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<10	<50	<50	<50	450	140	160	100	610	240	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	<10	<50	<50	<50	1,110	270	820	<100	1,930	270	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	<10	<50	-	<50	200	-	<100	-	200	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	<10	<50	-	<50	280	-	130	-	410	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<10	<50	<50	<50	970	290	280	100	1,250	390	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<10	<50	-	<50	700	-	100	-	800	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	<10	<50	-	<50	1,080	-	280	-	1,360	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	103	<50	-	<50	180	-	<100	-	180	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	<10	<50	<50	<50	800	<100	450	<100	1,250	<100	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	<10	<50	-	<50	590	-	350	-	940	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2	<2	<0.8	<0.8	-	-	-	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<10	<50	<50	<50	1,280	510	1,090	330	2,370	840	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	<10	<110	<60	<110	6,040	1,760	1,090	<100	7,130	1,760	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<4	<2.0	<2.0	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	<10	<110	-	<110	9,020	-	1,060	-	10,100	-	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	<10	<60	-	<60	810	-	640	-	1,450	-	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<2	<1.0	<1.0	-	-	-	-

					Amino Aromatics		Anilines						PCBs	VOCs			SVOCs																					
					N-Nitrosodiphenyl & Diphenylamine	1-naphthylamine	2-methyl-5-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-nitroaniline	Aniline	PCBs (Sum of total)	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	2-(acetylamino) fluorene	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethyl)ether	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopyrrolidine	Phenacetin	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	Dibenzofuran	4-chlorophenyl phenyl ether	4-bromophenyl phenyl ether	Bis(2-chloroethoxy) methane	N-nitrosopiperidine	Hexachlorocyclopentadiene	Hexachloroethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					1	0.5	0.5	1	0.5	0.5	1	0.5	0.1	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.5	0.5	0.5	0.5	0.5
NSW 1998 ASS Action Criteria																																						
NEPM 2013 Table 1A(1) HILs Res B Soil													1																									
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																						
0-1m																																						
1-2m																																						
2-4m																																						
>=4m																																						
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m																																						
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																																						
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																						
0-2m																																						
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2																																						
NEPM 2013 Table 7 HSLs for Asbestos - Residential B																																						
Location Code	**Field ID**	**Date**	**Depth**	**Material**																																		
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					Chlorinated Hydrocarbons																									Halogenated Benzenes						
					1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	2,2-dichloropropane	1,3-dichloropropane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chloroethane	Chlorodibromomethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Tetrachloroethene	trans-1,3-dichloropropene	trans-1,2-dichloroethene	Trichloroethene	Vinyl chloride	Hexachlorobenzene	Pentachlorobenzene	2-chlorotoluene	1,2,4-trichlorobenzene	1,2,3-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.05	0.5	0.5	0.5	0.5	0.5	0.5
NSW 1998 ASS Action Criteria																																					
NEPM 2013 Table 1A(1) HILs Res B Soil																															15						
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																					
0-1m																																					
1-2m																																					
2-4m																																					
>=4m																																					
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m																																					
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																																					
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																					
0-2m																																					
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2																																					
NEPM 2013 Table 7 HSLs for Asbestos - Residential B																																					
Location Code	**Field ID**	**Date**	**Depth**	**Material**																																	
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.06	-	-	-	-	-	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	-	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.06	-	-	-	-	-	-

					Halogenated Hydrocarbons					Herbicides	Nitroaromatics			Pesticides						Organochlorine Pesticides													
					1,4-dichlorobenzene	4-chlorotoluene	Bromobenzene	Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Pronamide	2-Picoline	4-aminobiphenyl	Pentachloronitrobenzene	Carbazole	Chlorobenzilate	Demeton-S-methyl	Fenamiphos	Parathion	Pirimphos-ethyl	Endosulfan	Chlordane (cis)	Chlordane (trans)	4,4-DDE	a-BHC	Aldrin	b-BHC	d-BHC	DDD	DDT	Dieldrin	Endosulfan I	Endosulfan II	DDT+DDE+DDD
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.05	0.05
NSW 1998 ASS Action Criteria																																				
NEPM 2013 Table 1A(1) HILs Res B Soil																								400												600
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																				
0-1m																																				
1-2m																																				
2-4m																																				
>=4m																																				
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m																																				
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																																180				
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																				
0-2m																																				
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2																																				
NEPM 2013 Table 7 HSLs for Asbestos - Residential B																																				
Location Code	**Field ID**	**Date**	**Depth**	**Material**																																
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	0.13	0.78	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	0.06	0.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	0.08	0.58	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	0.15	<0.05	<0.05	<0.05
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.2	1.03	<0.05	<0.05	<0.05
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	0.30	1.37	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	0.06	0.52	<0.05	<0.05	0.18	<0.05	<0.05	<0.05	<0.2	1.59	<0.05	<0.05	<0.05
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	0.16	1.44	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.2	0.58	<0.05	<0.05	<0.05
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	0.25	1.63	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	<0.25	<1.0	<0.25	<0.15	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.25	<0.25	<0.25	<0.08
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	<0.25	<1.0	<0.25	<0.15	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.25	<0.25	<0.25	<0.08
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.06	<0.06	<0.3	<0.06	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.06	<0.06	<0.06	<0.05
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	0.17
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.06	<0.06	<0.3	<0.06	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.06	<0.06	<0.06	<0.05

Location Code	Field ID	Date	Depth	Material	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Endrin aldehyde	Heptachlor	Endrin ketone	Heptachlor epoxide	Methoxychlor	chlordane	Aldrin + Dieldrin
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05
NSW 1998 ASS Action Criteria														
NEPM 2013 Table 1A(1) HILs Res B Soil						20			10			500	90	10
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand														
0-1m														
1-2m														
2-4m														
>=4m														
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m														
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space														
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil														
0-2m														
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2														
NEPM 2013 Table 7 HSLs for Asbestos - Residential B														
BH01	BH01_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH01_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH01_1.0_191127	27/11/2019	1	Natural	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	27/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH02	BH02_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	0.54	<0.2	0.91	<0.05
	BH02_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.27	<0.2	0.39	<0.05
	BH02_1.5	29/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	27/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
	QC100_191127	27/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH03_1.5_191127	27/11/2019	1.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH03_2.5_191127	27/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH04	BH04_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH04_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH04_1.5_191127	27/11/2019	1.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH05	BH05_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	0.20	<0.05	0.24	<0.2	0.66	<0.05
	BH05_0.9_191127	27/11/2019	0.9	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH05_1.2_191127	27/11/2019	1.2	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH06	BH06_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	0.15
	BH06_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	1.08
	BH06_2.2_191127	27/11/2019	2.2	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH07	BH07_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	0.64	<0.05	0.64	<0.2	1.67	<0.05
	BH07_0.9_191127	27/11/2019	0.9	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH07_1.1_191127	27/11/2019	1.1	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH08	BH08_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH08_1.1_191127	27/11/2019	1.1	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH08_2.0_191127	27/11/2019	2	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH09	BH09_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	0.20	<0.2	0.58	1.77
	BH09_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	1.18	<0.05	0.51	<0.2	1.60	0.64
	BH09_1.0_191127	27/11/2019	1	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	QC101_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	0.76	<0.05	0.82	<0.2	1.88	<0.05
	BH10_1.0_191128	28/11/2019	1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH10_2.5_191128	28/11/2019	2.5	Fill	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH12	BH12_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH12_1.5_191128	28/11/2019	1.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH12_2.5_191128	28/11/2019	2.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH13	BH13_0.3_191128	29/11/2019	0.3	Fill	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.08	<0.08
	BH13_0.5_191128	28/11/2019	0.5	Fill	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.08	<0.08
	BH13_1.5_191128	28/11/2019	1.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
	BH13_2.5_191128	28/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
BH14	BH14_0.3_191128	28/11/2019	0.3	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH14_1.0_191128	28/11/2019	1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH14_3.0_191128	28/11/2019	3	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH15	BH15_0.2_181128	28/11/2019	0.2	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH15_1.5_191128	28/11/2019	1.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
	BH15_2.5_191128	28/11/2019	2.5	Natural	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.05	<0.05
BH16	BH16_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH16_0.9_191128	28/11/2019	0.9	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH16_1.7_191128	28/11/2019	1.7	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH17	BH17_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH17_0.5_191128	28/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH17_2.5_191128	28/11/2019	2.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH18	BH18_0.1_191129	29/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH18_0.5_191129	29/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH18_2.8_191129	29/11/2019	2.8	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
BH19	BH19_0.5_191129	29/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH19_1.5_191129	29/11/2019	1.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	BH19_2.5_191129	29/11/2019	2.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	QC102_191129	29/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-
MW11	MW11_0.5_191128	28/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	MW11_3.5_191128	28/11/2019	3.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	MW11_5.0_191128	28/11/2019	5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
MW20	MW20_0.5_191129	29/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	MW20_1.8_191129	29/11/2019	1.8	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	MW20_4.0_191129	29/11/2019	4	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
MW21	MW21_0.3_191129	29/11/2019	0.3	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05
	MW21_1.3_191129	29/11/2019	1.3	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05
	QC103_191129	29/11/2019	1.3	Natural	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	29/11/2019	4.4	Natural	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.05	<0.05

Organophosphorous Pesticides

Field ID	Bromophos-ethyl	Azinophos methyl	Chlorpyrifos-methyl	Chlorpyrifos	Diazinon	Dichlorvos	Ethion	Dimethoate	Carbophenothion	Malathion	Prothiofos	Chlorfenvinphos	Fenthion	Methyl parathion	Monocrotophos
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2
NSW 1998 ASS Action Criteria															
NEPM 2013 Table 1A(1) HILs Res B Soil				340											
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand															
0-1m															
1-2m															
2-4m															
>=4m															
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m															
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space															
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil															
0-2m															
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2															
NEPM 2013 Table 7 HSLs for Asbestos - Residential B															
BH01_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH01_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH01_1.0_191127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_2.5_191127	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH02_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH02_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH02_1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.5_191127	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
QC100_191127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH03_1.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH03_2.5_191127	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH04_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH04_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH04_1.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH05_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH05_0.9_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH05_1.2_191127	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH06_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH06_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH06_2.2_191127	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH07_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH07_0.9_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH07_1.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH08_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH08_1.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH08_2.0_191127	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH09_0.1_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH09_0.5_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH09_1.0_191127	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
QC101_191127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10_0.1_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH10_1.0_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH10_2.5_191128	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH12_0.1_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH12_1.5_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH12_2.5_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH13_0.3_191128	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<1.0
BH13_0.5_191128	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<1.0
BH13_1.5_191128	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH13_2.5_191128	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH14_0.3_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH14_1.0_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH14_3.0_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH15_0.2_181128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH15_1.5_191128	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
BH15_2.5_191128	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.3
BH16_0.1_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH16_0.9_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH16_1.7_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH17_0.1_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH17_0.5_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH17_2.5_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH18_0.1_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH18_0.5_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH18_2.8_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH19_0.5_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH19_1.5_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
BH19_2.5_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
QC102_191129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11_0.5_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW11_3.5_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW11_5.0_191128	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW20_0.5_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW20_1.8_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW20_4.0_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW21_0.3_191129	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2
MW21_1.3_191129	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5
QC103_191129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21_4.4_191129	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.3

Field ID	Explosives				Phthalates			
	1,3,5-Trinitrobenzene	Nitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Butyl benzyl phthalate	Bis(2-ethylhexyl) phthalate	Diethylphthalate	Dimethyl phthalate
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	1	1	0.5	5	0.5	0.5
NSW 1998 ASS Action Criteria								
NEPM 2013 Table 1A(1) HILs Res B Soil								
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand								
0-1m								
1-2m								
2-4m								
>=4m								
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m								
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space								
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil								
0-2m								
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2								
NEPM 2013 Table 7 HSLs for Asbestos - Residential B								
BH01_0.1_191127	-	-	-	-	-	-	-	-
BH01_0.5_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH01_1.0_191127	-	-	-	-	-	-	-	-
BH01_2.5_191127	-	-	-	-	-	-	-	-
BH02_0.1_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH02_0.5_191127	-	-	-	-	-	-	-	-
BH02_1.5	-	-	-	-	-	-	-	-
BH02_2.5_191127	-	-	-	-	-	-	-	-
QC100_191127	-	-	-	-	-	-	-	-
BH03_0.5_191127	-	-	-	-	-	-	-	-
BH03_1.5_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH03_2.5_191127	-	-	-	-	-	-	-	-
BH04_0.1_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH04_0.5_191127	-	-	-	-	-	-	-	-
BH04_1.5_191127	-	-	-	-	-	-	-	-
BH05_0.1_191127	-	-	-	-	-	-	-	-
BH05_0.9_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH05_1.2_191127	-	-	-	-	-	-	-	-
BH06_0.1_191127	-	-	-	-	-	-	-	-
BH06_0.5_191127	-	-	-	-	-	-	-	-
BH06_2.2_191127	-	-	-	-	-	-	-	-
BH07_0.1_191127	-	-	-	-	-	-	-	-
BH07_0.9_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH07_1.1_191127	-	-	-	-	-	-	-	-
BH08_0.5_191127	-	-	-	-	-	-	-	-
BH08_1.1_191127	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH08_2.0_191127	-	-	-	-	-	-	-	-
BH09_0.1_191127	-	-	-	-	-	-	-	-
BH09_0.5_191127	-	-	-	-	-	-	-	-
BH09_1.0_191127	-	-	-	-	-	-	-	-
QC101_191127	-	-	-	-	-	-	-	-
BH10_0.1_191128	-	-	-	-	-	-	-	-
BH10_1.0_191128	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH10_2.5_191128	-	-	-	-	-	-	-	-
BH12_0.1_191128	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH12_1.5_191128	-	-	-	-	-	-	-	-
BH12_2.5_191128	-	-	-	-	-	-	-	-
BH13_0.3_191128	-	-	-	-	-	-	-	-
BH13_0.5_191128	-	-	-	-	-	-	-	-
BH13_1.5_191128	-	-	-	-	-	-	-	-
BH13_2.5_191128	-	-	-	-	-	-	-	-
BH14_0.3_191128	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH14_1.0_191128	-	-	-	-	-	-	-	-
BH14_3.0_191128	-	-	-	-	-	-	-	-
BH15_0.2_181128	-	-	-	-	-	-	-	-
BH15_1.5_191128	-	-	-	-	-	-	-	-
BH15_2.5_191128	-	-	-	-	-	-	-	-
BH16_0.1_191128	-	-	-	-	-	-	-	-
BH16_0.9_191128	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH16_1.7_191128	-	-	-	-	-	-	-	-
BH17_0.1_191128	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH17_0.5_191128	-	-	-	-	-	-	-	-
BH17_2.5_191128	-	-	-	-	-	-	-	-
BH18_0.1_191129	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH18_0.5_191129	-	-	-	-	-	-	-	-
BH18_2.8_191129	-	-	-	-	-	-	-	-
BH19_0.5_191129	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
BH19_1.5_191129	-	-	-	-	-	-	-	-
BH19_2.5_191129	-	-	-	-	-	-	-	-
QC102_191129	-	-	-	-	-	-	-	-
MW11_0.5_191128	-	-	-	-	-	-	-	-
MW11_3.5_191128	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
MW11_5.0_191128	-	-	-	-	-	-	-	-
MW20_0.5_191129	-	-	-	-	-	-	-	-
MW20_1.8_191129	-	-	-	-	-	-	-	-
MW20_4.0_191129	-	-	-	-	-	-	-	-
MW21_0.3_191129	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5
MW21_1.3_191129	-	-	-	-	-	-	-	-
QC103_191129	-	-	-	-	-	-	-	-
MW21_4.4_191129	-	-	-	-	-	-	-	-

					Solvents								Other	SPOCAS																					
					Di-n-butyl phthalate	Di-n-octyl phthalate	Isophorone	2-hexanone (MBK)	4-Methyl-2-pentanone	Vinyl acetate	Carbon disulfide	Methyl Ethyl Ketone	Acetophenone	Acid Reacted Calcium	Acid Reacted Magnesium	acidity - Acid Reacted Calcium	acidity - Acid Reacted Magnesium	acidity - Excess Acid Neutralising Capacity	acidity - Peroxide Oxidisable Sulfur	ANC Fineness Factor	Calcium in Peroxide	HCl Extractable Sulfur	Excess Acid Neutralising Capacity	a-Net Acidity without ANCE	KCl Extractable Calcium	KCl Extractable Magnesium	KCl Extractable Sulfur	Liming Rate	Magnesium in Peroxide	Liming rate without ANCE	Net Acid Soluble Sulfur	Net Acidity (acidity units)	Peroxide Oxidisable Sulfur	Net Acidity (sulfur units)	pH (KCl)	pH (Ox)	s-Net Acidity without ANCE
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	mole H+/t	mole H+/t	mole H+/t	mole H+/t	-	%	%S	% CaCO3	moles H+/t	%	%	%	kg CaCO3/t	%	kg CaCO3/t	%S	mole H+/t	%	%S	-	-	% S
EQL					0.5	0.5	0.5	5	5	5	0.5	5	0.5	0.02	0.02	10	10	10	10	0.5	0.02	0.02		10	0.02	0.02	0.02	1	0.02	1	0.02	10	0.02	0.02	0.1	0.1	
NSW 1998 ASS Action Criteria																															18	0.03%	0.03%	<5		
NEPM 2013 Table 1A(1) HILs Res B Soil																																				
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand																																				
0-1m																																				
1-2m																																				
2-4m																																				
>=4m																																				
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m																																				
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space																																				
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil																																				
0-2m																																				
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2																																				
NEPM 2013 Table 7 HSLs for Asbestos - Residential B																																				

Location Code	Field ID	Date	Depth	Material																																
BH01	BH01_0.1_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	27/11/2019	0.5	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	0.409	<0.020	204	<10	275	<10	1.5	0.612	-	1.38	<10	0.203	<0.020	<0.020	<1	<0.020	<1	-	<10	<0.020	<0.02	9.1	7.6	<0.02
	BH01_1.0_191127	27/11/2019	1	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	27/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	0.058	<0.020	29	<10	-	1,630	1.5	0.421	-	-	1,800	0.363	0.223	0.060	135	0.223	135	-	1,800	2.61	2.88	4.5	1.6	2.88
BH02	BH02_0.1_191127	27/11/2019	0.1	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_0.5_191127	27/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	29/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	0.037	0.022	19	18	-	43	1.5	0.192	-	-	61	0.155	<0.020	0.030	4	0.022	4	-	61	0.070	0.10	5.3	3.1	0.10
	BH02_2.5_191127	27/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	951	1.5	0.310	-	-	1,150	0.525	0.212	0.036	86	0.142	86	-	1,150	1.52	1.84	4.5	1.8	1.84
	QC100_191127	27/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5_191127	27/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	27/11/2019	1.5	Natural	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	<0.020	0.056	<10	46	-	573	1.5	0.530	-	-	578	0.876	0.050	<0.020	43	0.106	43	-	578	0.919	0.93	6.3	2.4	0.93
	BH03_2.5_191127	27/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	105	1.5	0.062	-	-	176	0.062	0.102	<0.020	13	0.102	13	-	176	0.168	0.28	4.5	2.7	0.28
BH04	BH04_0.1_191127	27/11/2019	0.1	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_0.5_191127	27/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	27/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	958	1.5	0.596	<0.020	-	1,270	0.640	0.289	0.036	95	0.289	95	<0.020	1,270	1.54	2.04	4.3	1.8	2.04
BH05	BH05_0.1_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	27/11/2019	0.9	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	0.042	<0.020	21	<10	-	28	1.5	0.267	-	-	28	0.225	<0.020	<0.020	<1	<0.020	2	-	<10	0.045	<0.02	6.8	3.8	0.04
	BH05_1.2_191127	27/11/2019	1.2	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	1,030	1.5	0.917	-	-	1,140	1.92	0.225	0.073	85	0.237	85	-	1,140	1.65	1.82	5.2	2.0	1.82
BH06	BH06_0.1_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	27/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	27/11/2019	2.2	Natural	-	-	-	-	-	-	-	-	-	0.044	0.021	22	17	-	666	1.5	0.128	0.029	-	887	0.084	0.142	0.023	66	0.163	66	<0.020	887	1.07	1.42	4.1	2.0	1.42
BH07	BH07_0.1_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	27/11/2019	0.9	Natural	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	<0.020	<0.020	<10	<10	-	33	1.5	0.209	-	-	33	0.251	<0.020	<0.020	2	<0.020	2	-	33	0.053	0.05	6.3	5.4	0.05
	BH07_1.1_191127	27/11/2019	1.1	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	97	1.5	0.228	-	-	105	0.227	<0.020	<0.020	8	<0.020	8	-	105	0.156	0.17	5.7	2.5	0.17
BH08	BH08_0.5_191127	27/11/2019	0.5	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	1.12	<0.020	560	<10	656	16	1.5	1.39	-	3.28	16	0.271	<0.020	<0.020	<1	<0.020	1	-	<10	0.026	<0.02	10.6	7.6	0.02
	BH08_1.1_191127	27/11/2019	1.1	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08_2.0_191127	27/11/2019	2	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	BH09_0.1_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	27/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	27/11/2019	1	Natural	-	-	-	-	-	-	-	-	-	0.062	<0.020	31	<10	164	12	1.5	0.277	-	0.820	12	0.214	<0.020	<0.020	<1	<0.020	<1	-	<10	0.020	<0.02	7.0	7.3	0.02
	QC101_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1_191128	28/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	28/11/2019	1	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_2.5_191128	28/11/2019	2.5	Fill	-	-	-	-	-	-	-	-	-	0.047	<0.020	24	11	-	1,200	1.5	0.159	0.035	-	1,420	0.112	0.144	0.027	107	0.158	107	<0.020	1,420	1.93	2.28	4.1	1.7	2.28
BH12	BH12_0.1_191128	28/11/2019	0.1	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_1.5_191128	28/11/2019	1.5	Fill	-	-	-	-	-	-	-	-	-	0.516	0.044	258	36	-	1,490	1.5	1.40	0.113	-	1,870	0.882	0.130	0.231	141	0.174	141	<0.020	1,870	2.39	3.00	3.8	1.7	3.00
	BH12_2.5_191128	28/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	<10	1.5	<0.020	-	-	<10	<0.020	<0.020	<0.020	<1	<0.020	<1	-	<10	<0.020	<0.02	5.7	3.8	<0.02
BH13	BH13_0.3_191128	29/11/2019	0.3	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	28/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	28/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	0.081	0.034	40	28	-	1,360	1.5	0.355	0.046	-	1,690	0.274	0.307	0.059	127	0.341	127	<0.020	1,690	2.18	2.70	4.0	1.5	2.70
	BH13_2.5_191128	28/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	BH14_0.3_191128	28/11/2019	0.3	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	1.31	0.080	653	66	706	30	1.5	1.67	-	3.54	30	0.365	<0.020	0.024	<1	0.080	2	-	<10	0.048	<0.02	10.9	8.4	0.05
	BH14_1.0_191128	28/11/2019	1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	28/11/2019	3	Natural	-	-	-	-	-	-	-	-	-	0.081	0.066	40	54	-	418	1.5	0.168	-	-	519	0.087	0.070	<0.020	39	0.136	39	-	519	0.669	0.83	4.6	2.0	0.83
BH15	BH15_0.2_181128	28/11/2019	0.2	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	28/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	1,230	1.5	0.681	-	-	1,320	0.821	0.068	0.038	99	0.053	99	-	1,320	1.98	2.11	5.0	1.8	2.11
	BH15_2.5_191128	28/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	1,110	1.5	0.116	0.023	-	1,280	0.109	0.173	0.023	96	0.180	96	<0.020	1,280	1.78	2.05	4.1	1.8	2.05
BH16	BH16_0.1_191128	28/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	28/11/2019	0.9	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_1.7_191128	28/11/2019	1.7	Natural	-	-	-	-	-	-	-	-	-	0.138	<0.020	69	<10	-	1,530	1.5	0.810	0.131	-	1,860	0.672	0.127	0.155	140	0.136	140	<0.020	1,860	2.46	2.99	3.7	1.6	2.99
BH17	BH17_0.1_191128	28/11/2019	0.1	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_0.5_191128	28/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	<10	1.5	0.060	-	-	<10	0.053	<0.020	<0.020	<1	<0.020	<1	-	<10	<0.020	<0.02	7.4	6.3	<0.02
	BH17_2.5_191128	28/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	12	-	352	1.5	0.062	-	-	377	0.054	0.091	<0.020	28	0.106	28	-	377	0.564	0.60	4.6	2.1	0.60
BH18	BH18_0.1_191129	29/11/2019	0.1	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_0.5_191129	29/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	29/11/2019	2.8	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	21	1.5	<0.020	-	-	21	<0.020	<0.020	<0.020	2	<0.020	2	-	21	0.034	0.03	5.7	3.2	0.03
BH19	BH19_0.5_191129	29/11/2019	0.5	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19_1.5_191129	29/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	0.367	0.028	183	23	-	1,470	1.5	1.43	-	-	1,610	1.06	0.108	0.058	120	0.136	120	-	1,610	2.36	2.58	4.9	1.7	2.58
	BH19_2.5_191129	29/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	187	1.5	0.049	<0.020	-	243	0.048	0.103	<0.020	18	0.103	18	<0.020	243	0.299	0.39	4.4	2.4	0.39
	QC102_191129	29/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	MW11_0.5_191128	28/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	28/11/2019	3.5	Natural	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	<0.020	<0.020	<10	<10	-	58	1.5	0.068	-	-	68	0.068	<0.020	<0.020	5	<0.020	5	-	68	0.094	0.11	5.1	2.6	0.11
	MW11_5.0_191128	28/11/2019	5	Natural	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	28	1.5	0.034	-	-	34	0.034	<0.020	<0.020	2	<0.020	2	-	34	0.046	0.05	5.3	2.7	0.05
MW20	MW20_0.5_191129	29/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	29/11/2019	1.8	Natural	-	-	-	-	-	-	-	-	-	<0.020	0.021	<10	17	-	1,040	1.5	0.821	-	-	1,150	1.15	0.080	<0.020	86	0.101	86	-	1,150	1.67	1.84	5.2	2.0	1.84
	MW20_4.0_191129	29/11/2019	4	Natural	-	-	-	-	-	-	-	-	-	<0.020	0.023	<10	19	-	277	1.5	0.320	-	-	299	0.312	0.088	<0.020	22	0.112	22	-	299	0.444	0.48	5.1	2.2	0.48
MW21	MW21_0.3_191129	29/11/2019	0.3	Fill	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_1.3_191129	29/11/2019	1.3	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC103_191129	29/11/2019	1.3	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	29/11/2019	4.4	Natural	-	-	-	-	-	-	-	-	-	0.048	0.045	24	37	-	2,110	1.5	0.164	0.039	-	2,410	0.115	0.198	0.073	181	0.243	181	<0.020	2,410	3.38	3.87	4.0	1.5	3.87

					sulfidic - Acid Reacted Calcium	sulfidic - Acid Reacted Magnesium	sulfidic - Excess Acid Neutralising Capacity	sulfidic - Titratable Actual Acidity	sulfidic - Titratable Peroxide Acidity	Sulfur in Peroxide	sulfidic - Titratable Sulfidic Acidity	Titratable Actual Acidity	Titratable Peroxide Acidity	Titratable Sulfidic Acidity
					% S	%S	%S	%S	%S	%	%S	mole H+/t	mole H+/t	mole H+/t
EQL						0.02	0.02	0.02	0.02	0.02	0.02	2	2	2
NSW 1998 ASS Action Criteria												18	18	18
NEPM 2013 Table 1A(1) HILs Res B Soil														
NEPM 2013 Table 1A(3) Res A/B Soil HSL for Vapour Intrusion, Sand														
0-1m														
1-2m														
2-4m														
>=4m														
NEPM 2013 HSL B Res (High-Density) - direct contact, 0-2m														
NEPM 2013 Table 1B(4) Generic EIL - Urban Res & Public Open Space														
NEPM 2013 Table 1B(5) ESLs for Urban Res, Coarse Soil														
0-2m														
NEPM 2013 Table 1B(6) Management Limits in Res/Parkland, Coarse 0-2														
NEPM 2013 Table 7 HSLs for Asbestos - Residential B														
Location Code	**Field ID**	**Date**	**Depth**	**Material**										
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	0.328	<0.020	0.441	<0.020	<0.020	<0.020	<0.020	<2	<2	<2
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	0.046	<0.020	-	0.274	11.1	2.67	10.9	171	6,940	6,770
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	0.030	0.030	-	0.028	0.156	0.100	0.128	18	98	80
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<0.020	<0.020	-	0.319	8.63	1.56	8.31	199	5,380	5,180
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.020	0.074	-	<0.020	1.19	0.919	1.18	5	743	738
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<0.020	<0.020	-	0.113	0.932	0.168	0.819	70	581	511
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.020	<0.020	-	0.500	7.58	1.57	7.08	312	4,730	4,420
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	0.034	<0.020	-	<0.020	<0.020	0.045	<0.020	<2	<2	<2
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	<0.020	<0.020	-	0.174	9.67	1.72	9.50	108	6,030	5,920
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	0.035	0.027	-	0.350	4.84	1.09	4.49	218	3,020	2,800
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.020	<0.020	-	<0.020	<0.020	0.053	<0.020	<2	<2	<2
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.020	<0.020	-	<0.020	0.511	0.156	0.498	8	319	311
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	0.897	<0.020	1.05	<0.020	<0.020	0.026	<0.020	<2	<2	<2
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	-	-	-	-	-	-
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	0.050	<0.020	0.262	<0.020	<0.020	0.020	<0.020	<2	<2	<2
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	0.038	<0.020	-	0.344	10.6	1.96	10.3	214	6,630	6,420
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	0.413	0.058	-	0.701	11.7	2.62	11.0	437	7,310	6,870
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020	<2	<2	<2
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	0.065	0.044	-	0.532	12.9	2.24	12.4	332	8,040	7,710
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	1.05	0.106	1.13	<0.020	<0.020	0.072	<0.020	<2	<2	<2
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	0.065	0.087	-	0.163	2.81	0.669	2.65	102	1,750	1,650
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<0.020	<0.020	-	0.128	9.18	2.02	9.05	80	5,720	5,640
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.020	<0.020	-	0.274	8.26	1.80	7.99	171	5,160	4,980
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	0.110	<0.020	-	0.548	12.3	2.61	11.7	342	7,660	7,320
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020	<2	<2	<2
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.020	<0.020	-	0.041	1.88	0.564	1.84	26	1,180	1,150
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<0.020	<0.020	-	<0.020	<0.020	0.034	<0.020	<2	<2	<2
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	0.294	0.036	-	0.220	11.4	2.41	11.2	137	7,140	7,000
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	<0.020	<0.020	-	0.091	1.40	0.299	1.31	56	875	818
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.020	<0.020	-	<0.020	0.317	0.094	0.301	10	198	188
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	<0.020	<0.020	-	<0.020	0.160	0.046	0.152	5	100	95
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	<0.020	0.028	-	0.172	7.91	1.67	7.73	108	4,930	4,820
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	<0.020	0.030	-	0.035	1.41	0.444	1.37	22	879	857
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	0.038	0.059	-	0.511	8.81	3.45	8.30	319	5,500	5,180

					Asbestos						Physical				Inorganics			Metals									MAH								
					Asbestos (Fines and Fibrous <7mm)	Asbestos Identified?	Asbestos Containing Material	Asbestos Containing Material (as 15% Asbestos in A)	Fibrous Asbestos >7mm	Asbestos from FA & AF in Soil	weight of sample	Moisture Content	Net Acid Soluble Sulfur (in acid units)	Net Acid Soluble Sulfur (in sulfur units)	pH (after HCL)	pH (Final)	pH (Initial)	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Lead (TCLP)	Mercury	Nickel	Zinc	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	isopropylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene
					g	Y/N	g	% (w/w)	g	%w/w	g	%	mole H+/t	%S	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.0004	-	0.1	0.01	0.0004	0.001	0.01	1	10	0.02	0.1	0.1	0.1	5	1	2	5	5	0.1	0.1	2	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NSW 2014 Excavated Natural Material (Absolute Max)																		40	1	150	200	100		1	60	300									
NSW 2014 Excavated Natural Material (Max Average)																		20	0.5	75	100	50		0.5	30	150									
NSW 2014 General Solid Waste SCC1 (with leached)																		500	100			1,500		50	1,050									108	
NSW 2014 General Solid Waste TCLP1 (leached)																							5												
NSW 2014 Restricted Solid Waste SCC2 (with leached)																		2,000	400			6,000		200	4,200									432	
NSW 2014 Restricted Solid Waste TCLP2 (leached)																							20												
Location Code	**Field ID**	**Date**	**Depth**	**Material**																															
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	410	9.6	-	-	-	-	-	<5	<1	5	11	104	-	0.1	2	121	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-		-	-	-	-	-	8.8	-	-	1.4	5.3	8.9	<5	<1	6	26	128	0.2	0.8	5	147	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	No	-	-	-	-	346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	82.6	-	-	-	-	-	<5	<1	7	5	<5	-	<0.1	5	7	-	-	-	-	-	-	-	-	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	326	11.9	-	-	1.5	5.2	8.8	<5	<1	5	15	198	0.3	0.2	3	301	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	381	9.1	-	-	-	-	-	<5	<1	5	7	75	-	0.2	<2	118	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	84.6	-	-	-	-	-	<5	<1	6	6	8	-	0.2	6	14	-	-	-	-	-	-	-	-	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	85.0	-	-	-	-	-	<5	<1	4	<5	<5	-	<0.1	<2	13	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	347	23.4	-	-	-	-	-	<5	<1	<2	<5	27	-	<0.1	<2	94	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	40.6	-	-	-	-	-	<5	<1	10	14	68	-	0.2	9	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	83.8	-	-	-	-	-	<5	<1	10	8	<5	-	0.1	14	14	-	-	-	-	-	-	-	-	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	464	5.5	-	-	1.4	5.0	7.8	<5	<1	4	20	140	0.3	0.2	<2	146	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	453	6.5	-	-	1.8	5.7	8.9	<5	<1	4	15	245	2.0	0.2	<2	157	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	14.3	<10	<0.020	-	-	-	<5	<1	11	10	68	-	0.2	10	30	-	-	-	-	-	-	-	-	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	514	5.1	-	-	2.0	6.1	8.8	<5	<1	9	33	610	0.6	0.5	7	459	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	225	10.9	-	-	1.4	5.0	6.9	6	<1	12	12	292	<0.1	1.4	6	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-		-	-	-	-	-	84.1	-	-	-	-	-	<5	<1	16	9	<5	-	<0.1	3	23	-	-	-	-	-	-	-	-	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	164	10.5	-	-	1.6	5.1	7.3	<5	<1	6	16	120	<0.1	0.2	2	191	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	502	4.7	-	-	1.6	5.6	8.9	<5	<1	5	11	154	0.2	0.3	2	173	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-		-	-	-	-	-	84.9	<10	<0.020	-	-	-	<5	<1	32	16	10	-	0.3	19	24	-	-	-	-	-	-	-	-	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	414	5.6	-	-	1.6	6.0	8.9	<5	<1	6	16	131	<0.1	0.2	2	241	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	-		-	-	-	-	-	23.7	-	-	-	-	-	<5	<1	<2	<5	6	-	<0.1	<2	6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-		-	-	-	-	-	23.4	-	-	-	-	-	<5	<1	<2	<5	17	-	<0.1	<2	16	-	-	-	-	-	-	-	-	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	469	3.8	-	-	1.5	5.3	8.8	<5	<1	8	32	300	0.3	0.4	5	349	-	-	-	-	-	-	-	-	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	346	15.6	-	-	-	-	-	<5	<1	5	<5	<5	-	<0.1	<2	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-		-	-	-	-	-	83.2	-	-	-	-	-	<5	<1	6	6	<5	-	<0.1	10	8	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	268	27.9	-	-	1.6	5.4	8.8	<5	<1	6	17	139	0.1	0.2	3	229	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	376	7.8	-	-	1.4	5.3	8.8	<5	<1	5	11	102	-	0.2	2	141	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-		-	-	-	-	-	7.3	-	-	-	-	-	<5	<1	<2	<5	<5	-	<0.1	<2	231	-	-	-	-	-	-	-	-	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-		-	-	-	-	-	6.9	-	-	-	-	-	<5	<1	6	15	145	-	0.2	2	200	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	365	16.2	-	-	1.7	5.8	8.6	<5	<1	9	16	145	<0.1	0.2	4	254	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	323	19.5	-	-	-	-	-	<5	<1	18	25	119	-	0.6	20	88	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-		-	-	-	-	-	85.3	<10	<0.020	-	-	-	<5	<1	8	11	<5	-	<0.1	15	14	-	-	-	-	-	-	-	-	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	420	2.7	-	-	1.4	5.0	7.2	<5	<1	3	9	75	-	0.2	<2	119	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-		-	-	-	-	-	53.0	<10	<0.020	-	-	-	8	<1	6	6	948	-	0.2	5	572	-	-	-	-	-	-	-	-	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	16.1	-	-	-	-	-	<5	<1	<2	<5	<5	-	<0.1	<2	<5	-	-	-	-	-	-	-	-	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-		-	-	-	-	34.5	2.8	-	-	1.5	5.7	9.2	<5	<1	6	94	37	-	<0.1	9	59	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	520	1.6	-	-	1.7	5.8	10.2	<5	<1	13	198	60	-	<0.1	24	99	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	83.7	<10	<0.020	-	-	-	<5	<1	6	20	8	-	<0.1	4	10	-	-	-	-	-	-	-	-	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	82.3	-	-	-	-	-	<5	<1	16	15	14	-	<0.1	14	185	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	462	22.4	-	-	1.5	5.4	9.8	<5	<1	7	139	228	0.4	0.3	18	210	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	No	-	-	-	-	339	10.9	-	-	1.8	5.4	8.5	9	3	17	142	543	0.1	0.6	16	1,570	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-		-	-	-	-	-	69.5	-	-	-	-	-	<5	<1	22	21	11	-	<0.1	10	20	-	-	-	-	-	-	-	-	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	No	-	-	-	-	410	20.9	-	-	1.5	5.4	8.5	<5	<1	8	48	205	-	0.5	13	172	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	84.0	-	-	-	-	-	<5	<1	11	8	21	-	0.1	5	110	-	-	-	-	-	-	-	-	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	75.4	<10	<0.020	-	-	-	<5	<1	21	14	8	-	<0.1	14	5	-	-	-	-	-	-	-	-	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	No	-	-	-	-	265	1.7	-	-	-	-	-	<5	<1	3	16	93	-	0.1	<2	70	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	261	6.3	-	-	-	-	-	<5	<1	10	30	534	-	0.6	7	252	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-		-	-	-	-	-	63.8	<10	<0.020	-	-	-	<5	<1	3	<5	<5	-	<0.1	<2	135	-	-	-	-	-	-	-	-	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	276	2.2	-	-	1.4	5.2	8.5	<5	<1	4	16	115	0.2	0.2	2	152	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	318	2.4	-	-	-	-	-	<5	<1	<2	12	39	-	0.1	<2	96	-	-	-	-	-	-	-	-	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	61.5	-	-	-	-	-	<5	<1	22	14	10	-	<0.1	9	9	-	-	-	-	-	-	-	-	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	227	11.4	-	-	1.4	5.0	7.8	<5	<1	3	10	109	0.2	0.1	<2	137	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	No	-	-	-	-	260	9.1	-	-	1.4	5.0	7.6	<5	<1	3	25	87	-	0.5	<2	53	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-		-	-	-	-	-	22.9	-	-	-	-	-	<5	<1	<2	<5	<5	-	<0.1	<2	<5	-	-	-	-	-	-	-	-	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	**0.0244**	**Yes**	<0.1	<0.01	<0.0004	**0.008**	315	13.4	-	-	1.6	5.2	8.4	<5	6	12	235	446	0.5	1.2	20	576	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-		-	-	-	-	-	73.8	-	-	-	-	-	<5	<1	5	<5	<5	-	<0.1	3	7	-	-	-	-	-	-	-	-	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-		-	-	-	-	-	71.9	<10	<0.020	-	-	-	<5	<1	21	24	12	-	<0.1	13	12	-	-	-	-	-	-	-	-	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-		-	-	-	-	-	7.1	-	-	-	-	-	<5	3	9	121	438	-	0.3	12	310	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	350	18.4	-	-	1.4	5.0	7.6	<5	<1	7	69	405	0.2	0.5	5	475	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	-		-	-	-	-	-	37.1	-	-	1.4	4.9	5.4	<5	<1	5	11	53	-	<0.1	2	69	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-		-	-	-	-	-	25.7	-	-	1.4	4.9	5.7	<5	<1	3	8	41	-	<0.1	<2	48	-	-	-	-	-	-	-	-	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	**0.265**	**Yes**	<0.1	<0.01	<0.0004	**0.082**	323	8.2	-	-	-	-	-	<5	<1	17	128	1,170	-	0.8	9	812	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	No	-	-	-	-	142	71.7	-	-	-	-	-	<5	<1	5	9	26	-	<0.1	5	35	-	-	-	-	-	-	-	-	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-		-	-	-	-	-	50.6	-	-	1.5	4.9	6.4	<5	<1	15	27	118	<0.1	0.2	10	85	-	-	-	-	-	-	-	-	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.0004	No	<0.1	<0.01	<0.0004	<0.001	271	20.8	-	-	1.4	5.1	8.3	<5	<1	13	111	38	-	0.1	10	37	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	No	-	-	-	-	33.9	80.1	-	-	-	-	-	<5	<1	4	<5	<5	-	<0.1	3	60	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-		-	-	-	-	-	81.8	-	-	-	-	-	<5	<1	6	6	10	-	0.2	4	43	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-		-	-	-	-	-	76.3	<10	<0.020	-	-	-	6	<1	16	16	6	-	<0.1	40	26	-	-	-	-	-	-	-	-	-

					PAH																							TPH					
					Naphthalene	2-methylnaphthalene	Acenaphthene	Benzo(a) pyrene	Benzo(a) pyrene - TCLP	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(g,h,i)perylene	Benzo(b+j)fluoranthene	Benzo(k)fluoranthene	Sum of PAHs	Chrysene	Fluoranthene	Dibenz(a,h)anthracene	2-chloronaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Fluorene	Indeno(1,2,3-c,d)pyrene	Pyrene	Phenanthrene	C6-C9	C10-C14	TPH C10-C14 Fraction after Silica Cleanup	C15-C28	TPH C15-C28 Fraction after Silica Cleanup	C29-C36
					mg/kg	mg/kg	mg/kg	mg/kg	µg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	10	50	50	100	100	100
NSW 2014 Excavated Natural Material (Absolute Max)								1																										
NSW 2014 Excavated Natural Material (Max Average)								0.5																										
NSW 2014 General Solid Waste SCC1 (with leached)								10																					6,500					
NSW 2014 General Solid Waste TCLP1 (leached)									40																									
NSW 2014 Restricted Solid Waste SCC2 (with leached)								23																					2,600					
NSW 2014 Restricted Solid Waste TCLP2 (leached)									160																									
Location Code	**Field ID**	**Date**	**Depth**	**Material**																														
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	1.5	<0.5	2.2	2.5	0.5	0.7	1.7	2.0	0.8	1.6	0.6	20.2	1.4	4.0	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	4.1	2.7	<10	<50	-	100	-	<100
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	7,540	3,710	4,140
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	5,200	2,780	3,320
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<110	-	3,050	-	1,500
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	0.6	-	1.0	1.3	<0.5	<0.5	0.8	0.7	<0.5	<0.5	<0.5	7.2	0.6	1.8	<0.5	-	-	-	<0.5	<0.5	2.0	1.4	<10	<50	-	<100	-	<100
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	-	1,130	-	1,310
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	190
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	2.4	<0.5	3.3	3.5	0.8	1.0	2.5	3.0	0.6	2.1	0.8	29.8	2.2	6.3	<0.5	-	-	-	<0.5	0.6	6.0	4.5	<10	<50	-	120	-	<100
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	650	<220	730
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	120	-	180
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	0.6	-	1.0	1.3	<0.5	<0.5	0.6	0.7	<0.5	<0.5	<0.5	5.8	0.5	1.6	<0.5	-	-	-	<0.5	<0.5	1.5	1.0	<10	<50	-	<100	-	<100
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	1,980	660	2,140
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	0.5	-	0.8	1.2	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	3.3	<0.5	1.1	<0.5	-	-	-	<0.5	<0.5	1.2	0.5	<10	<50	-	<100	-	<100
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<10	<50	-	<100	-	<100
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	0.6	-	1.0	1.3	<0.5	<0.5	0.5	0.6	<0.5	<0.5	<0.5	3.8	0.5	1.0	<0.5	-	-	-	<0.5	<0.5	1.2	<0.5	<10	<50	-	<100	-	<100
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	2,720	520	2,460
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	0.8	<0.5	1.2	1.5	<0.5	<0.5	0.8	0.9	<0.5	0.5	<0.5	7.2	0.7	1.7	<0.5	-	-	-	<0.5	<0.5	1.9	0.8	<10	<50	-	<100	-	110
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	0.8	<0.5	1.2	1.6	<0.5	<0.5	0.8	0.9	<0.5	0.6	<0.5	8.1	0.6	2.0	<0.5	-	-	-	<0.5	<0.5	1.9	1.4	<10	<50	-	<100	-	<100
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	120
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	-	<100	-	<100
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	0.9	<0.5	1.4	1.7	<0.5	<0.5	0.9	1.1	<0.5	0.7	<0.5	9.5	0.8	2.3	<0.5	-	-	-	<0.5	<0.5	2.4	1.5	<10	<50	-	<100	-	<100
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	-	750	-	1,030
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	0.9	<0.5	1.4	1.7	<0.5	<0.5	0.9	1.1	<0.5	1.0	<0.5	8.7	0.8	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	1.1	<10	<50	-	<100	-	<100
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	270	<100	520
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	<0.5	-	<0.5	1.2	<0.5	1.8	2.1	<0.5	<0.5	1.1	1.6	1.0	1.4	0.6	12.3	0.9	2.2	<0.5	-	-	-	<0.5	0.6	2.4	0.9	<10	<50	<50	400	120	1,050
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	5.9	<0.5	8.4	8.4	0.7	2.4	6.1	8.4	4.3	7.0	2.3	70.0	5.5	13.1	0.6	-	-	-	<0.5	2.8	12.2	7.1	<10	<50	<50	600	210	1,220
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	2,890	1,360	2,340
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	2,210	1,050	4,160
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.5	0.6	0.6	1.7	<0.5	2.5	2.7	<0.5	1.3	1.7	2.2	0.9	1.8	0.7	29.3	1.6	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	6.0	6.1	<10	<50	<50	450	150	740
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	-	<0.5	1.9	-	2.7	3.0	<0.5	0.7	1.8	2.5	1.1	2.2	0.8	22.0	1.7	4.2	<0.5	-	-	-	<0.5	0.8	4.2	2.6	<10	<50	<50	190	<100	300
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	2.6	<0.8	1.7	<0.8	-	-	-	<0.8	<0.8	0.9	<0.8	<10	<50	-	330	-	490
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	<0.5	-	<0.5	4.1	<0.5	5.6	5.8	0.9	1.1	3.8	5.3	2.3	4.5	1.6	42.1	3.6	7.8	<0.5	-	-	-	<0.5	1.8	8.0	2.6	<10	<50	<50	280	<100	380
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<110	3,600	920	3,220
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<1.0	-	<1.0	<1.0	-	1.2	2.4	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	1.2	<1.0	<10	<60	-	430	-	1,390
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	3.1	<0.5	1.0	<0.5	-	-	-	<0.5	<0.5	1.0	0.6	<10	<50	-	<100	-	140
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	990	180	1,660
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	2.6	<0.5	3.6	3.9	0.5	0.7	2.6	3.4	1.0	3.1	1.0	29.9	2.4	5.7	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	5.7	3.7	<10	<50	-	110	-	<100
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	0.9	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	0.9	<0.8	<10	<50	-	260	-	750
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<10	<50	-	<100	-	<100
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	1.6	<0.5	2.4	2.6	<0.5	0.6	1.7	2.1	0.7	1.8	0.7	19.1	1.6	3.8	<0.5	-	-	-	<0.5	0.6	3.8	2.2	<10	<50	-	<100	-	<100
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<10	<50	-	<100	-	<100
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	3.7	<0.5	5.0	5.2	<0.5	1.0	3.5	4.7	1.2	3.8	1.4	37.1	3.2	7.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	7.3	3.3	<10	<50	<50	280	<100	250
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	530	150	950
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	1.3	<0.8	1.3	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	-	100	-	160
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<50	-	180	-	180
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<1	-	<0.5	0.7	<0.5	1.1	1.4	<0.5	<0.5	0.6	0.8	<0.5	0.7	<0.5	6.8	0.6	1.6	<0.5	-	-	-	<0.5	<0.5	1.6	1.0	<10	<50	<50	690	210	450
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.5	<0.5	<0.5	3.8	<0.5	5.2	5.4	0.8	1.6	3.8	4.9	2.0	4.0	1.4	48.8	3.6	8.9	<0.5	<0.5	<0.5	<0.5	0.6	1.7	9.3	7.3	<10	<50	-	440	-	330
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	<0.5	-	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	0.5	0.8	<0.5	2.1	0.8	<0.5	<0.5	-	-	-	<0.5	<0.5	1.9	0.5	<10	<50	-	690	-	550
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	-	<0.5	<0.5	-	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	0.7	<0.5	-	-	-	<0.5	<0.5	0.7	<0.5	<10	<50	-	140	-	100
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	<50	390	<100	630
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	<0.8	-	<0.8	<0.8	-	1.0	1.9	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	<0.5	<0.8	<0.8	<0.8	-	-	-	<0.8	<0.8	<0.8	<0.8	<10	<50	-	290	-	480
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	2.4	<0.5	3.3	3.5	<0.5	1.2	1.9	3.0	1.5	2.1	0.8	24.4	1.8	4.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	4.3	2.9	<10	<50	<50	580	220	1,140
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	<1	-	<2.0	<2.0	-	2.4	4.8	<2.0	<2.0	<2.0	<0.5	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	-	-	-	<2.0	<2.0	<2.0	<2.0	<10	<110	<60	3,550	1,020	3,180
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<110	-	5,450	-	4,350
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	<1.0	-	<1.0	<1.0	-	1.2	2.4	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<10	<60	-	350	-	770

Location Code	Field ID	Date	Depth	Material				TRH										
					TPH C29-C36 Fraction after Silica Cleanup	+C10-C36 (Sum of total)	TRH C10-C36 (Total) (after silica gel clean-up)	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	TRH >C10-C16 (after silica gel clean-up)	C10-C16 (F2 minus Naphthalene)	C16-C34	TRH >C16-C34 (after silica gel clean-up)	C34-C40	TRH >C34-C40 (after silica gel clean-up)	C10-C40 (Sum of total)	>C10 - C40 Fraction (sum) (silica gel clean-up)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					100	50	50	10	10	50	50	50	100	100	100	100	50	50
NSW 2014 Excavated Natural Material (Absolute Max)						500												
NSW 2014 Excavated Natural Material (Max Average)						250												
NSW 2014 General Solid Waste SCC1 (with leached)						10,000												
NSW 2014 General Solid Waste TCLP1 (leached)																		
NSW 2014 Restricted Solid Waste SCC2 (with leached)						40,000												
NSW 2014 Restricted Solid Waste TCLP2 (leached)																		
BH01	BH01_0.1_191127	27/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH01_0.5_191127	27/11/2019	0.5	Fill	-	100	-	<10	<10	<50	-	<50	140	-	<100	-	140	-
	BH01_1.0_191127	27/11/2019	1	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	27/11/2019	2.5	Natural	1,800	11,700	5,510	<10	<10	<110	<110	<110	11,100	5,460	640	<110	11,700	5,460
BH02	BH02_0.1_191127	27/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH02_0.5_191127	27/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH02_1.5	29/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	27/11/2019	2.5	Natural	1,580	8,520	4,360	<10	<10	<110	<110	<110	7,950	4,320	680	<110	8,630	4,320
	QC100_191127	27/11/2019	2.5	Natural	-	4,550	-	<10	<10	<110	-	<110	4,110	-	670	-	4,780	-
BH03	BH03_0.5_191127	27/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH03_1.5_191127	27/11/2019	1.5	Natural	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH03_2.5_191127	27/11/2019	2.5	Natural	-	2,440	-	<10	<10	<110	-	<110	2,180	-	370	-	2,550	-
BH04	BH04_0.1_191127	27/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH04_0.5_191127	27/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH04_1.5_191127	27/11/2019	1.5	Natural	-	190	-	<10	<10	<50	-	<50	180	-	160	-	340	-
BH05	BH05_0.1_191127	27/11/2019	0.1	Fill	-	120	-	<10	<10	<50	-	<50	180	-	<100	-	180	-
	BH05_0.9_191127	27/11/2019	0.9	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH05_1.2_191127	27/11/2019	1.2	Natural	<220	1,380	<220	<10	<10	<110	<110	<110	1,090	<110	500	<110	1,590	<110
BH06	BH06_0.1_191127	27/11/2019	0.1	Fill	-	300	-	<10	<10	<50	-	<50	180	-	180	-	360	-
	BH06_0.5_191127	27/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH06_2.2_191127	27/11/2019	2.2	Natural	850	4,120	1,510	<10	<10	<110	<110	<110	3,430	1,510	840	<110	4,270	1,510
BH07	BH07_0.1_191127	27/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH07_0.9_191127	27/11/2019	0.9	Natural	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH07_1.1_191127	27/11/2019	1.1	Natural	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
BH08	BH08_0.5_191127	27/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH08_1.1_191127	27/11/2019	1.1	Natural	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH08_2.0_191127	27/11/2019	2	Natural	440	5,180	960	<10	<10	<110	<110	<110	4,750	980	590	<110	5,340	980
BH09	BH09_0.1_191127	27/11/2019	0.1	Fill	-	110	-	<10	<10	<50	-	<50	150	-	100	-	250	-
	BH09_0.5_191127	27/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH09_1.0_191127	27/11/2019	1	Natural	-	120	-	<10	<10	<50	-	<50	120	-	<100	-	120	-
	QC101_191127	27/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	120	-	<100	-	120	-
BH10	BH10_0.1_191128	28/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	100	-	<100	-	100	-
	BH10_1.0_191128	28/11/2019	1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH10_2.5_191128	28/11/2019	2.5	Fill	-	1,780	-	<10	<10	<110	-	<110	1,490	-	500	-	1,990	-
BH12	BH12_0.1_191128	28/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH12_1.5_191128	28/11/2019	1.5	Fill	<100	790	<100	<10	<10	<50	<50	<50	540	<100	500	<100	1,040	<100
	BH12_2.5_191128	28/11/2019	2.5	Natural	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
BH13	BH13_0.3_191128	29/11/2019	0.3	Fill	310	1,450	430	<10	<10	<50	<50	<50	950	280	1,560	450	2,510	730
	BH13_0.5_191128	28/11/2019	0.5	Fill	420	1,820	630	<10	<10	<50	<50	<50	1,340	480	1,280	430	2,620	910
	BH13_1.5_191128	28/11/2019	1.5	Natural	840	5,230	2,200	<10	<10	<110	<110	<110		2,100	1,040	<110	5,620	2,100
	BH13_2.5_191128	28/11/2019	2.5	Natural	2,760	6,370	3,810	<10	<10	<110	<110	<110	5,890	3,840	540	<110	6,430	3,840
BH14	BH14_0.3_191128	28/11/2019	0.3	Fill	310	1,190	460	<10	<10	<50	<50	<50	880	330	810	380	1,690	710
	BH14_1.0_191128	28/11/2019	1	Fill	130	490	130	<10	<10	<50	<50	<50	370	160	280	110	650	270
	BH14_3.0_191128	28/11/2019	3	Natural	-	820	-	<10	<10	<50	-	<50	640	-	340	-	980	-
BH15	BH15_0.2_181128	28/11/2019	0.2	Fill	160	660	160	<10	<10	<50	<50	<50	520	190	350	180	870	370
	BH15_1.5_191128	28/11/2019	1.5	Natural	750	6,820	1,670	<10	<10	<110	<110	<110	6,080	1,680	820	<110	6,900	1,680
	BH15_2.5_191128	28/11/2019	2.5	Natural	-	1,820	-	<10	<10	<60	-	<60	1,220	-	1,430	-	2,650	-
BH16	BH16_0.1_191128	28/11/2019	0.1	Fill	-	140	-	<10	<10	<50	-	<50	120	-	170	-	290	-
	BH16_0.9_191128	28/11/2019	0.9	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH16_1.7_191128	28/11/2019	1.7	Natural	590	2,650	770	<10	<10	60	<50	60	2,050	640	1,100	370	3,210	1,010
BH17	BH17_0.1_191128	28/11/2019	0.1	Fill	-	110	-	<10	<10	<50	-	<50	160	-	<100	-	160	-
	BH17_0.5_191128	28/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH17_2.5_191128	28/11/2019	2.5	Natural	-	1,010	-	<10	<10	<50	-	<50	660	-	790	-	1,450	-
BH18	BH18_0.1_191129	29/11/2019	0.1	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH18_0.5_191129	29/11/2019	0.5	Fill	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
	BH18_2.8_191129	29/11/2019	2.8	Natural	-	<50	-	<10	<10	<50	-	<50	<100	-	<100	-	<50	-
BH19	BH19_0.5_191129	29/11/2019	0.5	Fill	<100	530	<100	<10	<10	<50	<50	<50	450	140	160	100	610	240
	BH19_1.5_191129	29/11/2019	1.5	Natural	130	1,480	280	<10	<10	<50	<50	<50	1,110	270	820	<100	1,930	270
	BH19_2.5_191129	29/11/2019	2.5	Natural	-	260	-	<10	<10	<50	-	<50	200	-	<100	-	200	-
	QC102_191129	29/11/2019	0.5	Fill	-	360	-	<10	<10	<50	-	<50	280	-	130	-	410	-
MW11	MW11_0.5_191128	28/11/2019	0.5	Fill	120	1,140	330	<10	<10	<50	<50	<50	970	290	280	100	1,250	390
	MW11_3.5_191128	28/11/2019	3.5	Natural	-	770	-	<10	<10	<50	-	<50	700	-	100	-	800	-
	MW11_5.0_191128	28/11/2019	5	Natural	-	1,240	-	<10	<10	<50	-	<50	1,080	-	280	-	1,360	-
MW20	MW20_0.5_191129	29/11/2019	0.5	Fill	-	240	-	103	103	<50	-	<50	180	-	<100	-	180	-
	MW20_1.8_191129	29/11/2019	1.8	Natural	<100	1,020	<100	<10	<10	<50	<50	<50	800	<100	450	<100	1,250	<100
	MW20_4.0_191129	29/11/2019	4	Natural	-	770	-	<10	<10	<50	-	<50	590	-	350	-	940	-
MW21	MW21_0.3_191129	29/11/2019	0.3	Fill	410	1,720	630	<10	<10	<50	<50	<50	1,280	510	1,090	330	2,370	840
	MW21_1.3_191129	29/11/2019	1.3	Natural	760	6,730	1,780	<10	<10	<110	<60	<110	6,040	1,760	1,090	<100	7,130	1,760
	QC103_191129	29/11/2019	1.3	Natural	-	9,800	-	<10	<10	<110	-	<110	9,020	-	1,060	-	10,100	-
	MW21_4.4_191129	29/11/2019	4.4	Natural	-	1,120	-	<10	<10	<60	-	<60	810	-	640	-	1,450	-

Field ID	BTEX							Phenols								
	Benzene	Ethylbenzene	Toluene	Total BTEX	Xylene (m & p)	Xylene (o)	Xylene Total	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Nitrophenol	2-Methylphenol	3&4-Methylphenol (m&p-cresol)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.2	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
NSW 2014 Excavated Natural Material (Absolute Max)	0.5	25	65				15									
NSW 2014 Excavated Natural Material (Max Average)																
NSW 2014 General Solid Waste SCC1 (with leached)	18	1,080	518				1,800	14,400	72						7,200	
NSW 2014 General Solid Waste TCLP1 (leached)																
NSW 2014 Restricted Solid Waste SCC2 (with leached)	72	4,320	2,073				7,200	57,600	288						28,800	
NSW 2014 Restricted Solid Waste TCLP2 (leached)																
BH01_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH01_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH01_1.0_191127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH01_2.5_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH02_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH02_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH02_1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_2.5_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
QC100_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
BH03_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH03_1.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH03_2.5_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH04_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH04_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH04_1.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH05_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH05_0.9_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH05_1.2_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH06_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH06_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH06_2.2_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH07_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH07_0.9_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH07_1.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH08_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH08_1.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH08_2.0_191127	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH09_0.1_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH09_0.5_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH09_1.0_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
QC101_191127	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
BH10_0.1_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH10_1.0_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH10_2.5_191128	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH12_0.1_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH12_1.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
BH12_2.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH13_0.3_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH13_0.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH13_1.5_191128	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH13_2.5_191128	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH14_0.3_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH14_1.0_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH14_3.0_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
BH15_0.2_181128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH15_1.5_191128	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
BH15_2.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2
BH16_0.1_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH16_0.9_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH16_1.7_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
BH17_0.1_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH17_0.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH17_2.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
BH18_0.1_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH18_0.5_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH18_2.8_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH19_0.5_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
BH19_1.5_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
BH19_2.5_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
QC102_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW11_0.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW11_3.5_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW11_5.0_191128	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW20_0.5_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW20_1.8_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
MW20_4.0_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<2
MW21_0.3_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1
MW21_1.3_191129	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4
QC103_191129	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
MW21_4.4_191129	<0.2	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2

					Amino Aliphatics				Amino Aromatics		Anilines						PCBs	VOCs			SVOCs										
					Pentachlorophenol	4-chloro-3-methylphenol	Phenol	N-nitrosodiethylamine	N-Nitrosomethylethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosodiphenyl & Diphenylamine	1-naphthylamine	2-methyl-5-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-nitroaniline	Aniline	PCBs (Sum of total)	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	2-(acetylamino) fluorene	4-Nitroquinoline-N-oxide	Azobenzene	Bis(2-chloroethyl)ether	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopyrrolidine	Phenacetin	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	Dibenzofuran
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					2	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	1	0.5	0.5	1	0.5	0.1	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5
NSW 2014 Excavated Natural Material (Absolute Max)																																	
NSW 2014 Excavated Natural Material (Max Average)																																	
NSW 2014 General Solid Waste SCC1 (with leached)							518													50													
NSW 2014 General Solid Waste TCLP1 (leached)																																	
NSW 2014 Restricted Solid Waste SCC2 (with leached)							2,073													50													
NSW 2014 Restricted Solid Waste TCLP2 (leached)																																	
Location Code	**Field ID**	**Date**	**Depth**	**Material**																													
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	0.7
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<2	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<2	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	<2	<0.8	<0.8	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	<4	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	<2	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

									Chlorinated Hydrocarbons																										
					4-chlorophenyl phenyl ether	4-bromophenyl phenyl ether	Bis(2-chloroethoxy) methane	N-nitrosopiperidine	Hexachlorocyclopentadiene	Hexachloroethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	2,2-dichloropropane	1,3-dichloropropane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chloroethane	Chlorodibromomethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Tetrachloroethene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	2.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5
NSW 2014 Excavated Natural Material (Absolute Max)																																			
NSW 2014 Excavated Natural Material (Max Average)																																			
NSW 2014 General Solid Waste SCC1 (with leached)											360	1,080	46.8	43.2		25				18						18			216						25.2
NSW 2014 General Solid Waste TCLP1 (leached)																																			
NSW 2014 Restricted Solid Waste SCC2 (with leached)											1,440	4,320	187	173		100				72						72			864						101
NSW 2014 Restricted Solid Waste TCLP2 (leached)																																			
Location Code	**Field ID**	**Date**	**Depth**	**Material**																															
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					Halogenated Benzenes											Halogenated Hydrocarbons					Herbicides	Nitroaromatics			Pesticides					
					trans-1,3-dichloropropene	trans-1,2-dichloroethene	Trichloroethene	Vinyl chloride	Hexachlorobenzene	Pentachlorobenzene	2-chlorotoluene	1,2,4-trichlorobenzene	1,2,3-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	4-chlorotoluene	Bromobenzene	Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Pronamide	2-Picoline	4-aminobiphenyl	Pentachloronitrobenzene	Carbazole	Chlorobenzilate	Demeton-S-methyl	Fenamiphos	Parathion	Pirimphos-ethyl	Endosulfan
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	5	0.05	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.2	0.05	0.05
NSW 2014 Excavated Natural Material (Absolute Max)																																		
NSW 2014 Excavated Natural Material (Max Average)																																		
NSW 2014 General Solid Waste SCC1 (with leached)							18	7.2						155		270			3,600														108
NSW 2014 General Solid Waste TCLP1 (leached)																																		
NSW 2014 Restricted Solid Waste SCC2 (with leached)							72	28.8						620		1,080			14,400														432
NSW 2014 Restricted Solid Waste TCLP2 (leached)																																		
Location Code	**Field ID**	**Date**	**Depth**	**Material**																														
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	<0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	<0.25	<1.0	<0.25	<0.15
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.25	<0.25	<1.0	<0.25	<0.15
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.06	<0.06	<0.3	<0.06	<0.05
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	-	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.2	<0.05	<0.05
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.5	<0.5	<0.5	<5	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.2	<0.05	<0.05
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.12	<0.12	<0.5	<0.12	<0.07
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	-	-	-	-	<0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.06	<0.06	<0.3	<0.06	<0.05

Location Code	Field ID	Date	Depth	Material	Organochlorine Pesticides																							Organophosphorous F							
					Chlordane (cis)	Chlordane (trans)	4,4-DDE	a-BHC	Aldrin	b-BHC	d-BHC	DDD	DDT	Dieldrin	Endosulfan I	Endosulfan II	DDT+DDE+DDD	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Endrin aldehyde	Heptachlor	Endrin ketone	Heptachlor epoxide	Methoxychlor	chlordane	Aldrin + Dieldrin	Bromophos-ethyl	Azinophos methyl	Chlorpyrifos-methyl	Chlorpyrifos	Diazinon	Dichlorvos	Ethion	Dimethoate
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
NSW 2014 Excavated Natural Material (Absolute Max)																																			
NSW 2014 Excavated Natural Material (Max Average)																																			
NSW 2014 General Solid Waste SCC1 (with leached)																															7.5				
NSW 2014 General Solid Waste TCLP1 (leached)																																			
NSW 2014 Restricted Solid Waste SCC2 (with leached)																															30				
NSW 2014 Restricted Solid Waste TCLP2 (leached)																																			
BH01	BH01_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH01_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH01_1.0_191127	27/11/2019	1	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	27/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH02	BH02_0.1_191127	27/11/2019	0.1	Fill	0.13	0.78	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	0.54	<0.2	0.91	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH02_0.5_191127	27/11/2019	0.5	Fill	0.06	0.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.27	<0.2	0.39	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH02_1.5	29/11/2019	1.5	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_2.5_191127	27/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	QC100_191127	27/11/2019	2.5	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	BH03_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH03_1.5_191127	27/11/2019	1.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH03_2.5_191127	27/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH04	BH04_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH04_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH04_1.5_191127	27/11/2019	1.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH05	BH05_0.1_191127	27/11/2019	0.1	Fill	0.08	0.58	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.20	<0.05	0.24	<0.2	0.66	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH05_0.9_191127	27/11/2019	0.9	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH05_1.2_191127	27/11/2019	1.2	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH06	BH06_0.1_191127	27/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH06_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.2	1.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	1.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH06_2.2_191127	27/11/2019	2.2	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH07	BH07_0.1_191127	27/11/2019	0.1	Fill	0.30	1.37	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.64	<0.05	0.64	<0.2	1.67	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH07_0.9_191127	27/11/2019	0.9	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH07_1.1_191127	27/11/2019	1.1	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH08	BH08_0.5_191127	27/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH08_1.1_191127	27/11/2019	1.1	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH08_2.0_191127	27/11/2019	2	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH09	BH09_0.1_191127	27/11/2019	0.1	Fill	0.06	0.52	<0.05	<0.05	0.18	<0.05	<0.05	<0.05	<0.2	1.59	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	0.20	<0.2	0.58	1.77	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH09_0.5_191127	27/11/2019	0.5	Fill	0.16	1.44	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.2	0.58	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.18	<0.05	0.51	<0.2	1.60	0.64	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH09_1.0_191127	27/11/2019	1	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	QC101_191127	27/11/2019	0.1	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	BH10_0.1_191128	28/11/2019	0.1	Fill	0.25	1.63	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.76	<0.05	0.82	<0.2	1.88	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH10_1.0_191128	28/11/2019	1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH10_2.5_191128	28/11/2019	2.5	Fill	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH12	BH12_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH12_1.5_191128	28/11/2019	1.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH12_2.5_191128	28/11/2019	2.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH13	BH13_0.3_191128	29/11/2019	0.3	Fill	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.25	<0.25	<0.25	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.08	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	BH13_0.5_191128	28/11/2019	0.5	Fill	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.25	<0.25	<0.25	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<0.08	<0.08	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	BH13_1.5_191128	28/11/2019	1.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	BH13_2.5_191128	28/11/2019	2.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
BH14	BH14_0.3_191128	28/11/2019	0.3	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH14_1.0_191128	28/11/2019	1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH14_3.0_191128	28/11/2019	3	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH15	BH15_0.2_181128	28/11/2019	0.2	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH15_1.5_191128	28/11/2019	1.5	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	BH15_2.5_191128	28/11/2019	2.5	Natural	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.06	<0.06	<0.06	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
BH16	BH16_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH16_0.9_191128	28/11/2019	0.9	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH16_1.7_191128	28/11/2019	1.7	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH17	BH17_0.1_191128	28/11/2019	0.1	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH17_0.5_191128	28/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH17_2.5_191128	28/11/2019	2.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH18	BH18_0.1_191129	29/11/2019	0.1	Fill	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH18_0.5_191129	29/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH18_2.8_191129	29/11/2019	2.8	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH19	BH19_0.5_191129	29/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH19_1.5_191129	29/11/2019	1.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	BH19_2.5_191129	29/11/2019	2.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	QC102_191129	29/11/2019	0.5	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	MW11_0.5_191128	28/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	MW11_3.5_191128	28/11/2019	3.5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	MW11_5.0_191128	28/11/2019	5	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW20	MW20_0.5_191129	29/11/2019	0.5	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	MW20_1.8_191129	29/11/2019	1.8	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	MW20_4.0_191129	29/11/2019	4	Natural	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW21	MW21_0.3_191129	29/11/2019	0.3	Fill	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	MW21_1.3_191129	29/11/2019	1.3	Natural	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.12	<0.12	<0.12	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.05	<0.05	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
	QC103_191129	29/11/2019	1.3	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	29/11/2019	4.4	Natural	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.06	<0.06	<0.06	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06

					esticides							Explosives				Phthalates						Solvents						Other								
					Carbophenothion	Malathion	Prothiofos	Chlorfenvinphos	Fenthion	Methyl parathion	Monocrotophos	1,3,5-Trinitrobenzene	Nitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Butyl benzyl phthalate	Bis(2-ethyhexyl) phthalate	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Isophorone	2-hexanone (MBK)	4-Methyl-2-pentanone	Vinyl acetate	Carbon disulfide	Methyl Ethyl Ketone	Acetophenone	Acid Reacted Calcium	Acid Reacted Magnesium	acidity - Acid Reacted Calcium	acidity - Acid Reacted Magnesium	acidity - Excess Acid Neutralising Capacity	acidity - Peroxide Oxidisable Sulfur	ANC Fineness Factor
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	mole H+/t	mole H+/t	mole H+/t	mole H+/t	-
EQL					0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.5	0.5	1	1	0.5	5	0.5	0.5	0.5	0.5	0.5	5	5	5	0.5	5	0.5	0.02	0.02	10	10	10	10	0.5
NSW 2014 Excavated Natural Material (Absolute Max)																																			
NSW 2014 Excavated Natural Material (Max Average)																																			
NSW 2014 General Solid Waste SCC1 (with leached)													72	4.68													7,200								
NSW 2014 General Solid Waste TCLP1 (leached)																																			
NSW 2014 Restricted Solid Waste SCC2 (with leached)													288	18.7													28,800								
NSW 2014 Restricted Solid Waste TCLP2 (leached)																																			
Location Code	**Field ID**	**Date**	**Depth**	**Material**																															
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	0.409	<0.020	204	<10	275	<10	1.5
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.058	<0.020	29	<10	-	1,630	1.5
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.037	0.022	19	18	-	43	1.5
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	951	1.5
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	<0.020	0.056	<10	46	-	573	1.5
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	105	1.5
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	958	1.5
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	0.042	<0.020	21	<10	-	28	1.5
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	1,030	1.5
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.044	0.021	22	17	-	666	1.5
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	<0.020	<0.020	<10	<10	-	33	1.5
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	97	1.5
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.12	<0.020	560	<10	656	16	1.5
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.062	<0.020	31	<10	164	12	1.5
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.047	<0.020	24	11	-	1,200	1.5
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.516	0.044	258	36	-	1,490	1.5
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	<10	1.5
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.25	<0.25	<0.25	<0.25	<0.25	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.081	0.034	40	28	-	1,360	1.5
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	1.31	0.080	653	66	706	30	1.5
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.081	0.066	40	54	-	418	1.5
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	1,230	1.5
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	1,110	1.5
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.138	<0.020	69	<10	-	1,530	1.5
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	<10	1.5
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	12	-	352	1.5
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	21	1.5
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.367	0.028	183	23	-	1,470	1.5
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	187	1.5
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	<0.020	<0.020	<10	<10	-	58	1.5
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	<0.020	<10	<10	-	28	1.5
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	0.021	<10	17	-	1,040	1.5
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.020	0.023	<10	19	-	277	1.5
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.5	<0.5	<1.0	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<5	<0.5	-	-	-	-	-	-	-	-
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	<0.12	<0.12	<0.12	<0.12	<0.12	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	<0.06	<0.06	<0.06	<0.06	<0.06	<0.3	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.048	0.045	24	37	-	2,110	1.5

					SPOCAS																								
					Calcium in Peroxide	HCl Extractable Sulfur	Excess Acid Neutralising Capacity	s-Net Acidity without ANCE	KCl Extractable Calcium	KCl Extractable Magnesium	KCl Extractable Sulfur	Liming Rate	Magnesium in Peroxide	Liming rate without ANCE	Net Acid Soluble Sulfur	Net Acidity (acidity units)	Peroxide Oxidisable Sulfur	Net Acidity (sulfur units)	pH (KCl)	pH (Ox)	s-Net Acidity without ANCE	sulfidic - Acid Reacted Calcium	sulfidic - Acid Reacted Magnesium	sulfidic - Excess Acid Neutralising Capacity	sulfidic - Titratable Actual Acidity	sulfidic - Titratable Peroxide Acidity	Sulfur in Peroxide	sulfidic - Titratable Sulfidic Acidity	Titratable Actual Acidity	Titratable Peroxide Acidity	Titratable Sulfidic Acidity
					%	%S	% CaCO3	moles H+/t	%	%	%	kg CaCO3/t	%	kg CaCO3/t	%S	mole H+/t	%	%S	-	-	% S	% S	%S	%S	%S	%S	%S	%S	%S	mole H+/t	mole H+/t	mole H+/t
EQL					0.02	0.02		10	0.02	0.02	0.02	1	0.02	1	0.02	10	0.02	0.02	0.1	0.1			0.02	0.02	0.02	0.02	0.02	0.02	2	2	2
NSW 2014 Excavated Natural Material (Absolute Max)																															
NSW 2014 Excavated Natural Material (Max Average)																															
NSW 2014 General Solid Waste SCC1 (with leached)																															
NSW 2014 General Solid Waste TCLP1 (leached)																															
NSW 2014 Restricted Solid Waste SCC2 (with leached)																															
NSW 2014 Restricted Solid Waste TCLP2 (leached)																															
Location Code	**Field ID**	**Date**	**Depth**	**Material**																											
BH01	**BH01_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_0.5_191127	**27/11/2019**	**0.5**	**Fill**	0.612	-	1.38	<10	0.203	<0.020	<0.020	<1	<0.020	<1	-	<10	<0.020	<0.02	9.1	7.6	<0.02	0.328	<0.020	0.441	<0.020	<0.020	<0.020	<0.020	<2	<2	<2
	BH01_1.0_191127	**27/11/2019**	**1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01_2.5_191127	**27/11/2019**	**2.5**	**Natural**	0.421	-	-	1,800	0.363	0.223	0.060	135	0.223	135	-	1,800	2.61	2.88	4.5	1.6	2.88	0.046	<0.020	-	0.274	11.1	2.67	10.9	171	6,940	6,770
BH02	**BH02_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02_1.5	**29/11/2019**	**1.5**	**Natural**	0.192	-	-	61	0.155	<0.020	0.030	4	0.022	4	-	61	0.070	0.10	5.3	3.1	0.10	0.030	0.030	-	0.028	0.156	0.100	0.128	18	98	80
	BH02_2.5_191127	**27/11/2019**	**2.5**	**Natural**	0.310	-	-	1,150	0.525	0.212	0.036	86	0.142	86	-	1,150	1.52	1.84	4.5	1.8	1.84	<0.020	<0.020	-	0.319	8.63	1.56	8.31	199	5,380	5,180
	QC100_191127	**27/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03	**BH03_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_1.5_191127	**27/11/2019**	**1.5**	**Natural**	0.530	-	-	578	0.876	0.050	<0.020	43	0.106	43	-	578	0.919	0.93	6.3	2.4	0.93	<0.020	0.074	-	<0.020	1.19	0.919	1.18	5	743	738
	BH03_2.5_191127	**27/11/2019**	**2.5**	**Natural**	0.062	-	-	176	0.062	0.102	<0.020	13	0.102	13	-	176	0.168	0.28	4.5	2.7	0.28	<0.020	<0.020	-	0.113	0.932	0.168	0.819	70	581	511
BH04	**BH04_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_1.5_191127	**27/11/2019**	**1.5**	**Natural**	0.596	<0.020	-	1,270	0.640	0.289	0.036	95	0.289	95	<0.020	1,270	1.54	2.04	4.3	1.8	2.04	<0.020	<0.020	-	0.500	7.58	1.57	7.08	312	4,730	4,420
BH05	**BH05_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_0.9_191127	**27/11/2019**	**0.9**	**Fill**	0.267	-	-	28	0.225	<0.020	<0.020	<1	<0.020	2	-	<10	0.045	<0.02	6.8	3.8	0.04	0.034	<0.020	-	<0.020	<0.020	0.045	<0.020	<2	<2	<2
	BH05_1.2_191127	**27/11/2019**	**1.2**	**Natural**	0.917	-	-	1,140	1.92	0.225	0.073	85	0.237	85	-	1,140	1.65	1.82	5.2	2.0	1.82	<0.020	<0.020	-	0.174	9.67	1.72	9.50	108	6,030	5,920
BH06	**BH06_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_2.2_191127	**27/11/2019**	**2.2**	**Natural**	0.128	0.029	-	887	0.084	0.142	0.023	66	0.163	66	<0.020	887	1.07	1.42	4.1	2.0	1.42	0.035	0.027	-	0.350	4.84	1.09	4.49	218	3,020	2,800
BH07	**BH07_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH07_0.9_191127	**27/11/2019**	**0.9**	**Natural**	0.209	-	-	33	0.251	<0.020	<0.020	2	<0.020	2	-	33	0.053	0.05	6.3	5.4	0.05	<0.020	<0.020	-	<0.020	<0.020	0.053	<0.020	<2	<2	<2
	BH07_1.1_191127	**27/11/2019**	**1.1**	**Natural**	0.228	-	-	105	0.227	<0.020	<0.020	8	<0.020	8	-	105	0.156	0.17	5.7	2.5	0.17	<0.020	<0.020	-	<0.020	0.511	0.156	0.498	8	319	311
BH08	**BH08_0.5_191127**	**27/11/2019**	**0.5**	**Fill**	1.39	-	3.28	16	0.271	<0.020	<0.020	<1	<0.020	1	-	<10	0.026	<0.02	10.6	7.6	0.02	0.897	<0.020	1.05	<0.020	<0.020	0.026	<0.020	<2	<2	<2
	BH08_1.1_191127	**27/11/2019**	**1.1**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH08_2.0_191127	**27/11/2019**	**2**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09	**BH09_0.1_191127**	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_0.5_191127	**27/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_1.0_191127	**27/11/2019**	**1**	**Natural**	0.277	-	0.820	12	0.214	<0.020	<0.020	<1	<0.020	<1	-	<10	0.020	<0.02	7.0	7.3	0.02	0.050	<0.020	0.262	<0.020	<0.020	0.020	<0.020	<2	<2	<2
	QC101_191127	**27/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH10	**BH10_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH10_2.5_191128	**28/11/2019**	**2.5**	**Fill**	0.159	0.035	-	1,420	0.112	0.144	0.027	107	0.158	107	<0.020	1,420	1.93	2.28	4.1	1.7	2.28	0.038	<0.020	-	0.344	10.6	1.96	10.3	214	6,630	6,420
BH12	**BH12_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_1.5_191128	**28/11/2019**	**1.5**	**Fill**	1.40	0.113	-	1,870	0.882	0.130	0.231	141	0.174	141	<0.020	1,870	2.39	3.00	3.8	1.7	3.00	0.413	0.058	-	0.701	11.7	2.62	11.0	437	7,310	6,870
	BH12_2.5_191128	**28/11/2019**	**2.5**	**Natural**	<0.020	-	-	<10	<0.020	<0.020	<0.020	<1	<0.020	<1	-	<10	<0.020	<0.02	5.7	3.8	<0.02	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020	<2	<2	<2
BH13	**BH13_0.3_191128**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_0.5_191128	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_1.5_191128	**28/11/2019**	**1.5**	**Natural**	0.355	0.046	-	1,690	0.274	0.307	0.059	127	0.341	127	<0.020	1,690	2.18	2.70	4.0	1.5	2.70	0.065	0.044	-	0.532	12.9	2.24	12.4	332	8,040	7,710
	BH13_2.5_191128	**28/11/2019**	**2.5**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14	**BH14_0.3_191128**	**28/11/2019**	**0.3**	**Fill**	1.67	-	3.54	30	0.365	<0.020	0.024	<1	0.080	2	-	<10	0.048	<0.02	10.9	8.4	0.05	1.05	0.106	1.13	<0.020	<0.020	0.072	<0.020	<2	<2	<2
	BH14_1.0_191128	**28/11/2019**	**1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14_3.0_191128	**28/11/2019**	**3**	**Natural**	0.168	-	-	519	0.087	0.070	<0.020	39	0.136	39	-	519	0.669	0.83	4.6	2.0	0.83	0.065	0.087	-	0.163	2.81	0.669	2.65	102	1,750	1,650
BH15	**BH15_0.2_181128**	**28/11/2019**	**0.2**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15_1.5_191128	**28/11/2019**	**1.5**	**Natural**	0.681	-	-	1,320	0.821	0.068	0.038	99	0.053	99	-	1,320	1.98	2.11	5.0	1.8	2.11	<0.020	<0.020	-	0.128	9.18	2.02	9.05	80	5,720	5,640
	BH15_2.5_191128	**28/11/2019**	**2.5**	**Natural**	0.116	0.023	-	1,280	0.109	0.173	0.023	96	0.180	96	<0.020	1,280	1.78	2.05	4.1	1.8	2.05	<0.020	<0.020	-	0.274	8.26	1.80	7.99	171	5,160	4,980
BH16	**BH16_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_0.9_191128	**28/11/2019**	**0.9**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_1.7_191128	**28/11/2019**	**1.7**	**Natural**	0.810	0.131	-	1,860	0.672	0.127	0.155	140	0.136	140	<0.020	1,860	2.46	2.99	3.7	1.6	2.99	0.110	<0.020	-	0.548	12.3	2.61	11.7	342	7,660	7,320
BH17	**BH17_0.1_191128**	**28/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_0.5_191128	**28/11/2019**	**0.5**	**Fill**	0.060	-	-	<10	0.053	<0.020	<0.020	<1	<0.020	<1	-	<10	<0.020	<0.02	7.4	6.3	<0.02	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020	<2	<2	<2
	BH17_2.5_191128	**28/11/2019**	**2.5**	**Natural**	0.062	-	-	377	0.054	0.091	<0.020	28	0.106	28	-	377	0.564	0.60	4.6	2.1	0.60	<0.020	<0.020	-	0.041	1.88	0.564	1.84	26	1,180	1,150
BH18	**BH18_0.1_191129**	**29/11/2019**	**0.1**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_0.5_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18_2.8_191129	**29/11/2019**	**2.8**	**Natural**	<0.020	-	-	21	<0.020	<0.020	<0.020	2	<0.020	2	-	21	0.034	0.03	5.7	3.2	0.03	<0.020	<0.020	-	<0.020	<0.020	0.034	<0.020	<2	<2	<2
BH19	**BH19_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH19_1.5_191129	**29/11/2019**	**1.5**	**Natural**	1.43	-	-	1,610	1.06	0.108	0.058	120	0.136	120	-	1,610	2.36	2.58	4.9	1.7	2.58	0.294	0.036	-	0.220	11.4	2.41	11.2	137	7,140	7,000
	BH19_2.5_191129	**29/11/2019**	**2.5**	**Natural**	0.049	<0.020	-	243	0.048	0.103	<0.020	18	0.103	18	<0.020	243	0.299	0.39	4.4	2.4	0.39	<0.020	<0.020	-	0.091	1.40	0.299	1.31	56	875	818
	QC102_191129	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11	**MW11_0.5_191128**	**28/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW11_3.5_191128	**28/11/2019**	**3.5**	**Natural**	0.068	-	-	68	0.068	<0.020	<0.020	5	<0.020	5	-	68	0.094	0.11	5.1	2.6	0.11	<0.020	<0.020	-	<0.020	0.317	0.094	0.301	10	198	188
	MW11_5.0_191128	**28/11/2019**	**5**	**Natural**	0.034	-	-	34	0.034	<0.020	<0.020	2	<0.020	2	-	34	0.046	0.05	5.3	2.7	0.05	<0.020	<0.020	-	<0.020	0.160	0.046	0.152	5	100	95
MW20	**MW20_0.5_191129**	**29/11/2019**	**0.5**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW20_1.8_191129	**29/11/2019**	**1.8**	**Natural**	0.821	-	-	1,150	1.15	0.080	<0.020	86	0.101	86	-	1,150	1.67	1.84	5.2	2.0	1.84	<0.020	0.028	-	0.172	7.91	1.67	7.73	108	4,930	4,820
	MW20_4.0_191129	**29/11/2019**	**4**	**Natural**	0.320	-	-	299	0.312	0.088	<0.020	22	0.112	22	-	299	0.444	0.48	5.1	2.2	0.48	<0.020	0.030	-	0.035	1.41	0.444	1.37	22	879	857
MW21	**MW21_0.3_191129**	**29/11/2019**	**0.3**	**Fill**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_1.3_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	QC103_191129	**29/11/2019**	**1.3**	**Natural**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MW21_4.4_191129	**29/11/2019**	**4.4**	**Natural**	0.164	0.039	-	2,410	0.115	0.198	0.073	181	0.243	181	<0.020	2,410	3.38	3.87	4.0	1.5	3.87	0.038	0.059	-	0.511	8.81	3.45	8.30	319	5,500	5,180

			BTEX							Metals										
			Benzene	Ethylbenzene	Toluene	Total BTEX	Xylene (m & p)	Xylene (o)	Xylene Total	Arsenic (filtered)	Cadmium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Lead (filtered)	Mercury (filtered)	Nickel (filtered)	Zinc (filtered)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L
EQL			1	1	1	1	2	1	2	0.001	0.0001	0.001	0.001	0.001	0.0001	0.001	0.005	5	5	5
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800	NL	NL				NL											
4-8m			800	NL	NL				NL											
>=8m			900	NL	NL				NL											
ANZG (2018) Freshwater 95% toxicant DGVs			950					350			0.0002		0.0014	0.0034	0.00006	0.011	0.008			
ANZECC (2000) Primary Contact Recreational			10							0.05	0.005	0.05	1	0.05	0.001	0.1	5			
NEPM 2013 Table 1C GILs, Fresh Waters			950					350	550[#1]		0.0002[#2]		0.0014[#2]	0.0034[#2]	0.00006[#3]	0.011[#2]	0.008[#2]			
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<2	<2	<1	<2	<2	<2	<0.001	<0.0001	<0.001	0.001	0.001	<0.0001	<0.001	0.008	<5	<5	<5
	QC104_191218	**18/12/2019**	<1	<2	<2	<1	<2	<2	<2	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<2	<2	<1	<2	<2	<2	<0.001	<0.0001	0.002	0.002	0.003	<0.0001	0.002	0.017	<5	<5	<5
MW21	**MW21_191218**	**18/12/2019**	<1	<2	<2	<1	<2	<2	<2	0.010	<0.0001	0.002	<0.001	0.002	<0.0001	0.001	0.006	<5	<5	<5
	QC204_191218	**18/12/2019**	<1	<1	<1	-	<2	<1	-	<0.05	<0.01	<0.01	<0.01	<0.03	<0.0005	<0.02	<0.02	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/L)

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC & ARMCANZ (2000) for site specific hardness guidance

#3 Chemical for which possible bioaccumulation and secondary poisoning effects should be considered, refer to ANZECC & ARMCANZ (2000) for further guidance.

#4 Figure may not protect key species from chronic toxicity, refer to ANZECC & ARMCANZ (2000) for further guidance.

			MAH																		
			Benzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Naphthalene	2-methylnaphthalene	Benzo(b+j+k)fluoranthene	Acenaphthene	Benzo(a) pyrene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene TEQ calc (Zero)	Benzo(g,h,i)perylene	Benzo(b+j)fluoranthene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L
EQL			1	5	5	5	5	5	5	1	2	0.004	1	0.5	1	1	1	0.0005	1	1
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800							NL										
4-8m			800							NL										
>=8m			900							NL										
ANZG (2018) Freshwater 95% toxicant DGVs			950							16										
ANZECC (2000) Primary Contact Recreational			10											0.01						
NEPM 2013 Table 1C GILs, Fresh Waters			950							16										
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<5	<5	<5	<5	<5	<5	<1.0	<2	<0.004	<1.0	<0.5	<1.0	<1.0	<1.0	<0.0005	<1.0	<1.0
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<5	<5	<5	<5	<5	<5	<1.0	<2	<0.004	<1.0	<0.5	<1.0	<1.0	<1.0	<0.0005	<1.0	<1.0
MW21	**MW21_191218**	**18/12/2019**	<1	<5	<5	<5	<5	<5	<5	<1.0	<2	<0.004	<1.0	<0.5	<1.0	<1.0	<1.0	<0.0005	<1.0	<1.0
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

			PAH														TPH			
			Benzene	Benzo(k)fluoranthene	PAHs (Vic EPA List)	Chrysene	Fluoranthene	Dibenz(a,h)anthracene	2-chloronaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	PAHs (Sum of total)	Fluorene	Indeno(1,2,3-c,d)pyrene	Pyrene	Phenanthrene	C15-C28	+C10-C36 (Sum of total)	C10-C14	C29-C36
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	1	0.5	1	1	1	2	2	2	2	1	1	1	1	100	50	50	50
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950																	
ANZECC (2000) Primary Contact Recreational			10																	
NEPM 2013 Table 1C GILs, Fresh Waters			950																	
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<1.0	<0.5	<1.0	<1.0	<1.0	<2	<2	<2	<2	<1.0	<1.0	<1.0	<1.0	<100	<50	<50	<50
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	<50	<50	<50
MW20	**MW20_191218**	**18/12/2019**	<1	<1.0	<0.5	<1.0	<1.0	<1.0	<2	<2	<2	<2	<1.0	<1.0	<1.0	<1.0	<100	<50	<50	<50
MW21	**MW21_191218**	**18/12/2019**	<1	<1.0	<0.5	<1.0	<1.0	<1.0	<2	<2	<2	<2	<1.0	<1.0	<1.0	<1.0	<100	<50	<50	<50
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	-	<50	<100

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

					TRH							Phenols								
			Benzene	C6-C9	C10-C16	C10-C16 (F2 minus Naphthalene)	C10-C40 (Sum of total)	C16-C34	C34-C40	C6-C10	C6-C10 (F1 minus BTEX)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Nitrophenol	2-Methylphenol	3&4-Methylphenol (m&p-cresol)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	10	50	50	100	100	100	10	10	2	2	2	2	2	2	2	2	4
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800			1000					1000									
4-8m			800			1000					1000									
>=8m			900			1000					1000									
ANZG (2018) Freshwater 95% toxicant DGVs			950										20	160			490			
ANZECC (2000) Primary Contact Recreational			10									1	10							
NEPM 2013 Table 1C GILs, Fresh Waters			950										3[#3]	120			340[#4]			
MW11	**MW11_191218**	**18/12/2019**	<1	<20	<100	<100	<100	<100	<100	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2	<4
	QC104_191218	**18/12/2019**	<1	<20	<100	<100	<100	<100	<100	<20	<20	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<20	<100	<100	<100	<100	<100	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2	<4
MW21	**MW21_191218**	**18/12/2019**	<1	<20	<100	<100	<100	<100	<100	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2	<4
	QC204_191218	**18/12/2019**	<1	<10	<50	<50	-	<100	<100	<10	<10	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

						Amino Aliphatics				Amino Aromatics		Anilines							
			Benzene	Pentachlorophenol	4-chloro-3-methylphenol	Phenol	N-nitrosodiethylamine	N-Nitrosomethylethylamine	N-nitrosodi-n-butylamine	N-nitrosodi-n-propylamine	N-Nitrosodiphenyl & Diphenylamine	1-naphthylamine	2-methyl-5-nitroaniline	3-nitroaniline	4-chloroaniline	4-nitroaniline	2-nitroaniline	Aniline	Hexachlorocyclopentadiene	Hexachloroethane
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	4	2	2	2	2	2	2	4	2	2	4	2	2	4	2	10	2
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950	10		320												250		360
ANZECC (2000) Primary Contact Recreational			10	10																
NEPM 2013 Table 1C GILs, Fresh Waters			950	3.6[#3]		320												8		290[#3]
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<4	<2	<2	<2	<2	<2	<2	<4	<2	<2	<4	<2	<2	<4	<2	<10	<2
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<4	<2	<2	<2	<2	<2	<2	<4	<2	<2	<4	<2	<2	<4	<2	<10	<2
MW21	**MW21_191218**	**18/12/2019**	<1	<4	<2	<2	<2	<2	<2	<2	<4	<2	<2	<4	<2	<2	<4	<2	<10	<2
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

			Chlorinated Hydrocarbons																	
			Benzene	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,1-dichloropropene	1,2,3-trichloropropane	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	2,2-dichloropropane	1,3-dichloropropane	Bromodichloromethane	Carbon tetrachloride	Bromoform	Chloroethane
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	50
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950				6,500													
ANZECC (2000) Primary Contact Recreational			10						0.3				10					3		
NEPM 2013 Table 1C GILs, Fresh Waters			950				6,500													
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50
MW21	**MW21_191218**	**18/12/2019**	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<50
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

			Benzene	Chlorodibromomethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dibromomethane	Hexachlorobutadiene	Tetrachloroethene	trans-1,3-dichloropropene	trans-1,2-dichloroethene	Trichloroethene	Vinyl chloride	Halo				
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	5	5	50	5	5	5	2	5	5	5	5	50	4	2	5	2	5
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950																170	10
ANZECC (2000) Primary Contact Recreational			10											30						
NEPM 2013 Table 1C GILs, Fresh Waters			950																85[#3]	3[#3]
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<5	<5	<50	<5	<5	<5	<2	<5	<5	<5	<5	<50	<4	<2	<5	<2	<5
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<5	<5	<50	<5	<5	<5	<2	<5	<5	<5	<5	<50	<4	<2	<5	<2	<5
MW21	**MW21_191218**	**18/12/2019**	<1	<5	<5	<50	<5	<5	<5	<2	<5	<5	<5	<5	<50	<4	<2	<5	<2	<5
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

			genated Benzenes							Halogenated Hydrocarbons					Herbicides	Nitroaromatics			Pesticides	
			Benzene	1,2-dichlorobenzene	4-chlorotoluene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromobenzene	Chlorobenzene	1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Pronamide	2-Picoline	4-aminobiphenyl	Pentachloronitrobenzene	Carbazole	Chlorobenzilate
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	2	5	2	2	5	5	5	50	50	5	50	2	2	2	2	2	2
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950	160		260	60													
ANZECC (2000) Primary Contact Recreational			10																	
NEPM 2013 Table 1C GILs, Fresh Waters			950	160		260	60													
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<2	<5	<2	<2	<5	<5	<5	<50	<50	<5	<50	<2	<2	<2	<2	<2	<2
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<2	<5	<2	<2	<5	<5	<5	<50	<50	<5	<50	<2	<2	<2	<2	<2	<2
MW21	**MW21_191218**	**18/12/2019**	<1	<2	<5	<2	<2	<5	<5	<5	<50	<50	<5	<50	<2	<2	<2	<2	<2	<2
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

				Organochlorine Pesticides																
			Benzene	Pirimphos-ethyl	4,4-DDE	a-BHC	Aldrin	b-BHC	d-BHC	DDD	DDT	Dieldrin	Endosulfan I	Endosulfan II	DDT+DDE+DDD	Endosulfan sulphate	Endrin	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	2	2	2	2	2	2	2	4	2	2	2	4	2	2	2	2	2
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950								0.006						0.01	0.2	0.09	
ANZECC (2000) Primary Contact Recreational			10				1				3	1					1	10	3	
NEPM 2013 Table 1C GILs, Fresh Waters			950								0.006[#3]						0.01[#3]	0.2	0.01[#3]	
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<4	<2	<2	<2	<2	<2
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<4	<2	<2	<2	<2	<2
MW21	**MW21_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<2	<2	<2	<4	<2	<2	<2	<4	<2	<2	<2	<2	<2
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

					Organophosphorous Pesticides										Explosives					
			Benzene	Aldrin + Dieldrin	Chlorpyrifos	Chlorpyrifos-methyl	Diazinon	Dichlorvos	Ethion	Dimethoate	Malathion	Prothiofos	Chlorfenvinphos	Fenthion	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-dinitrotoluene	Nitrobenzene	Butyl benzyl phthalate	Bis(2-ethylhexyl) phthalate
			µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	4	2	0.002	2	2	2	2	2	2	2	2	0.002	4	4	2	2	10
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950		0.01		0.01			0.15	0.05									
ANZECC (2000) Primary Contact Recreational			10		3		10	20	6	100	100		10							
NEPM 2013 Table 1C GILs, Fresh Waters			950		0.01[#3]		0.01			0.15	0.05									
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<4	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<2	<10
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<4	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<2	<10
MW21	**MW21_191218**	**18/12/2019**	<1	<4	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<4	<4	<2	<2	<10
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

			Phthalates					Solvents						Other	VOCs					
			Benzene	Diethylphthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Isophorone	2-hexanone (MBK)	4-Methyl-2-pentanone	Vinyl acetate	Carbon disulfide	Methyl Ethyl Ketone	Acetophenone	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Pentachloroethane	2-(acetylamino) fluorene	4-Nitroquinoline-N-oxide	Azobenzene
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	2	2	2	2	2	50	50	50	5	50	2	5	5	5	2	2	2
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																				
2-4m			800																	
4-8m			800																	
>=8m			900																	
ANZG (2018) Freshwater 95% toxicant DGVs			950	1,000	3,700	26														
ANZECC (2000) Primary Contact Recreational			10																	
NEPM 2013 Table 1C GILs, Fresh Waters			950	1,000	3,700	10[#3]														
Location	**Field ID**	**Date**																		
MW11	**MW11_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<2	<50	<50	<50	<5	<50	<2	<5	<5	<5	<2	<2	<2
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<2	<50	<50	<50	<5	<50	<2	<5	<5	<5	<2	<2	<2
MW21	**MW21_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<2	<50	<50	<50	<5	<50	<2	<5	<5	<5	<2	<2	<2
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

			SVOCs													
			Benzene	Bis(2-chloroethyl)ether	Hexachloropropene	Methapyrilene	N-nitrosomorpholine	N-nitrosopyrrolidine	Phenacetin	3,3-Dichlorobenzidine	4-(dimethylamino) azobenzene	Dibenzofuran	4-bromophenyl phenyl ether	4-chlorophenyl phenyl ether	Bis(2-chloroethoxy) methane	N-nitrosopiperidine
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL			1	2	2	2	2	4	2	2	2	2	2	2	2	2
NEPM 2013 Table 1A(4) HSL A/B GW - Vap Intrusion, Sand																
2-4m			800													
4-8m			800													
>=8m			900													
ANZG (2018) Freshwater 95% toxicant DGVs			950													
ANZECC (2000) Primary Contact Recreational			10													
NEPM 2013 Table 1C GILs, Fresh Waters			950													
Location	**Field ID**	**Date**														
MW11	**MW11_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2
	QC104_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
MW20	**MW20_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2
MW21	**MW21_191218**	**18/12/2019**	<1	<2	<2	<2	<2	<4	<2	<2	<2	<2	<2	<2	<2	<2
	QC204_191218	**18/12/2019**	<1	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments

#1 Sum of individual values for o-xylene (350ug/L) and p-xylene (200ug/

#2 Values calculated using hardness of 30 mg/L CaCO3. Refer ANZECC &

#3 Chemical for which possible bioaccumulation and secondary poisonir

#4 Figure may not protect key species from chronic toxicity, refer to AN

Lab Report Number			ES1939690			ES1939690	232338		ES1939690			ES1939690	232338		ES1939690			ES1939690	232338		ES1939690			ES1939690	232338		ES1939690	ES1939690		ES1939690	ES1939690
Field ID			BH02_2.5_191127	QC100_191127		BH08_2.0_191127	QC200_191127		BH09_0.1_191127	QC101_191127		BH15_1.5_191128	QC201_191128		BH19_0.5_191129	QC102_191129		MW21_0.3_191129	QC202_191129		MW21_1.3_191129	QC103_191129		MW21_1.3_191129	QC203_191129		TS_191127	TSC		TB_191128	TB_191129
Date			27/11/2019	27/11/2019		27/11/2019	27/11/2019		27/11/2019	27/11/2019		28/11/2019	28/11/2019		29/11/2019	29/11/2019		29/11/2019	29/11/2019		29/11/2019	29/11/2019		29/11/2019	29/11/2019		27/11/2019	27/11/2019		28/11/2019	29/11/2019
Sample type			Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Normal	Field_D		Normal	Interlab_D		Trip_S	TSC		Trip_B	Trip_B
Matrix Type			soil	soil	RPD	soil	soil	RPD	soil	soil	RPD	soil	soil	RPD	soil	soil	RPD	soil	soil	RPD	soil	soil	RPD	soil	soil	RPD	soil	soil	% Spike recovery	soil	soil
	Unit	EQL																													
Asbestos																															
Asbestos (Fines and Fibrous <7mm)	g	0.0004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0004	-	-	-	-	-	-	-	-	-	-	-	-	-
Asbestos Containing Material	g	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Asbestos Containing Material (as 15% Asbestos in A	% (w/w)	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-
Asbestos fibres	Detect		-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-
Fibrous Asbestos >7mm	g	0.0004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0004	-	-	-	-	-	-	-	-	-	-	-	-	-
APPROVED IDENTIFIER:	--		-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-
Asbestos (Trace)	Fibres	5	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-
Asbestos Type	Detect		-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-
	--		-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asbestos from FA & AF in Soil	%w/w	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-
NA																															
Weight Used for % Calculation	kg	0.0001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.271	-	-	-	-	-	-	-	-	-	-	-	-	-
Description	--		-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-
Organic Fibre	g/kg	0.1	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-
Synthetic Mineral Fibre	g/kg	0.1	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	0	-	-	0	-	-	0	-	-	-	-	-	-	-
weight of sample	g	0.01	-	-	-	-	-	-	268	-	-	-	-	-	315	-	-	271	-	-	33.9	-	-	33.9	-	-	-	-	-	-	-
Moisture Content	%	1	84.6	85.0	0	83.2	-	-	27.9	6.9	121	84.0	-	-	13.4	7.1	61	20.8	-	-	80.1	81.8	2	80.1	-	-	-	-	-	-	-
BTEX																															
Benzene	mg/kg	0.2	<0.5	<0.5	0	<0.5	<0.2	0	<0.2	<0.2	0	<0.5	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.5	<0.5	0	<0.5	<0.2	0	< 0.2	< 0.2	100	<0.2	<0.2
Ethylbenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0	2	2.2	91	<0.5	<0.5
Toluene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	11.4	12.3	93	<0.5	<0.5
Total BTEX	mg/kg	0.2	<0.2	<0.2	0	<0.2	-	-	<0.2	<0.2	0	<0.2	-	-	<0.2	<0.2	0	<0.2	-	-	<0.2	<0.2	0	<0.2	-	-	29.2	31.7	92	<0.2	<0.2
Xylene (m & p)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<2	0	<0.5	<0.5	0	<0.5	<2	0	<0.5	<0.5	0	<0.5	<2	0	<0.5	<0.5	0	<0.5	<2	0	11.2	12.2	92	<0.5	<0.5
Xylene (o)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0	4.6	5	92	<0.5	<0.5
Xylene Total	mg/kg	0.5	<0.5	<0.5	0	<0.5	<3	0	<0.5	<0.5	0	<0.5	<3	0	<0.5	<0.5	0	<0.5	<3	0	<0.5	<0.5	0	<0.5	<3	0	15.8	17.2	92	<0.5	<0.5
Inorganics																															
Moisture	%	0.1	-	-	-	-	41	-	-	-	-	-	39	-	-	-	-	-	11	-	-	-	-	-	39	-					
Metals																															
Arsenic	mg/kg	4	<5	<5	0	<5	<4	0	<5	<5	0	<5	<4	0	<5	<5	0	<5	<4	0	<5	<5	0	<5	<4	0	-	-	-	-	-
Cadmium	mg/kg	0.4	<1	<1	0	<1	<0.4	0	<1	<1	0	<1	<0.4	0	6	3	67	<1	<0.4	0	<1	<1	0	<1	<0.4	0	-	-	-	-	-
Chromium (III+VI)	mg/kg	1	6	4	40	6	2	100	6	6	0	11	1	167	12	9	29	13	7	60	4	6	40	4	2	67	-	-	-	-	-
Copper	mg/kg	1	6	<5	18	6	3	67	17	15	12	8	2	120	235	121	64	111	8	173	<5	6	18	<5	1	0	-	-	-	-	-
Lead	mg/kg	1	8	<5	46	<5	<1	0	139	145	4	21	<1	182	446	438	2	38	100	90	<5	10	67	<5	<1	0	-	-	-	-	-
Mercury	mg/kg	0.1	0.2	<0.1	67	<0.1	<0.1	0	0.2	0.2	0	0.1	<0.1	0	1.2	0.3	120	0.1	0.1	0	<0.1	0.2	67	<0.1	<0.1	0	-	-	-	-	-
Nickel	mg/kg	1	6	<2	100	10	4	86	3	2	40	5	1	133	20	12	50	10	1	164	3	4	29	3	<1	100	-	-	-	-	-
Zinc	mg/kg	1	14	13	7	8	4	67	229	200	14	110	3	189	576	310	60	37	220	142	60	43	33	60	2	187	-	-	-	-	-
MAH																															
1,2,4-trimethylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-trimethylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
n-butylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
n-propylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
p-isopropyltoluene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-butylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-butylbenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
PAH																															
Naphthalene	mg/kg	0.5	<1	<1	0	<1	<1	0	<0.5	<1	0	<1	<1	0	<0.5	<1	0	<0.5	<1	0	<1	<1	0	<1	<1	0	< 1	< 1	100	<1	<1
2-methylnaphthalene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Benzo(a) pyrene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	0.8	-	-	<2.0	-	-	3.7	-	-	2.4	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Benzo(a)pyrene TEQ calc (Half)	mg/kg	0.5	2.4	-	-	2.4	-	-	1.2	-	-	2.4	-	-	5.0	-	-	3.3	-	-	2.4	-	-	2.4	-	-	-	-	-	-	-
Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5	4.8	-	-	4.8	-	-	1.5	-	-	4.8	-	-	5.2	-	-	3.5	-	-	4.8	-	-	4.8	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Anthracene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	1.0	-	-	1.2	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Benz(a)anthracene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	0.8	-	-	<2.0	-	-	3.5	-	-	1.9	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0.5	<0.5	-	-	<0.5	-	-	0.9	-	-	<0.5	-	-	4.7	-	-	3.0	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	0.5	-	-	<2.0	-	-	3.8	-	-	2.1	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	1.2	-	-	1.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	1.4	-	-	0.8	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
PAHs (Vic EPA List)	mg/kg	0.5	<1.0	-	-	<1.0	-	-	7.2	-	-	<1.0	-	-	37.1	-	-	24.4	-	-	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Chrysene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	0.7	-	-	<2.0	-	-	3.2	-	-	1.8	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	1.7	-	-	<2.0	-	-	7.5	-	-	4.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2-chloronaphthalene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
3-methylcholanthrene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
7,12-dimethylbenz(a)anthracene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	1.2	-	-	1.0	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Pyrene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	1.9	-	-	<2.0	-	-	7.3	-	-	4.3	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.5	<2.0	-	-	<2.0	-	-	0.8	-	-	<2.0	-	-	3.3	-	-	2.9	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
TPH																															
C15-C28	mg/kg	100	5,200	3,050	52	2,720	440	144	<100	<100	0	3,600	2,200	48	280	180	43	580	<100	141	3,550	5,450	42	3,550	4,200	17	-	-	-	-	-
+C10-C36 (Sum of total)	mg/kg	50	8,520	4,550	61	5,180	-	-	110	<50	75	6,820	-	-	530	360	38	1,720	-	-	6,730	9,800	37	6,730	-	-	-	-	-	-	-
C10-C14	mg/kg	50	<110	<110	0	<110	<50	0	<50	<50	0	<110	<50	0	<50	<50	0	<50	<50	0	<110	<110	0	<110	<50	0	-	-	-	-	-
C29-C36	mg/kg	100	3,320	1,500	76	2,460	470	136	110	<100	10	3,220	2,000	47	250	180	33	1,140	<100	168	3,180	4,350	31	3,180	2,000	46	-	-	-	-	-
C6-C9	mg/kg	10	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	36	39	92	<10	<10
TRH																															
C10-C16	mg/kg	50	<110	<110	0	<110	<50	0	<50	<50	0	<110	<50	0	<50	<50	0	<50	<50	0	<110	<110	0	<110	<50	0	-	-	-	-	-
C10-C16 (F2 minus Naphthalene)	mg/kg	50	<110	<110	0	<110	<50	0	<50	<50	0	<110	<50	0	<50	<50	0	<50	<50	0	<110	<110	0	<110	<50	0	-	-	-	-	-
C10-C40 (Sum of total)	mg/kg	50	8,630	4,780	57	5,340	1,000	137	250	120	70	6,900	4,700	38	610	410	39	2,370	<50	192	7,130	10,100	34	7,130	6,600	8	-	-	-	-	-
C16-C34	mg/kg	100	7,950	4,110	64	4,750	820	141	150	120	22	6,080	4,100	39	450	280	47	1,280	<100	171	6,040	9,020	40	6,040	6,100	1	-	-	-	-	-
C34-C40	mg/kg	100	680	670	1	590	200	99	100	<100	0	820	550	39	160	130	21	1,090	<100	166	1,090	1,060	3	1,090	520	71	-	-	-	-	-
C6-C10	mg/kg	10	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	47	51	92	<10	<10
C6-C10 (F1 minus BTEX)	mg/kg	10	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	<10	<10	0	<10	<25	0	18	19	95	<10	<10
Phenols																															
2,4,5-Trichlorophenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2,6-Dichlorophenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
3&4-Methylphenol (m&p-cresol)	mg/kg	1	<4	-	-	<4	-	-	<1	-	-	<4	-	-	<1	-	-	<1	-	-	<4	-	-	<4	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	2	<4	-	-	<4	-	-	<2	-	-	<4	-	-	<2	-	-	<2	-	-	<4	-	-	<4	-	-	-	-	-	-	-
4-chloro-3-methylphenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Phenol	mg/kg	0.5	<2.0	-	-	<2.0	-	-	<0.5	-	-	<2.0	-	-	<0.5	-	-	<0.5	-	-	<2.0	-	-	<2.0	-	-	-	-	-	-	-
Amino Aliphatics																															
N-nitrosodiethylamine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosomethylethylamine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
N-nitrosodi-n-butylamine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
N-nitrosodi-n-propylamine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Amino Aromatics																															
N-Nitrosodiphenyl & Diphenylamine	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1-naphthylamine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Anilines																															
2-methyl-5-nitroaniline	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
3-nitroaniline	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
4-chloroaniline	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
4-nitroaniline	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
2-nitroaniline	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Aniline	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
PCBs																															
PCBs (Sum of total)	mg/kg	0.1	<0.7	-	-	<0.7	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-					
Chlorinated Hydrocarbons																															
Hexachlorocyclopentadiene	mg/kg	2.5	-	-	-	-	-	-	-	-	-	-	-	-	<2.5	-	-	<2.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-tetrachloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-trichloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-tetrachloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-trichloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-dichloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-dichloroethene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-dichloropropene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-trichloropropane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-dibromo-3-chloropropane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-dichloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-dichloropropane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2-dichloropropane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-dichloropropane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-dichloroethene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-dichloropropene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-dichloropropene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-dichloroethene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-
Halogenated Benzenes																															
Hexachlorobenzene	mg/kg	0.05	<0.12	-	-	<0.12	-	-	<0.05	-	-	<0.12	-	-	<0.05	-	-	<0.05	-	-	<0.12	-	-	<0.12	-	-	-	-	-	-	-
Pentachlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
2-chlorotoluene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-trichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-dichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-trichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-dichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-dichlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
4-chlorotoluene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-

Lab Report Number		ES1939690				ES1939690	232338			ES1939690				ES1939690	232338			ES1939690				ES1939690				ES1939690	232338			ES1939690				ES1939690				ES1939690	ES1939690	
Field ID		BH02_2.5_191127		QC100_191127		BH08_2.0_191127	QC200_191127			BH09_0.1_191127		QC101_191127		BH15_1.5_191128	QC201_191128			BH19_0.5_191129		QC102_191129		MW21_0.3_191129	QC202_191129			MW21_1.3_191129		QC103_191129		MW21_1.3_191129	QC203_191129			TS_191127	TSC			TB_191128	TB_191129	
Date		27/11/2019		27/11/2019		27/11/2019	27/11/2019			27/11/2019		27/11/2019		28/11/2019	28/11/2019			29/11/2019		29/11/2019		29/11/2019	29/11/2019			29/11/2019		29/11/2019		29/11/2019	29/11/2019			27/11/2019	27/11/2019			28/11/2019	29/11/2019	
Sample type		Normal		Field_D		Normal	Interlab_D			Normal		Field_D		Normal	Interlab_D			Normal		Field_D		Normal	Interlab_D			Normal		Field_D		Normal	Interlab_D			Trip_S	TSC		% Spike recovery	Trip_B	Trip_B	
Matrix Type		soil		soil	RPD	soil	soil		RPD	soil		soil	RPD	soil	soil		RPD	soil		soil	RPD	soil	soil	RPD		soil		soil	RPD	soil	soil	RPD		soil	soil			soil	soil	
Halogenated Hydrocarbons																																								
1,2-dibromoethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iodomethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herbicides																																								
Pronamide	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroaromatics																																								
2-Picoline	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-aminobiphenyl	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloronitrobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pesticides																																								
Carbazole	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzilate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demeton-S-methyl	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Fenamiphos	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Parathion	mg/kg	0.2	<0.5	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
Pirimphos-ethyl	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Organochlorine Pesticides																																								
Endosulfan	mg/kg	0.05	<0.07	-	-	<0.07	-	-	-	<0.05	-	-	-	<0.07	-	-	-	<0.05	-	-	-	<0.07	-	-	-	<0.07	-	-	-	<0.07	-	-	-	-	-	-	-	-	-	-	-
Chlordane (cis)	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	0.06	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Chlordane (trans)	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	0.52	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
4,4-DDE	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
a-BHC	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Aldrin	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	0.18	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
b-BHC	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
d-BHC	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
DDD	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
DDT	mg/kg	0.2	<0.5	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dieldrin	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	1.59	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
DDT+DDE+DDD	mg/kg	0.05	<0.05	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
Endosulfan sulphate	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Endrin	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
g-BHC (Lindane)	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Endrin aldehyde	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Heptachlor	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	0.16	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Endrin ketone	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Heptachlor epoxide	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	0.20	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/kg	0.2	<0.5	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
chlordane	mg/kg	0.05	<0.05	-	-	<0.05	-	-	-	0.58	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
Aldrin + Dieldrin	mg/kg	0.05	<0.05	-	-	<0.05	-	-	-	1.77	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	<0.05	-	-	-	-	-	-	-	-	-	-	-
Organophosphorous Pesticides																																								
Bromophos-ethyl	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Ailmophos methyl	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos-methyl	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Diazinon	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Dichlorvos	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Ethion	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Carbophenothion	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Malathion	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Prothiofos	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Chlorfenvinphos	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Fenthion	mg/kg	0.05	<0.12	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.05	-	-	-	<0.12	-	-	-	<0.12	-	-	-	<0.12	-	-	-	-	-	-	-	-	-	-	-
Methyl parathion	mg/kg	0.2	<0.5	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
Monocrotophos	mg/kg	0.2	<0.5	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.2	-	-	-	<0.5	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
Explosives																																								
1,3,5-Trinitrobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-dinitrotoluene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalates																																								
Butyl benzyl phthalate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-ethylhexyl) phthalate	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5.0	-	-	-	<5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylphthalate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butyl phthalate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solvents																																								
Isophorone	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-hexanone (MBK)	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl acetate	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	mg/kg	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other																																								
Acetophenone	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPOCAS																																								
Acid Reacted Calcium	%	0.02	<0.020	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acid Reacted Magnesium	%	0.02	<0.020	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acidity - Acid Reacted Calcium	mole H+/t	10	<10	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acidity - Acid Reacted Magnesium	mole H+/t	10	<10	-	-	-	-	-	-	-	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acidity - Peroxide Oxidisable Sulfur	mole H+/t	10	951	-	-	-	-	-	-	-	-	-	-	1,230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANC Fineness Factor	-	0.5	1.5	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium in Peroxide	%	0.02	0.310	-	-	-	-	-	-	-	-	-	-	0.681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a-Net Acidity without ANCE	moles H+/t	10	1,150	-	-	-	-	-	-	-	-	-	-	1,320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KCl Extractable Calcium	%	0.02	0.525	-	-	-	-	-	-	-	-	-	-	0.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KCl Extractable Magnesium	%	0.02	0.212	-	-	-	-	-	-	-	-	-	-	0.068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KCl Extractable Sulfur	%	0.02	0.036	-	-	-	-	-	-	-	-	-	-	0.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liming Rate	kg CaCO3/t	1	86	-	-	-	-	-	-	-	-	-	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium in Peroxide	%	0.02	0.142	-	-	-	-	-	-	-	-	-	-	0.053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liming rate without ANCE	kg CaCO3/t	1	86	-	-	-	-	-	-	-	-	-	-	99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Acidity (acidity units)	mole H+/t	10	1,150	-	-	-	-	-	-	-	-	-	-	1,320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peroxide Oxidisable Sulfur	%	0.02	1.52	-	-	-	-	-	-	-	-	-	-	1.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Acidity (sulfur units)	%S	0.02	1.84	-	-	-	-	-	-	-	-	-	-	2.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH (KCl)	-	0.1	4.5	-	-	-	-	-	-	-	-	-	-	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH (Ox)	-	0.1	1.8	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
a-Net Acidity without ANCE	% S		1.84	-	-	-	-	-	-	-	-	-	-	2.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sulfidic - Acid Reacted Calcium	% S		<0.020	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sulfidic - Acid Reacted Magnesium	%S	0.02	<0.020	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sulfidic - Titratable Actual Acidity	%S	0.02	0.319	-	-	-	-	-	-	-	-	-	-	0.128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sulfidic - Titratable Peroxide Acidity	%S	0.02	8.63	-	-	-	-	-	-	-	-	-	-	9.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur in Peroxide	%	0.02	1.56	-	-	-	-	-	-	-	-	-	-	2.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
sulfidic - Titratable Sulfidic Acidity	%S	0.02	8.31	-	-	-	-	-	-	-	-	-	-	9.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Titratable Actual Acidity	mole H+/t	2	199	-	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Titratable Peroxide Acidity	mole H+/t	2	5,380	-	-	-	-	-	-	-	-	-	-	5,720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Titratable Sulfidic Acidity	mole H+/t	2	5,180	-	-	-	-	-	-	-	-	-	-	5,640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VOCs																																								
cis-1,4-Dichloro-2-butene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloroethane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs																																								
2-(acetylamino) fluorene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroquinoline-N-oxide	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloropropene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methapyrilene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-nitrosomorpholine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-nitrosopyrrolidine	mg/kg	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenacetin	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,3-Dichlorobenzidine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-(dimethylamino) azobenzene	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-chlorophenyl phenyl ether	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-bromophenyl phenyl ether	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy) methane	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-nitrosopiperidine	mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RPDs have only been considered where a concentration is greater than 1 times the EQL.
Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

	Lab Report Number		ES1942135			ES1942135	233598		ES1939690	ES1939690	ES1939690	ES1942135	ES1942135
	Field ID		MW11_191218	QC104_191218		MW21_191218	QC204_191218		QC300_191127	QC301_191128	QC302_191129	QC304_191218	TB_191218
	Date		18/12/2019	18/12/2019		18/12/2019	18/12/2019		27/11/2019	28/11/2019	29/11/2019	18/12/2019	18/12/2019
	Sample type		Normal	Field_D		Normal	Interlab_D		Rinsate	Rinsate	Rinsate	Rinsate	Trip_B
	Matrix Type		water	water	RPD	water	water	RPD	water	water	water	water	water
	Unit	EQL											
BTEX													
Benzene	µg/L	1	<1	<1	0	<1	<1	0	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	1	<2	<2	0	<2	<1	0	<2	<2	<2	<2	<2
Toluene	µg/L	1	<2	<2	0	<2	<1	0	<2	<2	<2	<2	<2
Total BTEX	µg/L	1	<1	<1	0	<1	-	-	<1	<1	<1	<1	<1
Xylene (m & p)	µg/L	2	<2	<2	0	<2	<2	0	<2	<2	<2	<2	<2
Xylene (o)	µg/L	1	<2	<2	0	<2	<1	0	<2	<2	<2	<2	<2
Xylene Total	µg/L	2	<2	<2	0	<2	-	-	<2	<2	<2	<2	<2
Metals													
Arsenic (filtered)	mg/L	0.001	<0.001	<0.001	-	0.010	<0.05	-	<0.001	<0.001	<0.001	<0.001	-
Cadmium (filtered)	mg/L	0.0001	<0.0001	<0.0001	-	<0.0001	<0.01	-	<0.0001	<0.0001	<0.0001	<0.0001	-
Chromium (III+VI) (filtered)	mg/L	0.001	<0.001	<0.001	-	0.002	<0.01	-	<0.001	<0.001	<0.001	<0.001	-
Copper (filtered)	mg/L	0.001	0.001	<0.001	-	<0.001	<0.01	-	<0.001	<0.001	<0.001	0.002	-
Lead (filtered)	mg/L	0.001	0.001	<0.001	-	0.002	<0.03	-	<0.001	<0.001	<0.001	0.003	-
Mercury (filtered)	mg/L	0.0001	<0.0001	<0.0001	-	<0.0001	<0.0005	-	<0.0001	<0.0001	<0.0001	<0.0001	-
Nickel (filtered)	mg/L	0.001	<0.001	<0.001	-	0.001	<0.02	-	<0.001	<0.001	<0.001	<0.001	-
Zinc (filtered)	mg/L	0.005	0.008	<0.005	-	0.006	<0.02	-	<0.005	<0.005	<0.005	<0.005	-
MAH													
1,2,4-trimethylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,3,5-trimethylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Isopropylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
n-butylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
n-propylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
p-isopropyltoluene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
sec-butylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Styrene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
tert-butylbenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
PAH													
Naphthalene	µg/L	1	<1.0	<5	-	<1.0	<1	-	<5	<5	<5	<5	<5
2-methylnaphthalene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Benzo(b+j+k)fluoranthene	mg/L	0.004	<0.004	-	-	<0.004	-	-	-	-	-	-	-
Acenaphthene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Benzo(a) pyrene	µg/L	0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-
Acenaphthylene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Anthracene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Benz(a)anthracene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Benzo(a)pyrene TEQ calc (Zero)	mg/L	0.0005	<0.0005	-	-	<0.0005	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
PAHs (Vic EPA List)	µg/L	0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-
Chrysene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Fluoranthene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
2-chloronaphthalene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
3-methylcholanthrene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
7,12-dimethylbenz(a)anthracene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
PAHs (Sum of total)	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Fluorene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Pyrene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
Phenanthrene	µg/L	1	<1.0	-	-	<1.0	-	-	-	-	-	-	-
TPH													
C15-C28	µg/L	100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	-
+C10-C36 (Sum of total)	µg/L	50	<50	<50	-	<50	-	-	<50	<50	<50	<50	-
C10-C14	µg/L	50	<50	<50	-	<50	<50	-	<50	<50	<50	<50	-
C29-C36	µg/L	50	<50	<50	-	<50	<100	-	<50	<50	<50	<50	-
C6-C9	µg/L	10	<20	<20	-	<20	<10	-	<20	<20	<20	<20	<20
TRH													
C10-C16	µg/L	50	<100	<100	-	<100	<50	-	<100	<100	<100	<100	-
C10-C16 (F2 minus Naphthalene)	µg/L	50	<100	<100	-	<100	<50	-	<100	<100	<100	<100	-
C10-C40 (Sum of total)	µg/L	100	<100	<100	-	<100	-	-	<100	<100	<100	<100	-
C16-C34	µg/L	100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	-
C34-C40	µg/L	100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	-
C6-C10	µg/L	10	<20	<20	-	<20	<10	-	<20	<20	<20	<20	<20
C6-C10 (F1 minus BTEX)	µg/L	10	<20	<20	-	<20	<10	-	<20	<20	<20	<20	<20
Phenols													
2,4,5-Trichlorophenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2,6-Dichlorophenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2-Methylphenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
3&4-Methylphenol (m&p-cresol)	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
4-chloro-3-methylphenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Phenol	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Amino Aliphatics													
N-nitrosodiethylamine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
N-Nitrosomethylethylamine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
N-nitrosodi-n-butylamine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
N-nitrosodi-n-propylamine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Amino Aromatics													
N-Nitrosodiphenyl & Diphenylamine	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
1-naphthylamine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Anilines													
2-methyl-5-nitroaniline	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
3-nitroaniline	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
4-chloroaniline	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-nitroaniline	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2-nitroaniline	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Aniline	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Chlorinated Hydrocarbons													
Hexachlorocyclopentadiene	µg/L	10	<10	-	-	<10	-	-	-	-	-	-	-
Hexachloroethane	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
1,1,1,2-tetrachloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,1,1-trichloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,1,2,2-tetrachloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,1,2-trichloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,1-dichloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,1-dichloroethene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,1-dichloropropene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,2,3-trichloropropane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,2-dibromo-3-chloropropane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,2-dichloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,2-dichloropropane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
2,2-dichloropropane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,3-dichloropropane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Bromoform	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Chloroethane	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Chlorodibromomethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Chloroform	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Chloromethane	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
cis-1,2-dichloroethene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
cis-1,3-dichloropropene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Dibromomethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Hexachlorobutadiene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
trans-1,3-dichloropropene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
trans-1,2-dichloroethene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Trichloroethene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Vinyl chloride	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Halogenated Benzenes													
Hexachlorobenzene	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Pentachlorobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2-chlorotoluene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,2,4-trichlorobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
1,2,3-trichlorobenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
1,2-dichlorobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
1,3-dichlorobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
1,4-dichlorobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-chlorotoluene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Bromobenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Chlorobenzene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Halogenated Hydrocarbons													
1,2-dibromoethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Bromomethane	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-

Lab Report Number			ES1942135			ES1942135	233598		ES1939690	ES1939690	ES1939690	ES1942135	ES1942135
Field ID			MW11_191218	QC104_191218		MW21_191218	QC204_191218		QC300_191127	QC301_191128	QC302_191129	QC304_191218	TB_191218
Date			18/12/2019	18/12/2019		18/12/2019	18/12/2019		27/11/2019	28/11/2019	29/11/2019	18/12/2019	18/12/2019
Sample type			Normal	Field_D		Normal	Interlab_D		Rinsate	Rinsate	Rinsate	Rinsate	Trip_B
Matrix Type			water	water	RPD	water	water	RPD	water	water	water	water	water
Dichlorodifluoromethane	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Iodomethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Herbicides													
Pronamide	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Nitroaromatics													
2-Picoline	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Pentachloronitrobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-aminobiphenyl	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Pesticides													
Carbazole	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Chlorobenzilate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Pirimphos-ethyl	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Organochlorine Pesticides													
4,4-DDE	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
a-BHC	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Aldrin	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
b-BHC	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
d-BHC	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
DDD	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
DDT	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Dieldrin	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Endosulfan I	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Endosulfan II	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
DDT+DDE+DDD	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Endosulfan sulphate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Endrin	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
g-BHC (Lindane)	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Heptachlor	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Heptachlor epoxide	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Aldrin + Dieldrin	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Organophosphorous Pesticides													
Chlorpyrifos	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Chlorpyrifos-methyl	mg/L	0.002	<0.002	-	-	<0.002	-	-	-	-	-	-	-
Diazinon	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Dichlorvos	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Ethion	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Dimethoate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Malathion	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Prothiofos	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Chlorfenvinphos	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Fenthion	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Explosives													
1,3,5-Trinitrobenzene	mg/L	0.002	<0.002	-	-	<0.002	-	-	-	-	-	-	-
2,4-Dinitrotoluene	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
2,6-dinitrotoluene	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Nitrobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Phthalates													
Butyl benzyl phthalate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Bis(2-ethylhexyl) phthalate	µg/L	10	<10	-	-	<10	-	-	-	-	-	-	-
Diethylphthalate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Dimethyl phthalate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Di-n-butyl phthalate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Di-n-octyl phthalate	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Solvents													
Isophorone	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
2-hexanone (MBK)	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
4-Methyl-2-pentanone	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Vinyl acetate	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Carbon disulfide	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	50	<50	-	-	<50	-	-	-	-	-	-	-
Other													
Acetophenone	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
VOCs													
cis-1,4-Dichloro-2-butene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
trans-1,4-Dichloro-2-butene	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
Pentachloroethane	µg/L	5	<5	-	-	<5	-	-	-	-	-	-	-
SVOCs													
2-(acetylamino) fluorene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-Nitroquinoline-N-oxide	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Azobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Hexachloropropene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Methapyrilene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
N-nitrosomorpholine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
N-nitrosopyrrolidine	µg/L	4	<4	-	-	<4	-	-	-	-	-	-	-
Phenacetin	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
3,3-Dichlorobenzidine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-(dimethylamino) azobenzene	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Dibenzofuran	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-bromophenyl phenyl ether	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
4-chlorophenyl phenyl ether	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
N-nitrosopiperidine	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-
Bis(2-chloroethoxy) methane	µg/L	2	<2	-	-	<2	-	-	-	-	-	-	-

**RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Appendix G

Laboratory reports

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☒ Standard or non urgent TAT (List due date): ☐ Non Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065			Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	Lachlan Lewis	FADI
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au, emmconsulting@esdat.net		DATE/TIME:	DATE/TIME: 2/12/19 9am
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:		DATE/TIME:	DATE/TIME:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/PhOC/OP/PCB/8 Metals (s-19)	Asbestos A/F	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	BH01_0.1_191127	27/11/2019	S			X	X							SPOCAS-D
2	BH01_0.5_191127	27/11/2019	S			X	X	X	X	X				Dispatched By / Date: Bosheve
3	BH01_1.0_191127	27/11/2019	S										X	Received By / Date: Asbestos
4	BH01_2.0_191127	27/11/2019	S										X	Transport / Courier: Newcastle
5	BH01_2.5_191127	27/11/2019	S			X				X				QC200, QC201, QC202
6	BH02_0.1_191127	27/11/2019	S			X	X	X	X					PO / Internal Ref:
7	BH02_0.5_191127	27/11/2019	S			X	X							QC203 → Envirolab
8	BH02_1.5_191127	27/11/2019	S										X	
9	BH02_2.5_191127	27/11/2019	S			X				X				
10	BH03_0.1_191127	27/11/2019	S										X	
11	BH03_0.5_191127	27/11/2019	S			X	X							
12	BH03_1.5_191127	27/11/2019	S			X		X		X				
13	BH03_2.5_191127	27/11/2019	S			X				X				
				TOTAL										

Environmental Division Sydney
Work Order Reference
ES1939690

Telephone : +61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Fo Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; Li = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	TAS:
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 27/12/19 9
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY: / DATE/TIME:	RECEIVED BY: / DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	TRH/BTEXN/PAH/Phl/OC/OP/ PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
14	BH04_0.1_191127	27/11/2019	S			X	X	X						
15	BH04_0.5_191127	27/11/2019	S			X	X							
16	BH04_1.5_191127	27/11/2019	S			X				X				
17	BH04_2.5_191127	27/11/2019	S										X	
18	BH05_0.1_191127	27/11/2019	S			X	X							
19	BH05_0.5_191127	27/11/2019	S										X	
20	BH05_0.9_191127	27/11/2019	S			X	X	X	X	X				
21	BH05_1.2_191127	27/11/2019	S			X				X				
22	BH05_2.5_191127	27/11/2019	S										X	
23	BH06_0.1_191127	27/11/2019	S			X	X		X					
24	BH06_0.5_191127	27/11/2019	S			X	X							
25	BH06_1.2_191127	27/11/2019	S										X	
26	BH06_2.2_191127	27/11/2019	S			X				X				
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS : (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	FAST
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19 9a
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	TRH/BTEXN/PAH/PH/OC/OP/ PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
27	BH07_0.1_191127	27/11/2019	S			X	X		X					
28	BH07_0.5_191127	27/11/2019	S										X	
29	BH07_0.9_191127	27/11/2019	S			X		X		X				
30	BH07_1.1_191127	27/11/2019	S			X				X				
31	BH07_2.1_191127	27/11/2019	S										X	
32	BH08_0.1_191127	27/11/2019	S										X	
33	BH08_0.5_191127	27/11/2019	S			X	X			X				
34	BH08_0.9_191127	27/11/2019	S										X	
35	BH08_1.1_191127	27/11/2019	S			X	X	X	X					
36	BH08_2.0_191127	27/11/2019	S			X				X				
37	BH09_0.5_191127	27/11/2019	S			X	X							
38	BH09_1.0_191127	27/11/2019	S			X				X				
39	BH09_1.5_191127	27/11/2019	S										X	
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free Ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	Lachlan Lewis	Fazi
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 21/12/19 a
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Phenol/OC/OP/PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification %w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
40	BH09_2.5_191127	27/11/2019	S										X	
41	BH10_0.1_191128	28/11/2019	S			X	X							
42	BH10_0.5_191128	28/11/2019	S										X	
43	BH10_1.0_191128	28/11/2019	S			X	X	X	X					
44	BH10_1.5_191128	28/11/2019	S										X	
45	BH10_2.5_191128	28/11/2019	S			X				X				
46	MW11_0.1_191128	28/11/2019	S										X	
47	MW11_0.5_191128	28/11/2019	S			X	X		X					
48	MW11_1.2_191128	28/11/2019	S										X	
49	MW11_2.1_191128	28/11/2019	S										X	
50	MW11_3.5_191128	28/11/2019	S			X		X		X				
51	MW11_5.0_191128	28/11/2019	S			X				X				
52	BH12_0.1_191128	28/11/2019	S			X	X	X	X					
				TOTAL		7	4	3	3	3				

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

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OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	FAST
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19 9a
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	TRH/BTEXN/PAH/Phy/OC/OP/ PCB/8 Metals (e-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (e-5/w-5)	TRH/BTEXN (w-18/e-18)	HOLD	Comments on likely contaminant level-s, dilutions, or samples requiring specific QC analysis etc.
53	BH12_0.5_191128	28/11/2019	S										X	
54	BH12_1.5_191128	28/11/2019	S			X				X				
55	BH12_2.5_191128	28/11/2019	S			X				X				
56	BH13_0.5_191128	28/11/2019	S			X	X		X					
57	BH13_1.5_191128	28/11/2019	S			X				X				
58	BH13_2.5_191128	28/11/2019	S			X								
59	BH14_0.3_191128	28/11/2019	S			X	X	X	X	X				
60	BH14_1.0_191128	28/11/2019	S			X	X							
61	BH14_2.0_191128	28/11/2019	S										X	
62	BH14_3.0_191128	28/11/2019	S			X				X				
63	BH15_0.2_191128	28/11/2019	S			X	X							
64	BH15_0.5_191128	28/11/2019	S										X	
65	BH15_2.5_191128	28/11/2019	S			X				X				
				TOTAL		10	4	1	2	6				

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V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS : ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	TRH/BTEXN/PAH/PhOC/OP/ PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification %w/w	SPOCAS	TRH, BTEXN, 8 metals (s-8/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
66	BH16_0.1_191128	28/11/2019	S			X	X							
67	BH16_0.5_191128	28/11/2019	S										X	
68	BH16_0.9_191128	28/11/2019	S			X	X	X	X					
69	BH16_1.2_191128	28/11/2019	S										X	
70	BH16_1.7_191128	28/11/2019	S			X				X				
71	BH16_2.5_191128	28/11/2019	S										X	
72	BH17_0.1_191128	28/11/2019	S			X	X	X	X					
73	BH17_0.5_191128	28/11/2019	S			X	X			X				
74	BH17_1.5_191128	28/11/2019	S										X	
75	BH17_2.5_191128	28/11/2019	S			X				X				
76	BH18_0.1_191129	29/11/2019	S			X	X	X	X					
77	BH18_0.5_191129	29/11/2019	S			X	X							
78	BH18_1.8_191129	29/11/2019	S										X	
				TOTAL		8	6	3	3	3				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd		TURNAROUND REQUIREMENTS : ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)	
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065		(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact?	Yes No N/A
PROJECT:	LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free Ice / frozen Ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER:	J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 8 7	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER: Anthony Davis		CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:	
SAMPLER: Lachlan Lewis		SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY: / RECEIVED BY:
COC Emailed to ALS? (YES / NO)		EDD FORMAT (or default): Esdat	*Lachlan Lewis*		
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au			DATE/TIME:	DATE/TIME: 2/12/19 a	DATE/TIME: / DATE/TIME:
Email Invoice to (will default to PM if no other addresses are listed): as above					

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where **Metals** are required, specify **Total** (unfiltered bottle required) or **Dissolved** (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES	TRH/BTEXN/PAH/PhOC/OP/PCB/8 Metals (s-19)	Asbestos A/F	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
79	BH18_2.8_191129	29/11/2019	S			X				X				
80	BH19_0.1_191129	29/11/2019	S										X	
81	BH19_0.5_191129	29/11/2019	S			X	X	X						
82	BH19_1.0_191129	29/11/2019	S										X	
83	BH19_1.5_191129	29/11/2019	S			X				X				
84	BH19_2.5_191129	29/11/2019	S			X				X				
85	MW20_0.1_191129	29/11/2019	S										X	
86	MW20_0.5_191129	29/11/2019	S			X	X		X					
87	MW20_1.0_191129	29/11/2019	S										X	
88	MW20_1.8_191129	29/11/2019	S			X	X			X				
89	MW20_2.8_191129	29/11/2019	S										X	
90	MW20_4.0_191129	29/11/2019	S			X				X				
91	MW21_0.3_191129	29/11/2019	S			X	X	X	X					
				TOTAL		8	4	2	3	5				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AF = Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS : ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	Fress
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19 9
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Ph/OC/OP/ PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
92	MW21_1.3_191129	29/11/2019	S			X	X							
93	MW21_2.5_191129	29/11/2019	S										X	
94	MW21_4.4_191129	29/11/2019	S			X				X				
													X	
95	BH08_0.1_191127	27/11/2019	S			X	X							
96	BH15_1.5_191128	28/11/2019	S			X				X				
97	TS_191127	27/11/2019	S									X		
98	TDC													
				TOTAL		4	2			2				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g. Ultra Trace Organics)	X Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free Ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	Lachlan Lewis	FAST
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19
Email Invoice to (will default to PM if no other addresses are listed): as above			

RELINQUISHED BY:	RECEIVED BY:
DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
99	QC100_191127	27/11/2019	S								X			
100	QC101_191127	27/11/2019	S								X			
101	QC102_191129	29/11/2019	S								X			
102	QC103_191129	29/11/2019	S								X			
***	QC200_191127	27/11/2019	S								X			Please forward to Envirolab
***	QC201_191128	28/11/2019	S								X			Please forward to Envirolab
***	QC202_191129	29/11/2019	S								X			Please forward to Envirolab
***	QC203_191128	29/11/2019	S								X			Please forward to Envirolab
103	QC300_191127	27/11/2019	W								X			
104	QC301_191128	28/11/2019	W								X			
105	QC302_191129	29/11/2019	W								X			
106	TB_191128	28/11/2019	S									X		
107	TB_191129	29/11/2019	S									X		
108	BH13_0.1	28/11/19			TOTAL									

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

extra
109 BH02_0.9

Jessie Grealy

From: Sepan Mahamad
Sent: Wednesday, 4 December 2019 3:06 PM
To: Jessie Grealy; Loren Schiavon
Subject: FW: [EXTERNAL] - RE: ES1939690 LAHC Redfern

Hi Jessie and Loren,

Please see updated analysis below.

- Extra samples received:
  - BH13_0.1 (asbestos bag and soil jar) - TRH/BTEXN/PAH/pH/OCP/PCB/8 Metals and asbestos (presence/absence)
  - BH02_0.9 (ASS bag) - SPOCAS
- No asbestos bag received for BH01_0.5_191127 (sample # 002) – No asbestos analysis logged for this sample; Please analyse BH01_1.0 for asbestos
- No ASS bag for BH08_2.0_191127 (sample # 036) – No SPOCAS analysis logged for this sample. Please analyse BH08_0.9 for SPOCAS

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad
Client Services Officer, Environmental Sydney

T +61 2 9437 9978
M +61 438 511 003
sepan.mahamad@alsglobal.com
Shop 2, 36 Hume St
Crows Nest NSW 2065 AUSTRALIA

From: Anthony Davis [mailto:adavis@emmconsulting.com.au]
Sent: Wednesday, 4 December 2019 3:00 PM

To: Sepan Mahamad <Sepan.Mahamad@alsglobal.com>
Cc: Lachlan Lewis <llewis@emmconsulting.com.au>
Subject: RE: [EXTERNAL] - RE: ES1939690 LAHC Redfern

Hi Sep,

That would help:

BH13_0.1 (asbestos bag and soil jar) – TRH/BTEXN/PAH/pH/OCP/PCB/8 Metals and asbestos (presence/absence); and
BH02_0.9 (ASS bag) - SPOCAS.

Could you please make hold onto all the samples as additional analysis/TCLP testing will be required following receipt of initial results.

Regards

Anthony

Anthony Davis
Associate Director – Contaminated Land

T 02 9493 9500
D 02 9493 9554
M 0417 269 414
Connect with us

SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

From: Sepan Mahamad <Sepan.Mahamad@alsglobal.com>
Sent: Wednesday, 4 December 2019 2:52 PM
To: Anthony Davis <adavis@emmconsulting.com.au>
Cc: Lachlan Lewis <llewis@emmconsulting.com.au>
Subject: RE: [EXTERNAL] - RE: ES1939690 LAHC Redfern

Thanks Anthony,

Can you please confirm the analysis required for the extra samples?

Extra samples received: BH13_0.1 (asbestos bag and soil jar) and BH02_0.9 (ASS bag).

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad

Client Services Officer, Environmental
Sydney

To: Anthony Davis <adavis@emmconsulting.com.au>
Cc: Lachlan Lewis <llewis@emmconsulting.com.au>
Subject: ES1939690 LAHC Redfern

Hi Anthony,

We have logged the samples on the attached CoC but have come across a few discrepancies:

- Extra samples received: BH13_0.1 (asbestos bag and soil jar) and BH02_0.9 (ASS bag). Please advise if you would like to schedule these samples for analysis; Yes please
- No asbestos bag received for BH01_0.5_191127 (sample # 002) – No asbestos analysis logged for this sample; Please analyse BH01_1.0 for asbestos
- No ASS bag for BH08_2.0_191127 (sample # 036) – No SPOCAS analysis logged for this sample. Please analyse BH08_0.9 for SPOCAS

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad

Client Services Officer, Environmental
Sydney

T +61 2 9437 9978
M +61 438 511 003
sepan.mahamad@alsglobal.com
Shop 2, 36 Hume St
Crows Nest NSW 2065 AUSTRALIA

Jessie Grealy

From: Sepan Mahamad
Sent: Wednesday, 4 December 2019 3:06 PM
To: Jessie Grealy; Loren Schiavon
Subject: FW: [EXTERNAL] - RE: ES1939690 LAHC Redfern

Hi Jessie and Loren,

Please see updated analysis below.

- Extra samples received:
  - BH13_0.1 (asbestos bag and soil jar) - TRH/BTEXN/PAH/pH/OCP/PCB/8 Metals and asbestos (presence/absence)
  - BH02_0.9 (ASS bag) - SPOCAS
- No asbestos bag received for BH01_0.5_191127 (sample # 002) – No asbestos analysis logged for this sample; Please analyse BH01_1.0 for asbestos
- No ASS bag for BH08_2.0_191127 (sample # 036) – No SPOCAS analysis logged for this sample. Please analyse BH08_0.9 for SPOCAS

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad

Client Services Officer, Environmental Sydney

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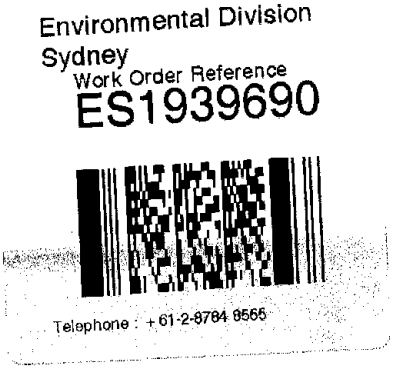
M +61 438 511 003
sepan.mahamad@alsglobal.com
Shop 2, 36 Hume St
Crows Nest NSW 2065 AUSTRALIA



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From: Anthony Davis [mailto:adavis@emmconsulting.com.au]
Sent: Wednesday, 4 December 2019 3:00 PM

To: Sepan Mahamad <Sepan.Mahamad@alsglobal.com>
Cc: Lachlan Lewis <llewis@emmconsulting.com.au>
Subject: RE: [EXTERNAL] - RE: ES1939690 LAHC Redfern

Hi Sep,

That would help:

BH13_0.1 (asbestos bag and soil jar) – TRH/BTEXN/PAH/pH/OCP/PCB/8 Metals and asbestos (presence/absence); and
BH02_0.9 (ASS bag) - SPOCAS.

Could you please make hold onto all the samples as additional analysis/TCLP testing will be required following receipt of initial results.

Regards

Anthony

Anthony Davis
Associate Director | Environmental Consultant

T 02 9493 9500
D 02 9493 9554
M 0417 269 414
Connect with us

SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

From: Sepan Mahamad <Sepan.Mahamad@alsglobal.com>
Sent: Wednesday, 4 December 2019 2:52 PM
To: Anthony Davis <adavis@emmconsulting.com.au>
Cc: Lachlan Lewis <llewis@emmconsulting.com.au>
Subject: RE: [EXTERNAL] - RE: ES1939690 LAHC Redfern

Thanks Anthony,

Can you please confirm the analysis required for the extra samples?

Extra samples received: BH13_0.1 (asbestos bag and soil jar) and BH02_0.9 (ASS bag).

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad
Client Services Officer, Environmental
Sydney

To: Anthony Davis <adavis@emmconsulting.com.au>
Cc: Lachlan Lewis <llewis@emmconsulting.com.au>
Subject: ES1939690 LAHC Redfern

Hi Anthony,

We have logged the samples on the attached CoC but have come across a few discrepancies:

- Extra samples received: BH13_0.1 (asbestos bag and soil jar) and BH02_0.9 (ASS bag). Please advise if you would like to schedule these samples for analysis; Yes please
- No asbestos bag received for BH01_0.5_191127 (sample # 002) – No asbestos analysis logged for this sample; Please analyse BH01_1.0 for asbestos
- No ASS bag for BH08_2.0_191127 (sample # 036) – No SPOCAS analysis logged for this sample. Please analyse BH08_0.9 for SPOCAS

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad

Client Services Officer, Environmental
Sydney

T +61 2 9437 9978
M +61 438 511 003
sepan.mahamad@alsglobal.com
Shop 2, 36 Hume St
Crows Nest NSW 2065 AUSTRALIA

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES1939690**

Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Contact	: Shane Colley
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: adavis@emmconsulting.com.au	E-mail	: ALSEnviro.Sydney@ALSGlobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: LAHC Redfern	Page	: 1 of 5
Order number	: J190730	Quote number	: ES2019EMGAMM0009 (SY/609/19)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: Lachlan Lewis		

Dates

Date Samples Received	: 27-Nov-2019 17:50	Issue Date	: 04-Dec-2019
Client Requested Due Date	: 11-Dec-2019	Scheduled Reporting Date	: **11-Dec-2019**

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 1.3'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 109 / 77

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- 4/12/19: This is an updated SRN which indicates updated analysis.
- **Extra samples BH13_0.1 and BH02_0.9 received by ALS Sydney, these have been placed on hold.**
- **Asbestos analysis has not been added for sample BH01_0.5_ 191127 as no seperate snap lock bag was received for asbestos analysis.**
- **SPOCAS analysis will not be conducted for sample BH08_2.0_191127 as no frozen snap lock bag was received for this sample.**
- **Samples QC200_191127, QC201)191128, QC202_191129 and QC203_191129 have been forwarded to Envirolab as per COC request.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Asbestos analysis will be conducted by ALS Newcastle.**
- SPOCAS analysis to be conducted by ALS Brisbane.
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - EA029 SPOCAS	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-23 SVOC/VOC
ES1939690-001	27-Nov-2019 00:00	BH01_0.1_191127			✓	✓		✓	
ES1939690-002	27-Nov-2019 00:00	BH01_0.5_191127		✓	✓			✓	✓
ES1939690-003	27-Nov-2019 00:00	BH01_1.0_191127				✓			
ES1939690-004	27-Nov-2019 00:00	BH01_2.0_191127	✓						
ES1939690-005	27-Nov-2019 00:00	BH01_2.5_191127		✓	✓			✓	
ES1939690-006	27-Nov-2019 00:00	BH02_0.1_191127			✓		✓	✓	✓
ES1939690-007	27-Nov-2019 00:00	BH02_0.5_191127			✓	✓		✓	
ES1939690-008	27-Nov-2019 00:00	BH02_1.5_191127	✓						
ES1939690-009	27-Nov-2019 00:00	BH02_2.5_191127		✓	✓			✓	
ES1939690-010	27-Nov-2019 00:00	BH03_0.1_191127	✓						
ES1939690-011	27-Nov-2019 00:00	BH03_0.5_191127			✓	✓		✓	
ES1939690-012	27-Nov-2019 00:00	BH03_1.5_191127		✓	✓			✓	✓
ES1939690-013	27-Nov-2019 00:00	BH03_2.5_191127		✓	✓			✓	
ES1939690-014	27-Nov-2019 00:00	BH04_0.1_191127			✓	✓		✓	✓
ES1939690-015	27-Nov-2019 00:00	BH04_0.5_191127			✓	✓		✓	
ES1939690-016	27-Nov-2019 00:00	BH04_1.5_191127		✓	✓			✓	
ES1939690-017	27-Nov-2019 00:00	BH04_2.5_191127	✓						
ES1939690-018	27-Nov-2019 00:00	BH05_0.1_191127			✓	✓		✓	
ES1939690-019	27-Nov-2019 00:00	BH05_0.5_191127	✓						
ES1939690-020	27-Nov-2019 00:00	BH05_0.9_191127		✓	✓		✓	✓	✓
ES1939690-021	27-Nov-2019 00:00	BH05_1.2_191127		✓	✓			✓	
ES1939690-022	27-Nov-2019 00:00	BH05_2.5_191127	✓						
ES1939690-023	27-Nov-2019 00:00	BH06_0.1_191127			✓		✓	✓	
ES1939690-024	27-Nov-2019 00:00	BH06_0.5_191127			✓	✓		✓	
ES1939690-025	27-Nov-2019 00:00	BH06_1.2_191127	✓						
ES1939690-026	27-Nov-2019 00:00	BH06_2.2_191127		✓	✓			✓	
ES1939690-027	27-Nov-2019 00:00	BH07_0.1_191127			✓		✓	✓	
ES1939690-028	27-Nov-2019 00:00	BH07_0.5_191127	✓						
ES1939690-029	27-Nov-2019 00:00	BH07_0.9_191127		✓	✓			✓	✓
ES1939690-030	27-Nov-2019 00:00	BH07_1.1_191127		✓	✓			✓	
ES1939690-031	27-Nov-2019 00:00	BH07_2.1_191127	✓						
ES1939690-032	27-Nov-2019 00:00	BH08_0.1_191127	✓						
ES1939690-033	27-Nov-2019 00:00	BH08_0.5_191127		✓	✓	✓		✓	
ES1939690-034	27-Nov-2019 00:00	BH08_0.9_191127	✓						
ES1939690-035	27-Nov-2019 00:00	BH08_1.1_191127			✓		✓	✓	✓

			(On Hold) SOIL No analysis requested	SOIL - EA029 SPOCAS	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-23 SVOC/VOC
ES1939690-036	27-Nov-2019 00:00	BH08_2.0_191127			✓			✓	
ES1939690-037	27-Nov-2019 00:00	BH09_0.5_191127			✓	✓		✓	
ES1939690-038	27-Nov-2019 00:00	BH09_1.0_191127		✓	✓			✓	
ES1939690-039	27-Nov-2019 00:00	BH09_1.5_191127	✓						
ES1939690-040	27-Nov-2019 00:00	BH09_2.5_191121	✓						
ES1939690-041	28-Nov-2019 00:00	BH10_ 0.1_181128			✓	✓		✓	
ES1939690-042	28-Nov-2019 00:00	BH10_0.5_181128	✓						
ES1939690-043	28-Nov-2019 00:00	BH10_1.0_181128			✓		✓	✓	✓
ES1939690-044	28-Nov-2019 00:00	BH10_1.5_181128	✓						
ES1939690-045	28-Nov-2019 00:00	BH10_2.5_1811 28		✓	✓			✓	
ES1939690-046	28-Nov-2019 00:00	MW11_0.1_191128	✓						
ES1939690-047	28-Nov-2019 00:00	MW11_0.5_191128			✓		✓	✓	
ES1939690-048	28-Nov-2019 00:00	MW11_1.2_1911 28	✓						
ES1939690-049	28-Nov-2019 00:00	MW11_2.1_191128	✓						
ES1939690-050	28-Nov-2019 00:00	MW11_3.5_1811 28		✓	✓			✓	✓
ES1939690-051	28-Nov-2019 00:00	MW11_5.0_181128		✓	✓			✓	
ES1939690-052	28-Nov-2019 00:00	BH12_0.1_181128			✓		✓	✓	✓
ES1939690-053	28-Nov-2019 00:00	BH12_0.5_191128	✓						
ES1939690-054	28-Nov-2019 00:00	BH12_1.5_191128		✓	✓			✓	
ES1939690-055	28-Nov-2019 00:00	BH12_2.5_191128		✓	✓			✓	
ES1939690-056	28-Nov-2019 00:00	BH13_0.5_191128			✓		✓	✓	
ES1939690-057	28-Nov-2019 00:00	BH13_1.5_191128		✓	✓			✓	
ES1939690-058	28-Nov-2019 00:00	BH13_2.5_191128			✓			✓	
ES1939690-059	28-Nov-2019 00:00	BH14_0.3_ 191128		✓	✓		✓	✓	✓
ES1939690-060	28-Nov-2019 00:00	BH14_1.0_191128			✓	✓		✓	
ES1939690-061	28-Nov-2019 00:00	BH14_2.0_ 191128	✓						
ES1939690-062	28-Nov-2019 00:00	BH14_3.0_191128		✓	✓			✓	
ES1939690-063	28-Nov-2019 00:00	BH15_0.2_181128			✓	✓		✓	
ES1939690-064	28-Nov-2019 00:00	BH15_0.5_191128	✓						
ES1939690-065	28-Nov-2019 00:00	BH15_2.5_191128		✓	✓			✓	
ES1939690-066	28-Nov-2019 00:00	BH16_0.1_191128			✓	✓		✓	
ES1939690-067	28-Nov-2019 00:00	BH16_0.5_191128	✓						
ES1939690-068	28-Nov-2019 00:00	BH16_0.9_191128			✓		✓	✓	✓
ES1939690-069	28-Nov-2019 00:00	BH16_ 1.2_191128	✓						
ES1939690-070	28-Nov-2019 00:00	BH16_1.7_191128		✓	✓			✓	
ES1939690-071	28-Nov-2019 00:00	BH16_2.5_191128	✓						
ES1939690-072	28-Nov-2019 00:00	BH17_0.1_191128			✓		✓	✓	✓
ES1939690-073	28-Nov-2019 00:00	BH17_0.5_191128		✓	✓	✓		✓	
ES1939690-074	28-Nov-2019 00:00	BH17_1.5_191128	✓						
ES1939690-075	28-Nov-2019 00:00	BH17_2.5_191128		✓	✓			✓	
ES1939690-076	29-Nov-2019 00:00	BH18_0.1_191129			✓		✓	✓	✓

			(On Hold) SOIL No analysis requested	SOIL - EA029 SPOCAS	SOIL - EA055-103 Moisture Content	SOIL - EA200 Asbestos Identification in Soils -	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - S-19 TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 metals	SOIL - S-23 SVOC/VOC
ES1939690-077	29-Nov-2019 00:00	BH18_0.5_191129			✓	✓		✓	
ES1939690-078	29-Nov-2019 00:00	BH18_1.8_191129	✓						
ES1939690-079	29-Nov-2019 00:00	BH18_2.8_191129		✓	✓			✓	
ES1939690-080	29-Nov-2019 00:00	BH19_0.1_191129	✓						
ES1939690-081	29-Nov-2019 00:00	BH19_0.5_191129			✓	✓		✓	✓
ES1939690-082	29-Nov-2019 00:00	BH19_1.0_191129	✓						
ES1939690-083	29-Nov-2019 00:00	BH19_1.5_191129		✓	✓			✓	
ES1939690-084	29-Nov-2019 00:00	BH19_2.5_191129		✓	✓			✓	
ES1939690-085	29-Nov-2019 00:00	MW20_0.1_191129	✓						
ES1939690-086	29-Nov-2019 00:00	MW20_0.5_191129			✓		✓	✓	
ES1939690-087	29-Nov-2019 00:00	MW20_1.0_191129	✓						
ES1939690-088	29-Nov-2019 00:00	MW20_1.8_191129		✓	✓	✓		✓	
ES1939690-089	29-Nov-2019 00:00	MW20_2.8_191129	✓						
ES1939690-090	29-Nov-2019 00:00	MW20_4.0_191129		✓	✓			✓	
ES1939690-091	29-Nov-2019 00:00	MW21_0.3_191129			✓		✓	✓	✓
ES1939690-092	29-Nov-2019 00:00	MW21_1.3_191129			✓	✓		✓	
ES1939690-093	29-Nov-2019 00:00	MW21_2.5_191129	✓						
ES1939690-094	29-Nov-2019 00:00	MW21_4.4_191129		✓	✓			✓	
ES1939690-095	27-Nov-2019 00:00	BH09_0.1_191127			✓	✓		✓	
ES1939690-096	28-Nov-2019 00:00	BH15_1.5_191128		✓	✓			✓	
ES1939690-099	27-Nov-2019 00:00	QC100_191127			✓				
ES1939690-100	27-Nov-2019 00:00	QC101_191127			✓				
ES1939690-101	29-Nov-2019 00:00	QC102_191129			✓				
ES1939690-102	29-Nov-2019 00:00	QC103_191129			✓				
ES1939690-108	29-Nov-2019 00:00	BH13_0.1			✓	✓		✓	
ES1939690-109	29-Nov-2019 00:00	BH02_0.9		✓					

Matrix: **SOIL**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	SOIL - S-05 TRH/BTEXN/8 Metals	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs
ES1939690-097	27-Nov-2019 00:00	TS_191127		✓
ES1939690-098	27-Nov-2019 00:00	Trip Spike Control		✓
ES1939690-099	27-Nov-2019 00:00	QC100_191127	✓	
ES1939690-100	27-Nov-2019 00:00	QC101_191127	✓	

			SOIL - S-05 TRH/BTEXN/8 Metals	SOIL - S-18 (NO MOIST) TRH(C6-C9)/BTEXN with No Moisture for TBs
ES1939690-101	29-Nov-2019 00:00	QC102_191129	✓	
ES1939690-102	29-Nov-2019 00:00	QC103_191129	✓	
ES1939690-106	26-Nov-2019 00:00	TB_191128		✓
ES1939690-107	26-Nov-2019 00:00	TB_191129		✓

Matrix: **WATER**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	WATER - W-05 TRH/BTEXN/8 Metals
ES1939690-103	27-Nov-2019 00:00	QC300_191127	✓
ES1939690-104	28-Nov-2019 00:00	QC301_191128	✓
ES1939690-105	29-Nov-2019 00:00	QC302_191129	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

A Davis

- *AU Certificate of Analysis - NATA (COA)	Email	adavis@emmconsulting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	adavis@emmconsulting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	adavis@emmconsulting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	adavis@emmconsulting.com.au
- A4 - AU Tax Invoice (INV)	Email	adavis@emmconsulting.com.au
- Chain of Custody (CoC) (COC)	Email	adavis@emmconsulting.com.au

ALL ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	emmconsulting@esdat.net

ALL INVOICES

- A4 - AU Tax Invoice (INV)	Email	finance@emmconsulting.com.au

Lachlan Lewis

- *AU Certificate of Analysis - NATA (COA)	Email	llewis@emmconsulting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	llewis@emmconsulting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	llewis@emmconsulting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	llewis@emmconsulting.com.au
- A4 - AU Tax Invoice (INV)	Email	llewis@emmconsulting.com.au
- Chain of Custody (CoC) (COC)	Email	llewis@emmconsulting.com.au

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1939690**	Page	: 1 of 144
Amendment	: **2**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Contact	: Customer Services ES
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 27-Nov-2019 17:50
Order number	: J190730	Date Analysis Commenced	: 04-Dec-2019
C-O-C number	: ----	Issue Date	: 07-Feb-2020 14:49
Sampler	: Lachlan Lewis		
Site	: ----		
Quote number	: SY/609/19		
No. of samples received	: 109		
No. of samples analysed	: 77		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Descriptive Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alana Smylie	Asbestos Identifier	Newcastle - Asbestos, Mayfield West, NSW
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Kim McCabe	Senior Inorganic Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

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

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: LOR raised for particular samples due to high moisture content.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- Amendment (07/02/2020): This report has been amended to allow a change in ID for sample 108 to 'BH13_0.3_191128'. All analysis results are as per the previous report.
- EG005: Poor precision was obtained for Lead on ES1939690-30. Results have been confirmed by re-extraction and reanalysis.
- EP066 : Particular samples raised LOR due to high amount of moistures is present.
- EP068: Positive results have been confirmed by re-extraction and re-analysis.
- EP071: LOR of samples raised due to the high amount of moisture present.
- EP071: Results of samples QC100_191127, QC101_191127, QC102_191127 and QC103_191127 have been confirmed by re-extraction and re-analysis.
- EG035: Positive Hg result for ES1939690 #20 has been confirmed by reanalysis.
- EP075(SIM): LOR raised due to the high amount of moisture present.
- EP068: LOR for sample raised due to the high amount of moisture present.
- Amendment (31/01/2020):This report has been amended following changes to the analystical data reported for sample MW11_0.5_191128 and MW11_5.0_181128 for PAH/PHENOL as per client request.
- EP080: Surrogate recovery bias low due to sample matrix interferences, confirmed by re-extraction and re-analysis.
- EP080: Poor duplicate precision due to sample heterogeneity.
- EP068: Particular samples required dilution due to matrix interferences. LOR values have been adjusted accordingly.
- EP066 : Particular samples required dilution due to sample matrix . LOR values have been adjusted accordingly.
- ASS: EA029 (SPOCAS): Laboratory determinations of ANC needs to be corroborated by effectiveness of the measured ANC in relation to incubation ANC. Unless corroborated, the results of ANC testing should be discounted when determining Net Acidity for comparison with action criteria, or for the determination of the acidity hazard and required liming amounts.
- EP075: 'Sum of PAH' is the sum of the USEPA 16 priority PAHs
- EA200N: Asbestos weights and percentages are not covered under the Scope of NATA Accreditation.
  Weights of Asbestos are based on extracted bulk asbestos, fibre bundles, and/or ACM and do not include respirable fibres (if present)
  The Asbestos (Fines and Fibrous) weight is calculated from the extracted Fibrous Asbestos and Asbestos Fines as an equivalent weight of 100% Asbestos
  Percentages for Asbestos content in ACM are based on the 2013 NEPM default values.
  All calculations of percentage Asbestos under this method are approximate and should be used as a guide only.

- ASS: EA029 (SPOCAS): Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO3) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from kg/t dry weight to kg/m3 in-situ soil, multiply reported results x wet bulk density of soil in t/m3.
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200N: ALS laboratory procedures and methods used for the identification and quantitation of asbestos are consistent with AS4964-2004 and the requirements of the 2013 NEPM for Assessment of Site Contamination
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	9.1	----	4.5	----
pH OX (23B)	----	0.1	pH Unit	----	7.6	----	1.6	----
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	<2	----	171	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	<2	----	6940	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	<2	----	6770	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	<0.020	----	0.274	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	<0.020	----	11.1	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	<0.020	----	10.9	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	<0.020	----	0.060	----
Peroxide Sulfur (23De)	----	0.020	% S	----	<0.020	----	2.67	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	<0.020	----	2.61	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	<10	----	1630	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.203	----	0.363	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.612	----	0.421	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	0.409	----	0.058	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	204	----	29	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	0.328	----	0.046	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	<0.020	----	0.223	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	<0.020	----	0.223	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	<0.020	----	<0.020	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	<10	----	<10	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	<0.020	----	<0.020	----
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO3	----	1.38	----	----	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	----	275	----	----	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	0.441	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity - Continued								
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	----	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	----	<0.02	----	2.88	----
Net Acidity (acidity units)	----	10	mole H+ / t	----	<10	----	1800	----
Liming Rate	----	1	kg CaCO3/t	----	<1	----	135	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	<0.02	----	2.88	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	<10	----	1800	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	<1	----	135	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	9.6	8.8	----	82.6	11.9
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	No	----	No
Asbestos (Trace)	1332-21-4	5	Fibres	No	----	No	----	No
Asbestos Type	1332-21-4	-	--	-	----	-	----	-
Synthetic Mineral Fibre	----	0.1	g/kg	No	----	No	----	No
Organic Fibre	----	0.1	g/kg	No	----	No	----	No
Sample weight (dry)	----	0.01	g	410	----	346	----	326
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	A. SMYLIE	----	A. SMYLIE
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	----	----	----	<0.0004
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	----	----	----	<0.001
ø Asbestos Containing Material	1332-21-4	0.1	g	----	----	----	----	<0.1
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	----	----	----	<0.01
ø Weight Used for % Calculation	----	0.0001	kg	----	----	----	----	0.326
ø Fibrous Asbestos >7mm	----	0.0004	g	----	----	----	----	<0.0004
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	----	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	<1	<1
Chromium	7440-47-3	2	mg/kg	5	6	----	7	5
Copper	7440-50-8	5	mg/kg	11	26	----	5	15
Lead	7439-92-1	5	mg/kg	104	128	----	<5	198
Nickel	7440-02-0	2	mg/kg	2	5	----	5	3

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Zinc	7440-66-6	5	mg/kg		**121**	**147**	----	**7**	**301**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		**0.1**	**0.8**	----	<0.1	**0.2**
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	----	<0.7	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	**0.15**
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	----	<0.12	**0.54**
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	----	<0.05	**0.91**
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	----	<0.12	**0.78**
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	----	<0.12	**0.13**
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	----	<0.07	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	----	<0.5	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	----	<0.5	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	----	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	----	<0.5	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	----	<0.5	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	----	<0.5	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	----	<0.12	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		----	<0.5	----	----	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg		----	<0.5	----	----	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg		----	<0.5	----	----	<0.5
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	<0.5	----	----	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	<0.5	----	----	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	<0.5	----	----	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	<0.5	----	----	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg		----	<0.5	----	----	<0.5
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		----	<5	----	----	<5
2-Butanone (MEK)	78-93-3	5	mg/kg		----	<5	----	----	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	<5	----	----	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	<5	----	----	<5
EP074C: Sulfonated Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP074C: Sulfonated Compounds - Continued									
Carbon disulfide	75-15-0	0.5	mg/kg		----	<0.5	----	----	<0.5
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	<0.5	----	----	<0.5
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	<0.5	----	----	<0.5
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	<0.5	----	----	<0.5
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	<5	----	----	<5
Chloromethane	74-87-3	5	mg/kg		----	<5	----	----	<5
Vinyl chloride	75-01-4	5	mg/kg		----	<5	----	----	<5
Bromomethane	74-83-9	5	mg/kg		----	<5	----	----	<5
Chloroethane	75-00-3	5	mg/kg		----	<5	----	----	<5
Trichlorofluoromethane	75-69-4	5	mg/kg		----	<5	----	----	<5
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Iodomethane	74-88-4	0.5	mg/kg		----	<0.5	----	----	<0.5
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	<0.5	----	----	<0.5
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	<0.5	----	----	<0.5
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	<0.5	----	----	<0.5
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	<0.5	----	----	<0.5
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	<0.5	----	----	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	<0.5	----	----	<0.5
Trichloroethene	79-01-6	0.5	mg/kg		----	<0.5	----	----	<0.5
Dibromomethane	74-95-3	0.5	mg/kg		----	<0.5	----	----	<0.5
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		----	<0.5	----	----	<0.5
1.3-Dichloropropane	142-28-9	0.5	mg/kg		----	<0.5	----	----	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg		----	<0.5	----	----	<0.5
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		----	<0.5	----	----	<0.5
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		----	<0.5	----	----	<0.5
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		----	<0.5	----	----	<0.5
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg		----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		----	<0.5	----	----	<0.5
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		----	<0.5	----	----	<0.5
Bromobenzene	108-86-1	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Chlorotoluene	106-43-4	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		----	<0.5	----	----	<0.5
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		----	<0.5	----	----	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg		----	<0.5	----	----	<0.5
Bromoform	75-25-2	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	----	<4	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	----	<4	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	**0.5**	----	<2.0	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	**2.7**	----	<2.0	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	**0.7**	----	<2.0	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	**4.0**	----	<2.0	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	**4.1**	----	<2.0	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	**1.7**	----	<2.0	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	**1.4**	----	<2.0	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	**1.6**	----	<2.0	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	**0.6**	----	<2.0	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	**1.5**	----	<2.0	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	**0.6**	----	<2.0	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	----	<2.0	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	**0.8**	----	<2.0	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	**20.2**	----	<1.0	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	**2.0**	----	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**2.2**	----	**2.4**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**2.5**	----	**4.8**	**1.2**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Chloronaphthalene	91-58-7	0.5	mg/kg		----	<0.5	----	----	<0.5
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		----	<0.5	----	----	<0.5
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		----	<0.5	----	----	<0.5
3-Methylcholanthrene	56-49-5	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		----	<0.5	----	----	<0.5
Diethyl phthalate	84-66-2	0.5	mg/kg		----	<0.5	----	----	<0.5
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		----	<0.5	----	----	<0.5
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		----	<0.5	----	----	<0.5
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		----	<5.0	----	----	<5.0
Di-n-octylphthalate	117-84-0	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		----	<0.5	----	----	<0.5
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		----	<0.5	----	----	<0.5
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		----	<1.0	----	----	<1.0
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		----	<0.5	----	----	<0.5
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		----	<0.5	----	----	<0.5
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		----	<0.5	----	----	<0.5
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP075D: Nitrosamines - Continued									
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		----	<1.0	----	----	<1.0
Methapyrilene	91-80-5	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		----	<0.5	----	----	<0.5
Acetophenone	98-86-2	0.5	mg/kg		----	<0.5	----	----	<0.5
Nitrobenzene	98-95-3	0.5	mg/kg		----	<0.5	----	----	<0.5
Isophorone	78-59-1	0.5	mg/kg		----	<0.5	----	----	<0.5
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		----	<1.0	----	----	<1.0
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		----	<1.0	----	----	<1.0
1-Naphthylamine	134-32-7	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		----	<0.5	----	----	<0.5
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		----	<0.5	----	----	<0.5
Azobenzene	103-33-3	1	mg/kg		----	<1	----	----	<1
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Phenacetin	62-44-2	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Aminobiphenyl	92-67-1	0.5	mg/kg		----	<0.5	----	----	<0.5
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		----	<0.5	----	----	<0.5
Pronamide	23950-58-5	0.5	mg/kg		----	<0.5	----	----	<0.5
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		----	<0.5	----	----	<0.5
Chlorobenzilate	510-15-6	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		----	<0.5	----	----	<0.5
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		----	<0.5	----	----	<0.5
Hexachloroethane	67-72-1	0.5	mg/kg		----	<0.5	----	----	<0.5
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		----	<0.5	----	----	<0.5
Hexachloropropylene	1888-71-7	0.5	mg/kg		----	<0.5	----	----	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg		----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP075G: Chlorinated Hydrocarbons - Continued									
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		----	<2.5	----	----	<2.5
Pentachlorobenzene	608-93-5	0.5	mg/kg		----	<0.5	----	----	<0.5
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		----	<1.0	----	----	<1.0
EP075H: Anilines and Benzidines									
Aniline	62-53-3	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Chloroaniline	106-47-8	0.5	mg/kg		----	<0.5	----	----	<0.5
2-Nitroaniline	88-74-4	1.0	mg/kg		----	<1.0	----	----	<1.0
3-Nitroaniline	99-09-2	1.0	mg/kg		----	<1.0	----	----	<1.0
Dibenzofuran	132-64-9	0.5	mg/kg		----	<0.5	----	----	<0.5
4-Nitroaniline	100-01-6	0.5	mg/kg		----	<0.5	----	----	<0.5
Carbazole	86-74-8	0.5	mg/kg		----	<0.5	----	----	<0.5
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		----	<0.5	----	----	<0.5
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		----	<0.5	----	----	<0.5
beta-BHC	319-85-7	0.5	mg/kg		----	<0.5	----	----	<0.5
gamma-BHC	58-89-9	0.5	mg/kg		----	<0.5	----	----	<0.5
delta-BHC	319-86-8	0.5	mg/kg		----	<0.5	----	----	<0.5
Heptachlor	76-44-8	0.5	mg/kg		----	<0.5	----	----	<0.5
Aldrin	309-00-2	0.5	mg/kg		----	<0.5	----	----	<0.5
Heptachlor epoxide	1024-57-3	0.5	mg/kg		----	<0.5	----	----	**1.0**
alpha-Endosulfan	959-98-8	0.5	mg/kg		----	<0.5	----	----	<0.5
4.4`-DDE	72-55-9	0.5	mg/kg		----	<0.5	----	----	<0.5
Dieldrin	60-57-1	0.5	mg/kg		----	<0.5	----	----	<0.5
Endrin	72-20-8	0.5	mg/kg		----	<0.5	----	----	<0.5
beta-Endosulfan	33213-65-9	0.5	mg/kg		----	<0.5	----	----	<0.5
4.4`-DDD	72-54-8	0.5	mg/kg		----	<0.5	----	----	<0.5
Endosulfan sulfate	1031-07-8	0.5	mg/kg		----	<0.5	----	----	<0.5
4.4`-DDT	50-29-3	1.0	mg/kg		----	<1.0	----	----	<1.0
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		----	<0.5	----	----	<0.5
Dimethoate	60-51-5	0.5	mg/kg		----	<0.5	----	----	<0.5
Diazinon	333-41-5	0.5	mg/kg		----	<0.5	----	----	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		----	<0.5	----	----	<0.5
Malathion	121-75-5	0.5	mg/kg		----	<0.5	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Fenthion	55-38-9	0.5	mg/kg		----	<0.5	----	----	<0.5
Chlorpyrifos	2921-88-2	0.5	mg/kg		----	<0.5	----	----	<0.5
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		----	<0.5	----	----	<0.5
Chlorfenvinphos	470-90-6	0.5	mg/kg		----	<0.5	----	----	<0.5
Prothiofos	34643-46-4	0.5	mg/kg		----	<0.5	----	----	<0.5
Ethion	563-12-2	0.5	mg/kg		----	<0.5	----	----	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	----	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	<110	<50
C15 - C28 Fraction	----	100	mg/kg		<100	**100**	----	**7540**	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	**4140**	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	**100**	----	**11700**	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	----	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	<110	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	**140**	----	**11100**	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	**640**	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	**140**	----	**11700**	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	----	<110	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	<0.5	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	----	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	----	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	----	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	----	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**71.8**	**92.1**	----	**71.9**	**85.0**
EP068S: Organochlorine Pesticide Surrogate									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.1_191127	BH01_0.5_191127	BH01_1.0_191127	BH01_2.5_191127	BH02_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-001	ES1939690-002	ES1939690-003	ES1939690-005	ES1939690-006
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%		83.0	90.7	----	71.1	96.0
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		76.3	91.5	----	110	105
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		----	96.5	----	----	98.6
Toluene-D8	2037-26-5	0.5	%		----	105	----	----	109
4-Bromofluorobenzene	460-00-4	0.5	%		----	104	----	----	104
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		78.2	78.6	----	80.9	79.0
2-Chlorophenol-D4	93951-73-6	0.5	%		88.4	87.4	----	91.7	88.5
2.4.6-Tribromophenol	118-79-6	0.5	%		71.6	63.6	----	84.2	70.0
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		106	108	----	113	109
Anthracene-d10	1719-06-8	0.5	%		99.6	95.8	----	103	101
4-Terphenyl-d14	1718-51-0	0.5	%		90.9	82.8	----	89.3	91.6
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		----	62.1	----	----	60.4
Phenol-d6	13127-88-3	0.5	%		----	95.2	----	----	84.3
2-Chlorophenol-D4	93951-73-6	0.5	%		----	112	----	----	89.6
2.4.6-Tribromophenol	118-79-6	0.5	%		----	98.0	----	----	99.3
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		----	113	----	----	75.8
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		----	102	----	----	96.1
2-Fluorobiphenyl	321-60-8	0.5	%		----	72.3	----	----	119
Anthracene-d10	1719-06-8	0.5	%		----	110	----	----	109
4-Terphenyl-d14	1718-51-0	0.5	%		----	116	----	----	112
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		91.2	96.9	----	89.0	98.7
Toluene-D8	2037-26-5	0.2	%		85.6	97.3	----	97.0	102
4-Bromofluorobenzene	460-00-4	0.2	%		85.1	100	----	99.2	100

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	4.5	----	6.3	4.5
pH OX (23B)	----	0.1	pH Unit	----	1.8	----	2.4	2.7
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	199	----	5	70
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	5380	----	743	581
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	5180	----	738	511
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	0.319	----	<0.020	0.113
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	8.63	----	1.19	0.932
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	8.31	----	1.18	0.819
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	0.036	----	<0.020	<0.020
Peroxide Sulfur (23De)	----	0.020	% S	----	1.56	----	0.919	0.168
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	1.52	----	0.919	0.168
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	951	----	573	105
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.525	----	0.876	0.062
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.310	----	0.530	0.062
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	<0.020	----	<0.020	<0.020
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	<10	----	<10	<10
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	<0.020	----	<0.020	<0.020
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	0.212	----	0.050	0.102
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	0.142	----	0.106	0.102
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	<0.020	----	0.056	<0.020
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	<10	----	46	<10
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	<0.020	----	0.074	<0.020
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	----	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	1.84	----	0.93	0.28
Net Acidity (acidity units)	----	10	mole H+ / t	----	1150	----	578	176
Liming Rate	----	1	kg CaCO3/t	----	86	----	43	13

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting - Continued									
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		----	1.84	----	0.93	0.28
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		----	1150	----	578	176
Liming Rate excluding ANC	----	1	kg CaCO3/t		----	86	----	43	13
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		9.1	84.6	23.4	40.6	83.8
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		No	----	No	----	----
Asbestos (Trace)	1332-21-4	5	Fibres		No	----	No	----	----
Asbestos Type	1332-21-4	-	--		-	----	-	----	----
Synthetic Mineral Fibre	----	0.1	g/kg		No	----	No	----	----
Organic Fibre	----	0.1	g/kg		No	----	No	----	----
Sample weight (dry)	----	0.01	g		381	----	347	----	----
APPROVED IDENTIFIER:	----	-	--		A. SMYLIE	----	A. SMYLIE	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		5	6	<2	10	10
Copper	7440-50-8	5	mg/kg		7	6	<5	14	8
Lead	7439-92-1	5	mg/kg		75	8	27	68	<5
Nickel	7440-02-0	2	mg/kg		<2	6	<2	9	14
Zinc	7440-66-6	5	mg/kg		118	14	94	77	14
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		0.2	0.2	<0.1	0.2	0.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.7	<0.1	<0.1	<0.7
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Heptachlor epoxide	1024-57-3	0.05	mg/kg		0.27	<0.12	<0.05	<0.05	<0.12

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
^ Total Chlordane (sum)	----	0.05	mg/kg		**0.39**	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		**0.33**	<0.12	<0.05	<0.05	<0.12
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
cis-Chlordane	5103-71-9	0.05	mg/kg		**0.06**	<0.12	<0.05	<0.05	<0.12
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.07	<0.05	<0.05	<0.07
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.5	<0.2	<0.2	<0.5
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.5	<0.2	<0.2	<0.5
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.5	<0.2	<0.2	<0.5
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.5	<0.2	<0.2	<0.5
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.5	<0.2	<0.2	<0.5
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.12	<0.05	<0.05	<0.12
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		----	----	----	<0.5	----
Isopropylbenzene	98-82-8	0.5	mg/kg		----	----	----	<0.5	----
n-Propylbenzene	103-65-1	0.5	mg/kg		----	----	----	<0.5	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	----	----	<0.5	----
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	----	----	<0.5	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	----	----	<0.5	----
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	----	----	<0.5	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	----	----	<0.5	----
n-Butylbenzene	104-51-8	0.5	mg/kg		----	----	----	<0.5	----
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		----	----	----	<5	----
2-Butanone (MEK)	78-93-3	5	mg/kg		----	----	----	<5	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	----	----	<5	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	----	----	<5	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		----	----	----	<0.5	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	----	----	<0.5	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	----	----	<0.5	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	----	----	<0.5	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	----	----	<5	----
Chloromethane	74-87-3	5	mg/kg		----	----	----	<5	----
Vinyl chloride	75-01-4	5	mg/kg		----	----	----	<5	----
Bromomethane	74-83-9	5	mg/kg		----	----	----	<5	----
Chloroethane	75-00-3	5	mg/kg		----	----	----	<5	----
Trichlorofluoromethane	75-69-4	5	mg/kg		----	----	----	<5	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
Iodomethane	74-88-4	0.5	mg/kg		----	----	----	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	----	----	<0.5	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	----	----	<0.5	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	----	----	<0.5	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	----	----	<0.5	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	----	----	<0.5	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	----	----	<0.5	----
Trichloroethene	79-01-6	0.5	mg/kg		----	----	----	<0.5	----
Dibromomethane	74-95-3	0.5	mg/kg		----	----	----	<0.5	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		----	----	----	<0.5	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		----	----	----	<0.5	----
Tetrachloroethene	127-18-4	0.5	mg/kg		----	----	----	<0.5	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		----	----	----	<0.5	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		----	----	----	<0.5	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		----	----	----	<0.5	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		----	----	----	<0.5	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		----	----	----	<0.5	----
Pentachloroethane	76-01-7	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		----	----	----	<0.5	----
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		----	----	----	<0.5	----
Bromobenzene	108-86-1	0.5	mg/kg		----	----	----	<0.5	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		----	----	----	<0.5	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		----	----	----	<0.5	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		----	----	----	<0.5	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		----	----	----	<0.5	----
Bromodichloromethane	75-27-4	0.5	mg/kg		----	----	----	<0.5	----
Dibromochloromethane	124-48-1	0.5	mg/kg		----	----	----	<0.5	----
Bromoform	75-25-2	0.5	mg/kg		----	----	----	<0.5	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP075(SIM)A: Phenolic Compounds - Continued									
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<4	<1	<1	<4
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Pentachlorophenol	87-86-5	2	mg/kg		<2	<4	<2	<2	<4
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Fluorene	86-73-7	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<2.0	**1.4**	<0.5	<2.0
Anthracene	120-12-7	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<2.0	**1.8**	<0.5	<2.0
Pyrene	129-00-0	0.5	mg/kg		<0.5	<2.0	**2.0**	<0.5	<2.0
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<2.0	**0.8**	<0.5	<2.0
Chrysene	218-01-9	0.5	mg/kg		<0.5	<2.0	**0.6**	<0.5	<2.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<2.0	**0.6**	<0.5	<2.0
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<2.0	<0.5	<0.5	<2.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<1.0	**7.2**	<0.5	<1.0
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	**0.7**	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**2.4**	**1.0**	**0.6**	**2.4**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**4.8**	**1.3**	**1.2**	**4.8**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		----	----	----	<0.5	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP075B: Polynuclear Aromatic Hydrocarbons - Continued									
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		----	----	----	<0.5	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		----	----	----	<0.5	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		----	----	----	<0.5	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		----	----	----	<0.5	----
Diethyl phthalate	84-66-2	0.5	mg/kg		----	----	----	<0.5	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		----	----	----	<0.5	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		----	----	----	<0.5	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		----	----	----	<5.0	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		----	----	----	<0.5	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		----	----	----	<1.0	----
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		----	----	----	<1.0	----
Methapyrilene	91-80-5	0.5	mg/kg		----	----	----	<0.5	----
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		----	----	----	<0.5	----
Acetophenone	98-86-2	0.5	mg/kg		----	----	----	<0.5	----
Nitrobenzene	98-95-3	0.5	mg/kg		----	----	----	<0.5	----
Isophorone	78-59-1	0.5	mg/kg		----	----	----	<0.5	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		----	----	----	<1.0	----
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		----	----	----	<1.0	----
1-Naphthylamine	134-32-7	0.5	mg/kg		----	----	----	<0.5	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		----	----	----	<0.5	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		----	----	----	<0.5	----
Azobenzene	103-33-3	1	mg/kg		----	----	----	<1	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		----	----	----	<0.5	----
Phenacetin	62-44-2	0.5	mg/kg		----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
				Result	Result	Result	Result	Result
EP075E: Nitroaromatics and Ketones - Continued								
4-Aminobiphenyl	92-67-1	0.5	mg/kg	----	----	----	<0.5	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg	----	----	----	<0.5	----
Pronamide	23950-58-5	0.5	mg/kg	----	----	----	<0.5	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg	----	----	----	<0.5	----
Chlorobenzilate	510-15-6	0.5	mg/kg	----	----	----	<0.5	----
EP075F: Haloethers								
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg	----	----	----	<0.5	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg	----	----	----	<0.5	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg	----	----	----	<0.5	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg	----	----	----	<0.5	----
EP075G: Chlorinated Hydrocarbons								
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	----	----	----	<0.5	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	----	----	----	<0.5	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	----	----	----	<0.5	----
Hexachloroethane	67-72-1	0.5	mg/kg	----	----	----	<0.5	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	----	----	----	<0.5	----
Hexachloropropylene	1888-71-7	0.5	mg/kg	----	----	----	<0.5	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg	----	----	----	<0.5	----
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg	----	----	----	<2.5	----
Pentachlorobenzene	608-93-5	0.5	mg/kg	----	----	----	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg	----	----	----	<1.0	----
EP075H: Anilines and Benzidines								
Aniline	62-53-3	0.5	mg/kg	----	----	----	<0.5	----
4-Chloroaniline	106-47-8	0.5	mg/kg	----	----	----	<0.5	----
2-Nitroaniline	88-74-4	1.0	mg/kg	----	----	----	<1.0	----
3-Nitroaniline	99-09-2	1.0	mg/kg	----	----	----	<1.0	----
Dibenzofuran	132-64-9	0.5	mg/kg	----	----	----	<0.5	----
4-Nitroaniline	100-01-6	0.5	mg/kg	----	----	----	<0.5	----
Carbazole	86-74-8	0.5	mg/kg	----	----	----	<0.5	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg	----	----	----	<0.5	----
EP075I: Organochlorine Pesticides								
alpha-BHC	319-84-6	0.5	mg/kg	----	----	----	<0.5	----
beta-BHC	319-85-7	0.5	mg/kg	----	----	----	<0.5	----
gamma-BHC	58-89-9	0.5	mg/kg	----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
delta-BHC	319-86-8	0.5	mg/kg		----	----	----	<0.5	----
Heptachlor	76-44-8	0.5	mg/kg		----	----	----	<0.5	----
Aldrin	309-00-2	0.5	mg/kg		----	----	----	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		----	----	----	<0.5	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		----	----	----	<0.5	----
4.4`-DDE	72-55-9	0.5	mg/kg		----	----	----	<0.5	----
Dieldrin	60-57-1	0.5	mg/kg		----	----	----	<0.5	----
Endrin	72-20-8	0.5	mg/kg		----	----	----	<0.5	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		----	----	----	<0.5	----
4.4`-DDD	72-54-8	0.5	mg/kg		----	----	----	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		----	----	----	<0.5	----
4.4`-DDT	50-29-3	1.0	mg/kg		----	----	----	<1.0	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		----	----	----	<0.5	----
Dimethoate	60-51-5	0.5	mg/kg		----	----	----	<0.5	----
Diazinon	333-41-5	0.5	mg/kg		----	----	----	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		----	----	----	<0.5	----
Malathion	121-75-5	0.5	mg/kg		----	----	----	<0.5	----
Fenthion	55-38-9	0.5	mg/kg		----	----	----	<0.5	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		----	----	----	<0.5	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		----	----	----	<0.5	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		----	----	----	<0.5	----
Prothiofos	34643-46-4	0.5	mg/kg		----	----	----	<0.5	----
Ethion	563-12-2	0.5	mg/kg		----	----	----	<0.5	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<110	<50	<50	<110
C15 - C28 Fraction	----	100	mg/kg		<100	**5200**	<100	<100	**1130**
C29 - C36 Fraction	----	100	mg/kg		<100	**3320**	<100	<100	**1310**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	**8520**	<50	<50	**2440**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
>C10 - C16 Fraction	----	50	mg/kg		<50	<110	<50	<50	<110
>C16 - C34 Fraction	----	100	mg/kg		<100	**7950**	<100	<100	**2180**
>C34 - C40 Fraction	----	100	mg/kg		<100	**680**	<100	<100	**370**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	**8630**	<50	<50	**2550**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<110	<50	<50	<110
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.5	<0.2	<0.2	<0.5
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**121**	**90.5**	**90.3**	**80.4**	**70.2**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**99.0**	**94.8**	**84.3**	**71.8**	**88.3**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**106**	**107**	**91.9**	**83.0**	**108**
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		----	----	----	**85.6**	----
Toluene-D8	2037-26-5	0.5	%		----	----	----	**90.9**	----
4-Bromofluorobenzene	460-00-4	0.5	%		----	----	----	**87.0**	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**75.4**	**80.6**	**75.8**	**71.5**	**81.1**
2-Chlorophenol-D4	93951-73-6	0.5	%		**91.5**	**91.3**	**90.6**	**84.7**	**92.9**
2.4.6-Tribromophenol	118-79-6	0.5	%		**79.9**	**81.4**	**78.1**	**65.1**	**85.6**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**110**	**111**	**110**	**105**	**114**
Anthracene-d10	1719-06-8	0.5	%		**102**	**106**	**102**	**96.7**	**104**
4-Terphenyl-d14	1718-51-0	0.5	%		**92.8**	**97.5**	**92.0**	**88.8**	**90.5**
EP075S: Acid Extractable Surrogates									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH02_0.5_191127	BH02_2.5_191127	BH03_0.5_191127	BH03_1.5_191127	BH03_2.5_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-007	ES1939690-009	ES1939690-011	ES1939690-012	ES1939690-013
					Result	Result	Result	Result	Result
EP075S: Acid Extractable Surrogates - Continued									
2-Fluorophenol	367-12-4	0.5	%		----	----	----	56.5	----
Phenol-d6	13127-88-3	0.5	%		----	----	----	82.3	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	110	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	97.8	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		----	----	----	92.2	----
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		----	----	----	81.7	----
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	115	----
Anthracene-d10	1719-06-8	0.5	%		----	----	----	107	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	114	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		86.3	92.0	106	86.1	97.7
Toluene-D8	2037-26-5	0.2	%		87.5	103	94.3	84.3	110
4-Bromofluorobenzene	460-00-4	0.2	%		86.5	104	94.7	84.6	110

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	----	**4.3**	----	**6.8**
pH OX (23B)	----	0.1	pH Unit	----	----	**1.8**	----	**3.8**
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	----	**312**	----	<2
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	**4730**	----	<2
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	**4420**	----	<2
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	**0.500**	----	<0.020
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	**7.58**	----	<0.020
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	**7.08**	----	<0.020
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	**0.036**	----	<0.020
Peroxide Sulfur (23De)	----	0.020	% S	----	----	**1.57**	----	**0.045**
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	**1.54**	----	**0.045**
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	**958**	----	**28**
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	**0.640**	----	**0.225**
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	**0.596**	----	**0.267**
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	<0.020	----	**0.042**
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	<10	----	**21**
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	<0.020	----	**0.034**
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	**0.289**	----	<0.020
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	**0.289**	----	<0.020
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	<0.020	----	<0.020
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	<10	----	<10
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	<0.020	----	<0.020
EA029-G: Retained Acidity								
HCl Extractable Sulfur (20Be)	----	0.020	% S	----	----	<0.020	----	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	----	----	<0.020	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	----	<10	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	----	----	<0.020	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		----	----	1.5	----	1.5
Net Acidity (sulfur units)	----	0.02	% S		----	----	2.04	----	<0.02
Net Acidity (acidity units)	----	10	mole H+ / t		----	----	1270	----	<10
Liming Rate	----	1	kg CaCO3/t		----	----	95	----	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		----	----	2.04	----	0.04
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		----	----	1270	----	28
Liming Rate excluding ANC	----	1	kg CaCO3/t		----	----	95	----	2
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		5.5	6.5	14.3	5.1	10.9
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		No	No	----	No	No
Asbestos (Trace)	1332-21-4	5	Fibres		No	No	----	No	No
Asbestos Type	1332-21-4	-	--		-	-	----	-	-
Synthetic Mineral Fibre	----	0.1	g/kg		No	No	----	No	No
Organic Fibre	----	0.1	g/kg		No	No	----	No	No
Sample weight (dry)	----	0.01	g		464	453	----	514	225
APPROVED IDENTIFIER:	----	-	--		A. SMYLIE	A. SMYLIE	----	A. SMYLIE	A. SMYLIE
EA200N: Asbestos Quantification (non-NATA)									
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g		----	----	----	----	<0.0004
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)		----	----	----	----	<0.001
ø Asbestos Containing Material	1332-21-4	0.1	g		----	----	----	----	<0.1
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)		----	----	----	----	<0.01
ø Weight Used for % Calculation	----	0.0001	kg		----	----	----	----	0.225
ø Fibrous Asbestos >7mm	----	0.0004	g		----	----	----	----	<0.0004
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	6
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		4	4	11	9	12
Copper	7440-50-8	5	mg/kg		20	15	10	33	12
Lead	7439-92-1	5	mg/kg		140	245	68	610	292
Nickel	7440-02-0	2	mg/kg		<2	<2	10	7	6
Zinc	7440-66-6	5	mg/kg		146	157	30	459	50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		**0.2**	**0.2**	**0.2**	**0.5**	**1.4**
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	**0.20**	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	**0.24**	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	**0.66**	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	**0.58**	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	**0.08**	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg		<0.5	----	----	----	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg		<0.5	----	----	----	<0.5
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		<0.5	----	----	----	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		<0.5	----	----	----	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg		<0.5	----	----	----	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg		<0.5	----	----	----	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg		<0.5	----	----	----	<0.5
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		<5	----	----	----	<5
2-Butanone (MEK)	78-93-3	5	mg/kg		<5	----	----	----	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		<5	----	----	----	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg		<5	----	----	----	<5
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		<0.5	----	----	----	<0.5
EP074D: Fumigants									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP074D: Fumigants - Continued									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	----	----	----	<0.5
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	----	----	----	<0.5
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	----	----	----	<0.5
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	----	----	----	<5
Chloromethane	74-87-3	5	mg/kg		<5	----	----	----	<5
Vinyl chloride	75-01-4	5	mg/kg		<5	----	----	----	<5
Bromomethane	74-83-9	5	mg/kg		<5	----	----	----	<5
Chloroethane	75-00-3	5	mg/kg		<5	----	----	----	<5
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	----	----	----	<5
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Iodomethane	74-88-4	0.5	mg/kg		<0.5	----	----	----	<0.5
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	----	----	----	<0.5
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	----	----	----	<0.5
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	----	----	----	<0.5
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	----	----	----	<0.5
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	----	----	----	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	----	----	----	<0.5
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	----	----	----	<0.5
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	----	----	----	<0.5
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	----	----	----	<0.5
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	----	----	----	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	----	----	----	<0.5
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	----	----	----	<0.5
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	----	----	----	<0.5
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	----	----	----	<0.5
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	----	----	----	<0.5
EP074F: Halogenated Aromatic Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Bromobenzene	108-86-1	0.5	mg/kg		<0.5	----	----	----	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Chlorotoluene	106-43-4	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		<0.5	----	----	----	<0.5
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg		<0.5	----	----	----	<0.5
Bromoform	75-25-2	0.5	mg/kg		<0.5	----	----	----	<0.5
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	**0.8**	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	**4.5**	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	**1.0**	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	**6.3**	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	**6.0**	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	**2.5**	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	**2.2**	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	**2.1**	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	**0.8**	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	**2.4**	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	**0.6**	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	**0.6**	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	<0.5	**29.8**	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	**3.0**	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	**0.6**	**3.3**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	**1.2**	**3.5**	**1.2**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		<0.5	----	----	----	<0.5
2-Chloronaphthalene	91-58-7	0.5	mg/kg		<0.5	----	----	----	<0.5
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		<0.5	----	----	----	<0.5
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		<0.5	----	----	----	<0.5
3-Methylcholanthrene	56-49-5	0.5	mg/kg		<0.5	----	----	----	<0.5
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Diethyl phthalate	84-66-2	0.5	mg/kg		<0.5	----	----	----	<0.5
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		<0.5	----	----	----	<0.5
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		<0.5	----	----	----	<0.5
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		<5.0	----	----	----	<5.0
Di-n-octylphthalate	117-84-0	0.5	mg/kg		<0.5	----	----	----	<0.5
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		<0.5	----	----	----	<0.5
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		<0.5	----	----	----	<0.5
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		<1.0	----	----	----	<1.0
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		<0.5	----	----	----	<0.5
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		<0.5	----	----	----	<0.5
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		<0.5	----	----	----	<0.5
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		<0.5	----	----	----	<0.5
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		<1.0	----	----	----	<1.0
Methapyrilene	91-80-5	0.5	mg/kg		<0.5	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Acetophenone	98-86-2	0.5	mg/kg		<0.5	----	----	----	<0.5
Nitrobenzene	98-95-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Isophorone	78-59-1	0.5	mg/kg		<0.5	----	----	----	<0.5
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		<1.0	----	----	----	<1.0
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		<1.0	----	----	----	<1.0
1-Naphthylamine	134-32-7	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		<0.5	----	----	----	<0.5
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Azobenzene	103-33-3	1	mg/kg		<1	----	----	----	<1
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Phenacetin	62-44-2	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Aminobiphenyl	92-67-1	0.5	mg/kg		<0.5	----	----	----	<0.5
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Pronamide	23950-58-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Chlorobenzilate	510-15-6	0.5	mg/kg		<0.5	----	----	----	<0.5
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		<0.5	----	----	----	<0.5
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		<0.5	----	----	----	<0.5
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		<0.5	----	----	----	<0.5
Hexachloroethane	67-72-1	0.5	mg/kg		<0.5	----	----	----	<0.5
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		<0.5	----	----	----	<0.5
Hexachloropropylene	1888-71-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	----	----	----	<0.5
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		<2.5	----	----	----	<2.5
Pentachlorobenzene	608-93-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		<1.0	----	----	----	<1.0
EP075H: Anilines and Benzidines									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP075H: Anilines and Benzidines - Continued									
Aniline	62-53-3	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Chloroaniline	106-47-8	0.5	mg/kg		<0.5	----	----	----	<0.5
2-Nitroaniline	88-74-4	1.0	mg/kg		<1.0	----	----	----	<1.0
3-Nitroaniline	99-09-2	1.0	mg/kg		<1.0	----	----	----	<1.0
Dibenzofuran	132-64-9	0.5	mg/kg		<0.5	----	----	----	<0.5
4-Nitroaniline	100-01-6	0.5	mg/kg		<0.5	----	----	----	<0.5
Carbazole	86-74-8	0.5	mg/kg		<0.5	----	----	----	<0.5
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		<0.5	----	----	----	<0.5
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		<0.5	----	----	----	<0.5
beta-BHC	319-85-7	0.5	mg/kg		<0.5	----	----	----	<0.5
gamma-BHC	58-89-9	0.5	mg/kg		<0.5	----	----	----	<0.5
delta-BHC	319-86-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Heptachlor	76-44-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Aldrin	309-00-2	0.5	mg/kg		<0.5	----	----	----	<0.5
Heptachlor epoxide	1024-57-3	0.5	mg/kg		<0.5	----	----	----	<0.5
alpha-Endosulfan	959-98-8	0.5	mg/kg		<0.5	----	----	----	<0.5
4.4`-DDE	72-55-9	0.5	mg/kg		<0.5	----	----	----	<0.5
Dieldrin	60-57-1	0.5	mg/kg		<0.5	----	----	----	<0.5
Endrin	72-20-8	0.5	mg/kg		<0.5	----	----	----	<0.5
beta-Endosulfan	33213-65-9	0.5	mg/kg		<0.5	----	----	----	<0.5
4.4`-DDD	72-54-8	0.5	mg/kg		<0.5	----	----	----	<0.5
Endosulfan sulfate	1031-07-8	0.5	mg/kg		<0.5	----	----	----	<0.5
4.4`-DDT	50-29-3	1.0	mg/kg		<1.0	----	----	----	<1.0
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		<0.5	----	----	----	<0.5
Dimethoate	60-51-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Diazinon	333-41-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		<0.5	----	----	----	<0.5
Malathion	121-75-5	0.5	mg/kg		<0.5	----	----	----	<0.5
Fenthion	55-38-9	0.5	mg/kg		<0.5	----	----	----	<0.5
Chlorpyrifos	2921-88-2	0.5	mg/kg		<0.5	----	----	----	<0.5
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		<0.5	----	----	----	<0.5
Chlorfenvinphos	470-90-6	0.5	mg/kg		<0.5	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Prothiofos	34643-46-4	0.5	mg/kg		<0.5	----	----	----	<0.5
Ethion	563-12-2	0.5	mg/kg		<0.5	----	----	----	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	**120**	<100
C29 - C36 Fraction	----	100	mg/kg		<100	<100	**190**	<100	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	**190**	**120**	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	**180**	**180**	<100
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	**160**	<100	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	**340**	**180**	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**97.1**	**102**	**101**	**72.2**	**94.9**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**83.6**	**75.3**	**72.6**	**82.3**	**77.6**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**91.3**	**104**	**92.2**	**93.8**	**93.3**
EP074S: VOC Surrogates									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.1_191127	BH04_0.5_191127	BH04_1.5_191127	BH05_0.1_191127	BH05_0.9_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-014	ES1939690-015	ES1939690-016	ES1939690-018	ES1939690-020
					Result	Result	Result	Result	Result
EP074S: VOC Surrogates - Continued									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		99.7	----	----	----	104
Toluene-D8	2037-26-5	0.5	%		112	----	----	----	101
4-Bromofluorobenzene	460-00-4	0.5	%		106	----	----	----	98.8
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		77.3	78.6	79.6	80.3	73.6
2-Chlorophenol-D4	93951-73-6	0.5	%		90.2	89.8	90.8	89.8	87.2
2.4.6-Tribromophenol	118-79-6	0.5	%		68.0	78.7	76.0	76.8	69.2
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		110	108	114	109	107
Anthracene-d10	1719-06-8	0.5	%		102	99.7	98.5	98.7	97.4
4-Terphenyl-d14	1718-51-0	0.5	%		93.5	86.3	96.0	91.6	91.4
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		63.1	----	----	----	78.5
Phenol-d6	13127-88-3	0.5	%		110	----	----	----	83.0
2-Chlorophenol-D4	93951-73-6	0.5	%		106	----	----	----	106
2.4.6-Tribromophenol	118-79-6	0.5	%		99.6	----	----	----	107
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		104	----	----	----	70.8
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		106	----	----	----	69.4
2-Fluorobiphenyl	321-60-8	0.5	%		83.0	----	----	----	130
Anthracene-d10	1719-06-8	0.5	%		118	----	----	----	110
4-Terphenyl-d14	1718-51-0	0.5	%		123	----	----	----	121
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		100	88.5	114	80.5	105
Toluene-D8	2037-26-5	0.2	%		104	93.6	80.8	121	93.7
4-Bromofluorobenzene	460-00-4	0.2	%		102	88.8	115	103	94.7

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH05_1.2_191127	BH06_0.1_191127	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-021	ES1939690-023	ES1939690-024	ES1939690-026	ES1939690-027
					Result	Result	Result	Result	Result
EA029-A: pH Measurements									
pH KCl (23A)	----	0.1	pH Unit		5.2	----	----	4.1	----
pH OX (23B)	----	0.1	pH Unit		2.0	----	----	2.0	----
EA029-B: Acidity Trail									
Titratable Actual Acidity (23F)	----	2	mole H+ / t		108	----	----	218	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t		6030	----	----	3020	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t		5920	----	----	2800	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S		0.174	----	----	0.350	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S		9.67	----	----	4.84	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S		9.50	----	----	4.49	----
EA029-C: Sulfur Trail									
KCl Extractable Sulfur (23Ce)	----	0.020	% S		0.073	----	----	0.023	----
Peroxide Sulfur (23De)	----	0.020	% S		1.72	----	----	1.09	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S		1.65	----	----	1.07	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t		1030	----	----	666	----
EA029-D: Calcium Values									
KCl Extractable Calcium (23Vh)	----	0.020	% Ca		1.92	----	----	0.084	----
Peroxide Calcium (23Wh)	----	0.020	% Ca		0.917	----	----	0.128	----
Acid Reacted Calcium (23X)	----	0.020	% Ca		<0.020	----	----	0.044	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t		<10	----	----	22	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S		<0.020	----	----	0.035	----
EA029-E: Magnesium Values									
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg		0.225	----	----	0.142	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg		0.237	----	----	0.163	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg		<0.020	----	----	0.021	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t		<10	----	----	17	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S		<0.020	----	----	0.027	----
EA029-G: Retained Acidity									
HCl Extractable Sulfur (20Be)	----	0.020	% S		----	----	----	0.029	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S		----	----	----	<0.020	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		----	----	----	<10	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S		----	----	----	<0.020	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH05_1.2_191127	BH06_0.1_191127	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-021	ES1939690-023	ES1939690-024	ES1939690-026	ES1939690-027
				Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	----	----	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	1.82	----	----	1.42	----
Net Acidity (acidity units)	----	10	mole H+ / t	1140	----	----	887	----
Liming Rate	----	1	kg CaCO3/t	85	----	----	66	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	1.82	----	----	1.42	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	1140	----	----	887	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	85	----	----	66	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	84.1	10.5	4.7	84.9	5.6
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	No	No	----	No
Asbestos (Trace)	1332-21-4	5	Fibres	----	No	No	----	No
Asbestos Type	1332-21-4	-	--	----	-	-	----	-
Synthetic Mineral Fibre	----	0.1	g/kg	----	No	Yes	----	No
Organic Fibre	----	0.1	g/kg	----	No	No	----	No
Sample weight (dry)	----	0.01	g	----	164	502	----	414
APPROVED IDENTIFIER:	----	-	--	----	A. SMYLIE	A. SMYLIE	----	A. SMYLIE
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	<0.0004	----	----	<0.0004
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	<0.001	----	----	<0.001
ø Asbestos Containing Material	1332-21-4	0.1	g	----	<0.1	----	----	<0.1
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	<0.01	----	----	<0.01
ø Weight Used for % Calculation	----	0.0001	kg	----	0.164	----	----	0.414
ø Fibrous Asbestos >7mm	----	0.0004	g	----	<0.0004	----	----	<0.0004
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	16	6	5	32	6
Copper	7440-50-8	5	mg/kg	9	16	11	16	16
Lead	7439-92-1	5	mg/kg	<5	120	154	10	131
Nickel	7440-02-0	2	mg/kg	3	2	2	19	2
Zinc	7440-66-6	5	mg/kg	23	191	173	24	241

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH05_1.2_191127	BH06_0.1_191127	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-021	ES1939690-023	ES1939690-024	ES1939690-026	ES1939690-027
					Result	Result	Result	Result	Result
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	**0.2**	**0.3**	**0.3**	**0.2**
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	**0.64**
Aldrin	309-00-2	0.05	mg/kg		<0.12	<0.05	**0.05**	<0.12	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	**0.64**
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	**1.67**
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	**1.37**
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	**0.30**
Dieldrin	60-57-1	0.05	mg/kg		<0.12	**0.15**	**1.03**	<0.12	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.07	<0.05	<0.05	<0.07	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	**0.15**	**1.08**	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH05_1.2_191127	BH06_0.1_191127	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-021	ES1939690-023	ES1939690-024	ES1939690-026	ES1939690-027
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.12	<0.05	<0.05	<0.12	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<4	<1	<1	<4	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<4	<2	<2	<4	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Fluorene	86-73-7	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH05_1.2_191127	BH06_0.1_191127	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-021	ES1939690-023	ES1939690-024	ES1939690-026	ES1939690-027
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Phenanthrene	85-01-8	0.5	mg/kg		<2.0	<0.5	**1.0**	<2.0	**0.5**
Anthracene	120-12-7	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<2.0	<0.5	**1.6**	<2.0	**1.1**
Pyrene	129-00-0	0.5	mg/kg		<2.0	<0.5	**1.5**	<2.0	**1.2**
Benz(a)anthracene	56-55-3	0.5	mg/kg		<2.0	<0.5	**0.6**	<2.0	<0.5
Chrysene	218-01-9	0.5	mg/kg		<2.0	<0.5	**0.5**	<2.0	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<2.0	<0.5	**0.6**	<2.0	**0.5**
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<2.0	<0.5	<0.5	<2.0	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<1.0	<0.5	**5.8**	<1.0	**3.3**
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	**0.7**	<0.5	**0.5**
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**2.4**	**0.6**	**1.0**	**2.4**	**0.8**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**4.8**	**1.2**	**1.3**	**4.8**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<110	<50	<50	<110	<50
C15 - C28 Fraction	----	100	mg/kg		**650**	**120**	<100	**1980**	<100
C29 - C36 Fraction	----	100	mg/kg		**730**	**180**	<100	**2140**	<100
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**1380**	**300**	<50	**4120**	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<110	<50	<50	<110	<50
>C16 - C34 Fraction	----	100	mg/kg		**1090**	**180**	<100	**3430**	<100
>C34 - C40 Fraction	----	100	mg/kg		**500**	**180**	<100	**840**	<100
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		**1590**	**360**	<50	**4270**	<50
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<110	<50	<50	<110	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH05_1.2_191127	BH06_0.1_191127	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-021	ES1939690-023	ES1939690-024	ES1939690-026	ES1939690-027
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		108	111	87.2	101	86.9
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		75.6	84.7	87.7	82.7	90.9
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		82.1	84.8	81.3	87.6	114
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		79.4	84.1	81.2	79.0	80.4
2-Chlorophenol-D4	93951-73-6	0.5	%		90.8	92.9	88.9	90.9	90.9
2.4.6-Tribromophenol	118-79-6	0.5	%		79.5	82.5	60.8	79.6	66.7
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		110	113	107	110	110
Anthracene-d10	1719-06-8	0.5	%		101	103	97.6	101	105
4-Terphenyl-d14	1718-51-0	0.5	%		95.3	93.7	94.0	98.7	98.2
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		88.1	116	99.7	64.5	106
Toluene-D8	2037-26-5	0.2	%		90.0	124	105	63.4	109
4-Bromofluorobenzene	460-00-4	0.2	%		90.7	125	107	70.3	112

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	**6.3**	**5.7**	**10.6**	----	----
pH OX (23B)	----	0.1	pH Unit	**5.4**	**2.5**	**7.6**	----	----
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	**8**	<2	----	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	**319**	<2	----	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	**311**	<2	----	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	<0.020	<0.020	<0.020	----	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	<0.020	**0.511**	<0.020	----	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	<0.020	**0.498**	<0.020	----	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	<0.020	<0.020	<0.020	----	----
Peroxide Sulfur (23De)	----	0.020	% S	**0.053**	**0.156**	**0.026**	----	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	**0.053**	**0.156**	**0.026**	----	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	**33**	**97**	**16**	----	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	**0.251**	**0.227**	**0.271**	----	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	**0.209**	**0.228**	**1.39**	----	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	<0.020	<0.020	**1.12**	----	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	<10	**560**	----	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	<0.020	<0.020	**0.897**	----	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	<0.020	<0.020	<0.020	----	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	<0.020	<0.020	<0.020	----	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	<0.020	<0.020	<0.020	----	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	<10	----	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	<0.020	<0.020	<0.020	----	----
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO3	----	----	**3.28**	----	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	----	----	**656**	----	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	----	**1.05**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
				Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity - Continued								
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	**1.5**	**1.5**	**1.5**	**----**	**----**
Net Acidity (sulfur units)	----	0.02	% S	**0.05**	**0.17**	<0.02	**----**	**----**
Net Acidity (acidity units)	----	10	mole H+ / t	**33**	**105**	<10	**----**	**----**
Liming Rate	----	1	kg CaCO3/t	**2**	**8**	<1	**----**	**----**
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	**0.05**	**0.17**	**0.02**	**----**	**----**
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	**33**	**105**	**16**	**----**	**----**
Liming Rate excluding ANC	----	1	kg CaCO3/t	**2**	**8**	**1**	**----**	**----**
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**23.7**	**23.4**	**3.8**	**15.6**	**83.2**
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	**----**	**----**	**No**	**No**	**----**
Asbestos (Trace)	1332-21-4	5	Fibres	**----**	**----**	**No**	**No**	**----**
Asbestos Type	1332-21-4	-	--	**----**	**----**	**-**	**-**	**----**
Synthetic Mineral Fibre	----	0.1	g/kg	**----**	**----**	**No**	**No**	**----**
Organic Fibre	----	0.1	g/kg	**----**	**----**	**No**	**No**	**----**
Sample weight (dry)	----	0.01	g	**----**	**----**	**469**	**346**	**----**
APPROVED IDENTIFIER:	----	-	--	**----**	**----**	**A. SMYLIE**	**A. SMYLIE**	**----**
EA200N: Asbestos Quantification (non-NATA)								
ø **Asbestos (Fines and Fibrous <7mm)**	1332-21-4	0.0004	g	**----**	**----**	**----**	<0.0004	**----**
ø **Asbestos (Fines and Fibrous FA+AF)**	----	0.001	% (w/w)	**----**	**----**	**----**	<0.001	**----**
ø **Asbestos Containing Material**	1332-21-4	0.1	g	**----**	**----**	**----**	<0.1	**----**
ø **Asbestos Containing Material (as 15% Asbestos in ACM >7mm)**	1332-21-4	0.01	% (w/w)	**----**	**----**	**----**	<0.01	**----**
ø **Weight Used for % Calculation**	----	0.0001	kg	**----**	**----**	**----**	**0.346**	**----**
ø **Fibrous Asbestos >7mm**	----	0.0004	g	**----**	**----**	**----**	<0.0004	**----**
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	<2	<2	**8**	**5**	**6**
Copper	7440-50-8	5	mg/kg	<5	<5	**32**	<5	**6**
Lead	7439-92-1	5	mg/kg	**6**	**17**	**300**	<5	<5
Nickel	7440-02-0	2	mg/kg	<2	<2	**5**	<2	**10**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Zinc	7440-66-6	5	mg/kg		6	16	349	<5	8
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	0.4	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.7
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.07
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Isopropylbenzene	98-82-8	0.5	mg/kg		<0.5	----	----	<0.5	----
n-Propylbenzene	103-65-1	0.5	mg/kg		<0.5	----	----	<0.5	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		<0.5	----	----	<0.5	----
sec-Butylbenzene	135-98-8	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		<0.5	----	----	<0.5	----
tert-Butylbenzene	98-06-6	0.5	mg/kg		<0.5	----	----	<0.5	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg		<0.5	----	----	<0.5	----
n-Butylbenzene	104-51-8	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		<5	----	----	<5	----
2-Butanone (MEK)	78-93-3	5	mg/kg		<5	----	----	<5	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		<5	----	----	<5	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		<5	----	----	<5	----
EP074C: Sulfonated Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP074C: Sulfonated Compounds - Continued									
Carbon disulfide	75-15-0	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	----	----	<0.5	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	----	----	<0.5	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	----	----	<5	----
Chloromethane	74-87-3	5	mg/kg		<5	----	----	<5	----
Vinyl chloride	75-01-4	5	mg/kg		<5	----	----	<5	----
Bromomethane	74-83-9	5	mg/kg		<5	----	----	<5	----
Chloroethane	75-00-3	5	mg/kg		<5	----	----	<5	----
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	----	----	<5	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Iodomethane	74-88-4	0.5	mg/kg		<0.5	----	----	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	----	----	<0.5	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	----	----	<0.5	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	----	----	<0.5	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Bromobenzene	108-86-1	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Bromodichloromethane	75-27-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Dibromochloromethane	124-48-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Bromoform	75-25-2	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	<4
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<4
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Fluoranthene	206-44-0	0.5	mg/kg		**0.9**	<0.5	**1.0**	<0.5	<2.0
Pyrene	129-00-0	0.5	mg/kg		**0.9**	<0.5	**1.2**	<0.5	<2.0

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	**0.5**	<0.5	<2.0
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	**0.5**	<0.5	<2.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	**0.6**	<0.5	<2.0
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**1.8**	<0.5	**3.8**	<0.5	<1.0
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	**0.6**	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	**1.0**	**0.6**	**2.4**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	**1.3**	**1.2**	**4.8**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		<0.5	----	----	<0.5	----
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		<0.5	----	----	<0.5	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		<0.5	----	----	<0.5	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Diethyl phthalate	84-66-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		<0.5	----	----	<0.5	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		<5.0	----	----	<5.0	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		<1.0	----	----	<1.0	----
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP075D: Nitrosamines - Continued									
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		<1.0	----	----	<1.0	----
Methapyrilene	91-80-5	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Acetophenone	98-86-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Nitrobenzene	98-95-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Isophorone	78-59-1	0.5	mg/kg		<0.5	----	----	<0.5	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		<1.0	----	----	<1.0	----
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		<1.0	----	----	<1.0	----
1-Naphthylamine	134-32-7	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		<0.5	----	----	<0.5	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Azobenzene	103-33-3	1	mg/kg		<1	----	----	<1	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Phenacetin	62-44-2	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Aminobiphenyl	92-67-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Pronamide	23950-58-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorobenzilate	510-15-6	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		<0.5	----	----	<0.5	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachloroethane	67-72-1	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachloropropylene	1888-71-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP075G: Chlorinated Hydrocarbons - Continued									
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		<2.5	----	----	<2.5	----
Pentachlorobenzene	608-93-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		<1.0	----	----	<1.0	----
EP075H: Anilines and Benzidines									
Aniline	62-53-3	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chloroaniline	106-47-8	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Nitroaniline	88-74-4	1.0	mg/kg		<1.0	----	----	<1.0	----
3-Nitroaniline	99-09-2	1.0	mg/kg		<1.0	----	----	<1.0	----
Dibenzofuran	132-64-9	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Nitroaniline	100-01-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Carbazole	86-74-8	0.5	mg/kg		<0.5	----	----	<0.5	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		<0.5	----	----	<0.5	----
beta-BHC	319-85-7	0.5	mg/kg		<0.5	----	----	<0.5	----
gamma-BHC	58-89-9	0.5	mg/kg		<0.5	----	----	<0.5	----
delta-BHC	319-86-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Heptachlor	76-44-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Aldrin	309-00-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		<0.5	----	----	<0.5	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		<0.5	----	----	<0.5	----
4.4`-DDE	72-55-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Dieldrin	60-57-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Endrin	72-20-8	0.5	mg/kg		<0.5	----	----	<0.5	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		<0.5	----	----	<0.5	----
4.4`-DDD	72-54-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		<0.5	----	----	<0.5	----
4.4`-DDT	50-29-3	1.0	mg/kg		<1.0	----	----	<1.0	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Dimethoate	60-51-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Diazinon	333-41-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		<0.5	----	----	<0.5	----
Malathion	121-75-5	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Fenthion	55-38-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Prothiofos	34643-46-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Ethion	563-12-2	0.5	mg/kg		<0.5	----	----	<0.5	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<110
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	**2720**
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	<100	**2460**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	**5180**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<110
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	<100	**4750**
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	**590**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	<50	**5340**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<110
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**105**	**74.3**	**70.7**	**88.6**	**126**
EP068S: Organochlorine Pesticide Surrogate									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH07_0.9_191127	BH07_1.1_191127	BH08_0.5_191127	BH08_1.1_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-029	ES1939690-030	ES1939690-033	ES1939690-035	ES1939690-036
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate - Continued									
Dibromo-DDE	21655-73-2	0.05	%		83.9	79.4	75.9	70.5	80.5
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		107	68.2	81.7	85.3	101
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		109	----	----	110	----
Toluene-D8	2037-26-5	0.5	%		128	----	----	122	----
4-Bromofluorobenzene	460-00-4	0.5	%		121	----	----	114	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		79.2	80.9	78.0	73.7	80.7
2-Chlorophenol-D4	93951-73-6	0.5	%		94.7	90.7	87.4	87.7	92.4
2.4.6-Tribromophenol	118-79-6	0.5	%		70.4	63.0	48.4	70.2	73.5
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		116	110	109	107	113
Anthracene-d10	1719-06-8	0.5	%		106	100	99.0	97.3	102
4-Terphenyl-d14	1718-51-0	0.5	%		97.4	100	105	90.3	101
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		73.4	----	----	86.8	----
Phenol-d6	13127-88-3	0.5	%		98.0	----	----	106	----
2-Chlorophenol-D4	93951-73-6	0.5	%		104	----	----	113	----
2.4.6-Tribromophenol	118-79-6	0.5	%		104	----	----	102	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		116	----	----	104	----
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		107	----	----	105	----
2-Fluorobiphenyl	321-60-8	0.5	%		120	----	----	112	----
Anthracene-d10	1719-06-8	0.5	%		120	----	----	107	----
4-Terphenyl-d14	1718-51-0	0.5	%		114	----	----	117	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		109	98.9	111	110	78.6
Toluene-D8	2037-26-5	0.2	%		120	95.0	112	114	80.3
4-Bromofluorobenzene	460-00-4	0.2	%		116	104	116	110	84.3

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	7.0	----	----	4.1
pH OX (23B)	----	0.1	pH Unit	----	7.3	----	----	1.7
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	<2	----	----	214
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	<2	----	----	6630
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	<2	----	----	6420
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	<0.020	----	----	0.344
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	<0.020	----	----	10.6
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	<0.020	----	----	10.3
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	<0.020	----	----	0.027
Peroxide Sulfur (23De)	----	0.020	% S	----	0.020	----	----	1.96
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	0.020	----	----	1.93
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	12	----	----	1200
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.214	----	----	0.112
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.277	----	----	0.159
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	0.062	----	----	0.047
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	31	----	----	24
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	0.050	----	----	0.038
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	<0.020	----	----	0.144
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	<0.020	----	----	0.158
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	<0.020	----	----	<0.020
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	<10	----	----	11
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	<0.020	----	----	<0.020
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO3	----	0.820	----	----	----
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	----	164	----	----	----
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	0.262	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity - Continued									
EA029-G: Retained Acidity									
HCl Extractable Sulfur (20Be)	----	0.020	% S		----	----	----	----	**0.035**
Net Acid Soluble Sulfur (20Je)	----	0.020	% S		----	----	----	----	<0.020
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		----	----	----	----	<10
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S		----	----	----	----	<0.020
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		----	**1.5**	----	----	**1.5**
Net Acidity (sulfur units)	----	0.02	% S		----	<0.02	----	----	**2.28**
Net Acidity (acidity units)	----	10	mole H+ / t		----	<10	----	----	**1420**
Liming Rate	----	1	kg CaCO3/t		----	<1	----	----	**107**
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		----	**0.02**	----	----	**2.28**
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		----	**12**	----	----	**1420**
Liming Rate excluding ANC	----	1	kg CaCO3/t		----	<1	----	----	**107**
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**7.8**	**7.3**	**16.2**	**19.5**	**85.3**
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		**No**	----	**No**	**No**	----
Asbestos (Trace)	1332-21-4	5	Fibres		**No**	----	**No**	**No**	----
Asbestos Type	1332-21-4	-	--		**-**	----	**-**	**-**	----
Synthetic Mineral Fibre	----	0.1	g/kg		**No**	----	**Yes**	**No**	----
Organic Fibre	----	0.1	g/kg		**No**	----	**No**	**No**	----
Sample weight (dry)	----	0.01	g		**376**	----	**365**	**323**	----
APPROVED IDENTIFIER:	----	-	--		**A. SMYLIE**	----	**A. SMYLIE**	**A. SMYLIE**	----
EA200N: Asbestos Quantification (non-NATA)									
ø **Asbestos (Fines and Fibrous <7mm)**	1332-21-4	0.0004	g		----	----	----	<0.0004	----
ø **Asbestos (Fines and Fibrous FA+AF)**	----	0.001	% (w/w)		----	----	----	<0.001	----
ø **Asbestos Containing Material**	1332-21-4	0.1	g		----	----	----	<0.1	----
ø **Asbestos Containing Material (as 15% Asbestos in ACM >7mm)**	1332-21-4	0.01	% (w/w)		----	----	----	<0.01	----
ø **Weight Used for % Calculation**	----	0.0001	kg		----	----	----	**0.323**	----
ø **Fibrous Asbestos >7mm**	----	0.0004	g		----	----	----	<0.0004	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		**5**	<2	**9**	**18**	**8**
Copper	7440-50-8	5	mg/kg		**11**	<5	**16**	**25**	**11**
Lead	7439-92-1	5	mg/kg		**102**	<5	**145**	**119**	<5
Nickel	7440-02-0	2	mg/kg		**2**	<2	**4**	**20**	**15**
Zinc	7440-66-6	5	mg/kg		**141**	**231**	**254**	**88**	**14**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		**0.2**	<0.1	**0.2**	**0.6**	<0.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Heptachlor	76-44-8	0.05	mg/kg		**1.18**	<0.05	**0.76**	<0.05	<0.12
Aldrin	309-00-2	0.05	mg/kg		**0.06**	<0.05	<0.05	<0.05	<0.12
Heptachlor epoxide	1024-57-3	0.05	mg/kg		**0.51**	<0.05	**0.82**	<0.05	<0.12
^ Total Chlordane (sum)	----	0.05	mg/kg		**1.60**	<0.05	**1.88**	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		**1.44**	<0.05	**1.63**	<0.05	<0.12
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
cis-Chlordane	5103-71-9	0.05	mg/kg		**0.16**	<0.05	**0.25**	<0.05	<0.12
Dieldrin	60-57-1	0.05	mg/kg		**0.58**	<0.05	<0.05	<0.05	<0.12
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.07
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		**0.64**	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.12
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		----	----	----	<0.5	----
Isopropylbenzene	98-82-8	0.5	mg/kg		----	----	----	<0.5	----
n-Propylbenzene	103-65-1	0.5	mg/kg		----	----	----	<0.5	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	----	----	<0.5	----
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	----	----	<0.5	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	----	----	<0.5	----
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	----	----	<0.5	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	----	----	<0.5	----
n-Butylbenzene	104-51-8	0.5	mg/kg		----	----	----	<0.5	----
EP074B: Oxygenated Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP074B: Oxygenated Compounds - Continued									
Vinyl Acetate	108-05-4	5	mg/kg		----	----	----	<5	----
2-Butanone (MEK)	78-93-3	5	mg/kg		----	----	----	<5	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	----	----	<5	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	----	----	<5	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		----	----	----	<0.5	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	----	----	<0.5	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	----	----	<0.5	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	----	----	<0.5	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	----	----	<5	----
Chloromethane	74-87-3	5	mg/kg		----	----	----	<5	----
Vinyl chloride	75-01-4	5	mg/kg		----	----	----	<5	----
Bromomethane	74-83-9	5	mg/kg		----	----	----	<5	----
Chloroethane	75-00-3	5	mg/kg		----	----	----	<5	----
Trichlorofluoromethane	75-69-4	5	mg/kg		----	----	----	<5	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	----	----	<0.5	----
Iodomethane	74-88-4	0.5	mg/kg		----	----	----	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	----	----	<0.5	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	----	----	<0.5	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	----	----	<0.5	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	----	----	<0.5	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	----	----	<0.5	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	----	----	<0.5	----
Trichloroethene	79-01-6	0.5	mg/kg		----	----	----	<0.5	----
Dibromomethane	74-95-3	0.5	mg/kg		----	----	----	<0.5	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		----	----	----	<0.5	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		----	----	----	<0.5	----
Tetrachloroethene	127-18-4	0.5	mg/kg		----	----	----	<0.5	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		----	----	----	<0.5	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		----	----	----	<0.5	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		----	----	----	<0.5	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		----	----	----	<0.5	----
Pentachloroethane	76-01-7	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		----	----	----	<0.5	----
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		----	----	----	<0.5	----
Bromobenzene	108-86-1	0.5	mg/kg		----	----	----	<0.5	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		----	----	----	<0.5	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		----	----	----	<0.5	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		----	----	----	<0.5	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		----	----	----	<0.5	----
Bromodichloromethane	75-27-4	0.5	mg/kg		----	----	----	<0.5	----
Dibromochloromethane	124-48-1	0.5	mg/kg		----	----	----	<0.5	----
Bromoform	75-25-2	0.5	mg/kg		----	----	----	<0.5	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	<4
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<4
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Phenanthrene	85-01-8	0.5	mg/kg		**1.4**	<0.5	**1.5**	<0.5	<2.0
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Fluoranthene	206-44-0	0.5	mg/kg		**2.0**	<0.5	**2.3**	<0.5	<2.0
Pyrene	129-00-0	0.5	mg/kg		**1.9**	<0.5	**2.4**	<0.5	<2.0
Benz(a)anthracene	56-55-3	0.5	mg/kg		**0.8**	<0.5	**0.9**	<0.5	<2.0
Chrysene	218-01-9	0.5	mg/kg		**0.6**	<0.5	**0.8**	<0.5	<2.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		**0.6**	<0.5	**0.7**	<0.5	<2.0
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg		**0.8**	<0.5	**0.9**	<0.5	<2.0
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<2.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**8.1**	<0.5	**9.5**	<0.5	<1.0
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		**0.9**	<0.5	**1.1**	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**1.2**	**0.6**	**1.4**	**0.6**	**2.4**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.6**	**1.2**	**1.7**	**1.2**	**4.8**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		----	----	----	<0.5	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		----	----	----	<0.5	----
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		----	----	----	<0.5	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		----	----	----	<0.5	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		----	----	----	<0.5	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		----	----	----	<0.5	----
Diethyl phthalate	84-66-2	0.5	mg/kg		----	----	----	<0.5	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		----	----	----	<0.5	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		----	----	----	<0.5	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		----	----	----	<5.0	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		----	----	----	<0.5	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		----	----	----	<1.0	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP075D: Nitrosamines - Continued									
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		----	----	----	<0.5	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		----	----	----	<1.0	----
Methapyrilene	91-80-5	0.5	mg/kg		----	----	----	<0.5	----
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		----	----	----	<0.5	----
Acetophenone	98-86-2	0.5	mg/kg		----	----	----	<0.5	----
Nitrobenzene	98-95-3	0.5	mg/kg		----	----	----	<0.5	----
Isophorone	78-59-1	0.5	mg/kg		----	----	----	<0.5	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		----	----	----	<1.0	----
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		----	----	----	<1.0	----
1-Naphthylamine	134-32-7	0.5	mg/kg		----	----	----	<0.5	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		----	----	----	<0.5	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		----	----	----	<0.5	----
Azobenzene	103-33-3	1	mg/kg		----	----	----	<1	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		----	----	----	<0.5	----
Phenacetin	62-44-2	0.5	mg/kg		----	----	----	<0.5	----
4-Aminobiphenyl	92-67-1	0.5	mg/kg		----	----	----	<0.5	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		----	----	----	<0.5	----
Pronamide	23950-58-5	0.5	mg/kg		----	----	----	<0.5	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		----	----	----	<0.5	----
Chlorobenzilate	510-15-6	0.5	mg/kg		----	----	----	<0.5	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		----	----	----	<0.5	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		----	----	----	<0.5	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		----	----	----	<0.5	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		----	----	----	<0.5	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		----	----	----	<0.5	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		----	----	----	<0.5	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP075G: Chlorinated Hydrocarbons - Continued									
Hexachloroethane	67-72-1	0.5	mg/kg		----	----	----	<0.5	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		----	----	----	<0.5	----
Hexachloropropylene	1888-71-7	0.5	mg/kg		----	----	----	<0.5	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg		----	----	----	<0.5	----
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		----	----	----	<2.5	----
Pentachlorobenzene	608-93-5	0.5	mg/kg		----	----	----	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		----	----	----	<1.0	----
EP075H: Anilines and Benzidines									
Aniline	62-53-3	0.5	mg/kg		----	----	----	<0.5	----
4-Chloroaniline	106-47-8	0.5	mg/kg		----	----	----	<0.5	----
2-Nitroaniline	88-74-4	1.0	mg/kg		----	----	----	<1.0	----
3-Nitroaniline	99-09-2	1.0	mg/kg		----	----	----	<1.0	----
Dibenzofuran	132-64-9	0.5	mg/kg		----	----	----	<0.5	----
4-Nitroaniline	100-01-6	0.5	mg/kg		----	----	----	<0.5	----
Carbazole	86-74-8	0.5	mg/kg		----	----	----	<0.5	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		----	----	----	<0.5	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		----	----	----	<0.5	----
beta-BHC	319-85-7	0.5	mg/kg		----	----	----	<0.5	----
gamma-BHC	58-89-9	0.5	mg/kg		----	----	----	<0.5	----
delta-BHC	319-86-8	0.5	mg/kg		----	----	----	<0.5	----
Heptachlor	76-44-8	0.5	mg/kg		----	----	----	<0.5	----
Aldrin	309-00-2	0.5	mg/kg		----	----	----	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		----	----	----	<0.5	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		----	----	----	<0.5	----
4.4`-DDE	72-55-9	0.5	mg/kg		----	----	----	<0.5	----
Dieldrin	60-57-1	0.5	mg/kg		----	----	----	<0.5	----
Endrin	72-20-8	0.5	mg/kg		----	----	----	<0.5	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		----	----	----	<0.5	----
4.4`-DDD	72-54-8	0.5	mg/kg		----	----	----	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		----	----	----	<0.5	----
4.4`-DDT	50-29-3	1.0	mg/kg		----	----	----	<1.0	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		----	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Dimethoate	60-51-5	0.5	mg/kg		----	----	----	<0.5	----
Diazinon	333-41-5	0.5	mg/kg		----	----	----	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		----	----	----	<0.5	----
Malathion	121-75-5	0.5	mg/kg		----	----	----	<0.5	----
Fenthion	55-38-9	0.5	mg/kg		----	----	----	<0.5	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		----	----	----	<0.5	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		----	----	----	<0.5	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		----	----	----	<0.5	----
Prothiofos	34643-46-4	0.5	mg/kg		----	----	----	<0.5	----
Ethion	563-12-2	0.5	mg/kg		----	----	----	<0.5	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<110
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	<100	**750**
C29 - C36 Fraction	----	100	mg/kg		<100	**120**	<100	<100	**1030**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	**120**	<50	<50	**1780**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<110
>C16 - C34 Fraction	----	100	mg/kg		<100	**120**	**100**	<100	**1490**
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	<100	**500**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	**120**	**100**	<50	**1990**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<110
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.5
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.5_191127	BH09_1.0_191127	BH10_ 0.1_181128	BH10_1.0_181128	BH10_2.5_1811 28
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-037	ES1939690-038	ES1939690-041	ES1939690-043	ES1939690-045
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		97.5	72.2	110	95.8	124
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		85.2	85.3	102	78.1	102
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		98.8	82.7	100	84.7	107
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		----	----	----	95.5	----
Toluene-D8	2037-26-5	0.5	%		----	----	----	91.9	----
4-Bromofluorobenzene	460-00-4	0.5	%		----	----	----	92.4	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		79.7	79.6	77.2	72.7	106
2-Chlorophenol-D4	93951-73-6	0.5	%		90.8	87.6	87.7	86.3	98.2
2.4.6-Tribromophenol	118-79-6	0.5	%		63.5	66.8	69.7	72.4	100
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		109	109	107	106	112
Anthracene-d10	1719-06-8	0.5	%		99.2	98.6	97.7	98.0	110
4-Terphenyl-d14	1718-51-0	0.5	%		99.0	98.3	92.6	90.1	106
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		----	----	----	92.9	----
Phenol-d6	13127-88-3	0.5	%		----	----	----	112	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	111	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	93.0	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		----	----	----	103	----
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		----	----	----	105	----
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	115	----
Anthracene-d10	1719-06-8	0.5	%		----	----	----	112	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	118	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		98.9	109	95.5	80.8	79.0
Toluene-D8	2037-26-5	0.2	%		103	113	97.4	85.5	108
4-Bromofluorobenzene	460-00-4	0.2	%		106	113	102	98.4	122

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	5.1	5.3	----	3.8
pH OX (23B)	----	0.1	pH Unit	----	2.6	2.7	----	1.7
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	10	5	----	437
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	198	100	----	7310
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	188	95	----	6870
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	<0.020	<0.020	----	0.701
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	0.317	0.160	----	11.7
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	0.301	0.152	----	11.0
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	<0.020	<0.020	----	0.231
Peroxide Sulfur (23De)	----	0.020	% S	----	0.094	0.046	----	2.62
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	0.094	0.046	----	2.39
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	58	28	----	1490
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.068	0.034	----	0.882
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.068	0.034	----	1.40
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	<0.020	<0.020	----	0.516
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	<10	<10	----	258
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	<0.020	<0.020	----	0.413
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	<0.020	<0.020	----	0.130
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	<0.020	<0.020	----	0.174
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	<0.020	<0.020	----	0.044
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	<10	<10	----	36
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	<0.020	<0.020	----	0.058
EA029-G: Retained Acidity								
HCl Extractable Sulfur (20Be)	----	0.020	% S	----	----	----	----	0.113
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	----	----	----	----	<0.020
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	----	----	----	<10
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	----	----	----	----	<0.020

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
				Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	1.5	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	0.11	0.05	----	3.00
Net Acidity (acidity units)	----	10	mole H+ / t	----	68	34	----	1870
Liming Rate	----	1	kg CaCO3/t	----	5	2	----	141
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	0.11	0.05	----	3.00
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	68	34	----	1870
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	5	2	----	141
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	18.4	37.1	25.7	2.7	53.0
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	----	No	----
Asbestos (Trace)	1332-21-4	5	Fibres	No	----	----	No	----
Asbestos Type	1332-21-4	-	--	-	----	----	-	----
Synthetic Mineral Fibre	----	0.1	g/kg	No	----	----	No	----
Organic Fibre	----	0.1	g/kg	No	----	----	No	----
Sample weight (dry)	----	0.01	g	350	----	----	420	----
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	----	A. SMYLIE	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	<0.0004	----	----	<0.0004	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	<0.001	----	----	<0.001	----
ø Asbestos Containing Material	1332-21-4	0.1	g	<0.1	----	----	<0.1	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	<0.01	----	----	<0.01	----
ø Weight Used for % Calculation	----	0.0001	kg	0.350	----	----	0.420	----
ø Fibrous Asbestos >7mm	----	0.0004	g	<0.0004	----	----	<0.0004	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	8
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	7	5	3	3	6
Copper	7440-50-8	5	mg/kg	69	11	8	9	6
Lead	7439-92-1	5	mg/kg	405	53	41	75	948
Nickel	7440-02-0	2	mg/kg	5	2	<2	<2	5
Zinc	7440-66-6	5	mg/kg	475	69	48	119	572

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		**0.5**	<0.1	<0.1	**0.2**	**0.2**
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Total Chlordane (sum)**	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Endosulfan (sum)**	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		----	<0.5	----	<0.5	----
Isopropylbenzene	98-82-8	0.5	mg/kg		----	<0.5	----	<0.5	----
n-Propylbenzene	103-65-1	0.5	mg/kg		----	<0.5	----	<0.5	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	<0.5	----	<0.5	----
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	<0.5	----	<0.5	----
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	<0.5	----	<0.5	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	<0.5	----	<0.5	----
n-Butylbenzene	104-51-8	0.5	mg/kg		----	<0.5	----	<0.5	----
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		----	<5	----	<5	----
2-Butanone (MEK)	78-93-3	5	mg/kg		----	<5	----	<5	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	<5	----	<5	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	<5	----	<5	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		----	<0.5	----	<0.5	----
EP074D: Fumigants									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP074D: Fumigants - Continued									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	<0.5	----	<0.5	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	<0.5	----	<0.5	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	<0.5	----	<0.5	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	<5	----	<5	----
Chloromethane	74-87-3	5	mg/kg		----	<5	----	<5	----
Vinyl chloride	75-01-4	5	mg/kg		----	<5	----	<5	----
Bromomethane	74-83-9	5	mg/kg		----	<5	----	<5	----
Chloroethane	75-00-3	5	mg/kg		----	<5	----	<5	----
Trichlorofluoromethane	75-69-4	5	mg/kg		----	<5	----	<5	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Iodomethane	74-88-4	0.5	mg/kg		----	<0.5	----	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	<0.5	----	<0.5	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	<0.5	----	<0.5	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	<0.5	----	<0.5	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	<0.5	----	<0.5	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	<0.5	----	<0.5	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	<0.5	----	<0.5	----
Trichloroethene	79-01-6	0.5	mg/kg		----	<0.5	----	<0.5	----
Dibromomethane	74-95-3	0.5	mg/kg		----	<0.5	----	<0.5	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		----	<0.5	----	<0.5	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		----	<0.5	----	<0.5	----
Tetrachloroethene	127-18-4	0.5	mg/kg		----	<0.5	----	<0.5	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		----	<0.5	----	<0.5	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		----	<0.5	----	<0.5	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		----	<0.5	----	<0.5	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Pentachloroethane	76-01-7	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		----	<0.5	----	<0.5	----
EP074F: Halogenated Aromatic Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
Chlorobenzene	108-90-7	0.5	mg/kg		----	<0.5	----	<0.5	----
Bromobenzene	108-86-1	0.5	mg/kg		----	<0.5	----	<0.5	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		----	<0.5	----	<0.5	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		----	<0.5	----	<0.5	----
Bromodichloromethane	75-27-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Dibromochloromethane	124-48-1	0.5	mg/kg		----	<0.5	----	<0.5	----
Bromoform	75-25-2	0.5	mg/kg		----	<0.5	----	<0.5	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	<2
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	**0.8**	<0.5	<0.5	<0.8
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Fluorene	86-73-7	0.5	mg/kg		<0.5	**0.6**	<0.5	<0.5	<0.8
Phenanthrene	85-01-8	0.5	mg/kg		**1.0**	**7.3**	**0.5**	**1.1**	<0.8
Anthracene	120-12-7	0.5	mg/kg		<0.5	**1.6**	<0.5	<0.5	<0.8
Fluoranthene	206-44-0	0.5	mg/kg		**1.6**	**8.9**	**0.8**	**2.0**	<0.8
Pyrene	129-00-0	0.5	mg/kg		**1.6**	**9.3**	**0.8**	**2.0**	<0.8
Benz(a)anthracene	56-55-3	0.5	mg/kg		**0.6**	**3.8**	<0.5	**0.9**	<0.8
Chrysene	218-01-9	0.5	mg/kg		**0.6**	**3.6**	<0.5	**0.8**	<0.8

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		**0.7**	**4.0**	<0.5	**1.0**	<0.8
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	**1.4**	<0.5	<0.5	<0.8
Benzo(a)pyrene	50-32-8	0.5	mg/kg		**0.7**	**3.8**	<0.5	**0.9**	<0.8
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	**1.7**	<0.5	<0.5	<0.8
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	**2.0**	<0.5	<0.5	<0.8
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**6.8**	**48.8**	**2.1**	**8.7**	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		**0.8**	**4.9**	<0.5	**1.1**	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**1.1**	**5.2**	**0.6**	**1.4**	**1.0**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.4**	**5.4**	**1.2**	**1.7**	**1.9**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		----	<0.5	----	<0.5	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		----	<0.5	----	<0.5	----
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		----	<0.5	----	<0.5	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		----	<0.5	----	<0.5	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		----	<0.5	----	<0.5	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		----	<0.5	----	<0.5	----
Diethyl phthalate	84-66-2	0.5	mg/kg		----	<0.5	----	<0.5	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		----	<0.5	----	<0.5	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		----	<0.5	----	<0.5	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		----	<5.0	----	<5.0	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		----	<0.5	----	<0.5	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		----	<0.5	----	<0.5	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		----	<0.5	----	<0.5	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		----	<1.0	----	<1.0	----
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		----	<0.5	----	<0.5	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		----	<0.5	----	<0.5	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		----	<0.5	----	<0.5	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		----	<0.5	----	<0.5	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		----	<1.0	----	<1.0	----
Methapyrilene	91-80-5	0.5	mg/kg		----	<0.5	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		----	<0.5	----	<0.5	----
Acetophenone	98-86-2	0.5	mg/kg		----	<0.5	----	<0.5	----
Nitrobenzene	98-95-3	0.5	mg/kg		----	<0.5	----	<0.5	----
Isophorone	78-59-1	0.5	mg/kg		----	<0.5	----	<0.5	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		----	<1.0	----	<1.0	----
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		----	<1.0	----	<1.0	----
1-Naphthylamine	134-32-7	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		----	<0.5	----	<0.5	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		----	<0.5	----	<0.5	----
Azobenzene	103-33-3	1	mg/kg		----	<1	----	<1	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Phenacetin	62-44-2	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Aminobiphenyl	92-67-1	0.5	mg/kg		----	<0.5	----	<0.5	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		----	<0.5	----	<0.5	----
Pronamide	23950-58-5	0.5	mg/kg		----	<0.5	----	<0.5	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		----	<0.5	----	<0.5	----
Chlorobenzilate	510-15-6	0.5	mg/kg		----	<0.5	----	<0.5	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		----	<0.5	----	<0.5	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		----	<0.5	----	<0.5	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		----	<0.5	----	<0.5	----
Hexachloroethane	67-72-1	0.5	mg/kg		----	<0.5	----	<0.5	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		----	<0.5	----	<0.5	----
Hexachloropropylene	1888-71-7	0.5	mg/kg		----	<0.5	----	<0.5	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg		----	<0.5	----	<0.5	----
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		----	<2.5	----	<2.5	----
Pentachlorobenzene	608-93-5	0.5	mg/kg		----	<0.5	----	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		----	<1.0	----	<1.0	----
EP075H: Anilines and Benzidines									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP075H: Anilines and Benzidines - Continued									
Aniline	62-53-3	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Chloroaniline	106-47-8	0.5	mg/kg		----	<0.5	----	<0.5	----
2-Nitroaniline	88-74-4	1.0	mg/kg		----	<1.0	----	<1.0	----
3-Nitroaniline	99-09-2	1.0	mg/kg		----	<1.0	----	<1.0	----
Dibenzofuran	132-64-9	0.5	mg/kg		----	<0.5	----	<0.5	----
4-Nitroaniline	100-01-6	0.5	mg/kg		----	<0.5	----	<0.5	----
Carbazole	86-74-8	0.5	mg/kg		----	**0.7**	----	<0.5	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		----	<0.5	----	<0.5	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		----	<0.5	----	<0.5	----
beta-BHC	319-85-7	0.5	mg/kg		----	<0.5	----	<0.5	----
gamma-BHC	58-89-9	0.5	mg/kg		----	<0.5	----	<0.5	----
delta-BHC	319-86-8	0.5	mg/kg		----	<0.5	----	<0.5	----
Heptachlor	76-44-8	0.5	mg/kg		----	<0.5	----	<0.5	----
Aldrin	309-00-2	0.5	mg/kg		----	<0.5	----	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		----	<0.5	----	<0.5	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		----	<0.5	----	<0.5	----
4.4`-DDE	72-55-9	0.5	mg/kg		----	<0.5	----	<0.5	----
Dieldrin	60-57-1	0.5	mg/kg		----	<0.5	----	<0.5	----
Endrin	72-20-8	0.5	mg/kg		----	<0.5	----	<0.5	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		----	<0.5	----	<0.5	----
4.4`-DDD	72-54-8	0.5	mg/kg		----	<0.5	----	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		----	<0.5	----	<0.5	----
4.4`-DDT	50-29-3	1.0	mg/kg		----	<1.0	----	<1.0	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		----	<0.5	----	<0.5	----
Dimethoate	60-51-5	0.5	mg/kg		----	<0.5	----	<0.5	----
Diazinon	333-41-5	0.5	mg/kg		----	<0.5	----	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		----	<0.5	----	<0.5	----
Malathion	121-75-5	0.5	mg/kg		----	<0.5	----	<0.5	----
Fenthion	55-38-9	0.5	mg/kg		----	<0.5	----	<0.5	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		----	<0.5	----	<0.5	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		----	<0.5	----	<0.5	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		----	<0.5	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Prothiofos	34643-46-4	0.5	mg/kg		----	<0.5	----	<0.5	----
Ethion	563-12-2	0.5	mg/kg		----	<0.5	----	<0.5	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		**690**	**440**	**690**	<100	**270**
C29 - C36 Fraction	----	100	mg/kg		**450**	**330**	**550**	<100	**520**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**1140**	**770**	**1240**	<50	**790**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		**970**	**700**	**1080**	<100	**540**
>C34 - C40 Fraction	----	100	mg/kg		**280**	**100**	**280**	<100	**500**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		**1250**	**800**	**1360**	<50	**1040**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**89.6**	**117**	**102**	**105**	**99.2**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**124**	**91.0**	**116**	**90.5**	**121**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**63.9**	**95.4**	**85.9**	**79.0**	**72.6**
EP074S: VOC Surrogates									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_0.5_191128	MW11_3.5_1811 28	MW11_5.0_181128	BH12_0.1_181128	BH12_1.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-047	ES1939690-050	ES1939690-051	ES1939690-052	ES1939690-054
					Result	Result	Result	Result	Result
EP074S: VOC Surrogates - Continued									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		----	98.2	----	90.5	----
Toluene-D8	2037-26-5	0.5	%		----	93.1	----	98.6	----
4-Bromofluorobenzene	460-00-4	0.5	%		----	89.6	----	95.4	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		82.4	75.5	85.0	80.9	95.9
2-Chlorophenol-D4	93951-73-6	0.5	%		87.1	90.3	90.9	89.5	88.1
2.4.6-Tribromophenol	118-79-6	0.5	%		70.8	74.5	66.5	69.2	98.8
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		92.4	110	96.2	108	100
Anthracene-d10	1719-06-8	0.5	%		87.2	97.3	90.6	99.7	92.6
4-Terphenyl-d14	1718-51-0	0.5	%		90.1	91.6	93.3	90.2	92.6
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		----	62.0	----	59.1	----
Phenol-d6	13127-88-3	0.5	%		----	94.1	----	98.1	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	106	----	90.4	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	102	----	85.0	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		----	72.1	----	67.3	----
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		----	82.0	----	82.6	----
2-Fluorobiphenyl	321-60-8	0.5	%		----	121	----	117	----
Anthracene-d10	1719-06-8	0.5	%		----	110	----	113	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	112	----	118	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		98.2	82.0	89.0	82.1	91.1
Toluene-D8	2037-26-5	0.2	%		108	86.6	95.6	91.8	89.2
4-Bromofluorobenzene	460-00-4	0.2	%		108	96.3	98.8	98.4	78.6

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	5.7	----	4.0	----	10.9
pH OX (23B)	----	0.1	pH Unit	3.8	----	1.5	----	8.4
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	----	332	----	<2
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	----	8040	----	<2
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	----	7710	----	<2
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	<0.020	----	0.532	----	<0.020
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	<0.020	----	12.9	----	<0.020
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	<0.020	----	12.4	----	<0.020
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	<0.020	----	0.059	----	0.024
Peroxide Sulfur (23De)	----	0.020	% S	<0.020	----	2.24	----	0.072
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	<0.020	----	2.18	----	0.048
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	----	1360	----	30
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	<0.020	----	0.274	----	0.365
Peroxide Calcium (23Wh)	----	0.020	% Ca	<0.020	----	0.355	----	1.67
Acid Reacted Calcium (23X)	----	0.020	% Ca	<0.020	----	0.081	----	1.31
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	----	40	----	653
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	<0.020	----	0.065	----	1.05
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	<0.020	----	0.307	----	<0.020
Peroxide Magnesium (23Tm)	----	0.020	% Mg	<0.020	----	0.341	----	0.080
Acid Reacted Magnesium (23U)	----	0.020	% Mg	<0.020	----	0.034	----	0.080
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	----	28	----	66
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	<0.020	----	0.044	----	0.106
EA029-F: Excess Acid Neutralising Capacity								
Excess Acid Neutralising Capacity (23Q)	----	0.020	% CaCO3	----	----	----	----	3.54
acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	----	----	----	----	706
sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.020	% S	----	----	----	----	1.13

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EA029-F: Excess Acid Neutralising Capacity - Continued									
EA029-G: Retained Acidity									
HCl Extractable Sulfur (20Be)	----	0.020	% S		----	----	**0.046**	----	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S		----	----	<0.020	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t		----	----	<10	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S		----	----	<0.020	----	----
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		**1.5**	----	**1.5**	----	**1.5**
Net Acidity (sulfur units)	----	0.02	% S		<0.02	----	**2.70**	----	<0.02
Net Acidity (acidity units)	----	10	mole H+ / t		<10	----	**1690**	----	<10
Liming Rate	----	1	kg CaCO3/t		<1	----	**127**	----	<1
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		<0.02	----	**2.70**	----	**0.05**
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		<10	----	**1690**	----	**30**
Liming Rate excluding ANC	----	1	kg CaCO3/t		<1	----	**127**	----	**2**
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**16.1**	**1.6**	**83.7**	**82.3**	**22.4**
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		----	**No**	----	----	**No**
Asbestos (Trace)	1332-21-4	5	Fibres		----	**No**	----	----	**No**
Asbestos Type	1332-21-4	-	--		----	**-**	----	----	**-**
Synthetic Mineral Fibre	----	0.1	g/kg		----	**No**	----	----	**No**
Organic Fibre	----	0.1	g/kg		----	**No**	----	----	**No**
Sample weight (dry)	----	0.01	g		----	**520**	----	----	**462**
APPROVED IDENTIFIER:	----	-	--		----	**A. SMYLIE**	----	----	**A. SMYLIE**
EA200N: Asbestos Quantification (non-NATA)									
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g		----	<0.0004	----	----	<0.0004
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)		----	<0.001	----	----	<0.001
ø Asbestos Containing Material	1332-21-4	0.1	g		----	<0.1	----	----	<0.1
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)		----	<0.01	----	----	<0.01
ø Weight Used for % Calculation	----	0.0001	kg		----	**0.520**	----	----	**0.462**
ø Fibrous Asbestos >7mm	----	0.0004	g		----	<0.0004	----	----	<0.0004
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EG005(ED093)T: Total Metals by ICP-AES - Continued									
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		<2	**13**	**6**	**16**	**7**
Copper	7440-50-8	5	mg/kg		<5	**198**	**20**	**15**	**139**
Lead	7439-92-1	5	mg/kg		<5	**60**	**8**	**14**	**228**
Nickel	7440-02-0	2	mg/kg		<2	**24**	**4**	**14**	**18**
Zinc	7440-66-6	5	mg/kg		<5	**99**	**10**	**185**	**210**
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	**0.3**
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.2	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.08	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.15	<0.07	<0.07	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<1.0	<0.5	<0.5	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.25	<0.12	<0.12	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<1.0	<0.5	<0.5	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
				Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued								
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.08	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg	<0.05	<0.08	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<1.0	<0.5	<0.5	<0.2
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<1.0	<0.5	<0.5	<0.2
Malathion	121-75-5	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Parathion	56-38-2	0.2	mg/kg	<0.2	<1.0	<0.5	<0.5	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.25	<0.12	<0.12	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons								
Styrene	100-42-5	0.5	mg/kg	----	----	----	----	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg	----	----	----	----	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg	----	----	----	----	<0.5
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	----	----	----	----	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg	----	----	----	----	<0.5
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	----	----	----	----	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg	----	----	----	----	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg	----	----	----	----	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg	----	----	----	----	<0.5
EP074B: Oxygenated Compounds								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP074B: Oxygenated Compounds - Continued									
Vinyl Acetate	108-05-4	5	mg/kg		----	----	----	----	<5
2-Butanone (MEK)	78-93-3	5	mg/kg		----	----	----	----	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	----	----	----	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	----	----	----	<5
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		----	----	----	----	<0.5
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	----	----	----	<0.5
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	----	----	----	<0.5
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	----	----	----	<0.5
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	----	----	----	<5
Chloromethane	74-87-3	5	mg/kg		----	----	----	----	<5
Vinyl chloride	75-01-4	5	mg/kg		----	----	----	----	<5
Bromomethane	74-83-9	5	mg/kg		----	----	----	----	<5
Chloroethane	75-00-3	5	mg/kg		----	----	----	----	<5
Trichlorofluoromethane	75-69-4	5	mg/kg		----	----	----	----	<5
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	----	----	----	<0.5
Iodomethane	74-88-4	0.5	mg/kg		----	----	----	----	<0.5
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	----	----	----	<0.5
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	----	----	----	<0.5
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	----	----	----	<0.5
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	----	----	----	<0.5
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	----	----	----	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	----	----	----	<0.5
Trichloroethene	79-01-6	0.5	mg/kg		----	----	----	----	<0.5
Dibromomethane	74-95-3	0.5	mg/kg		----	----	----	----	<0.5
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		----	----	----	----	<0.5
1.3-Dichloropropane	142-28-9	0.5	mg/kg		----	----	----	----	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg		----	----	----	----	<0.5
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		----	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds - Continued									
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		----	----	----	----	<0.5
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		----	----	----	----	<0.5
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		----	----	----	----	<0.5
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		----	----	----	----	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		----	----	----	----	<0.5
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		----	----	----	----	<0.5
Bromobenzene	108-86-1	0.5	mg/kg		----	----	----	----	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg		----	----	----	----	<0.5
4-Chlorotoluene	106-43-4	0.5	mg/kg		----	----	----	----	<0.5
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		----	----	----	----	<0.5
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		----	----	----	----	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg		----	----	----	----	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg		----	----	----	----	<0.5
Bromoform	75-25-2	0.5	mg/kg		----	----	----	----	<0.5
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<4	<4	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<4	<4	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	**0.7**	<2.0	<2.0	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	**0.6**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<2.0	<2.0	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	**7.1**	<2.0	<2.0	**6.1**
Anthracene	120-12-7	0.5	mg/kg		<0.5	**2.4**	<2.0	<2.0	**1.3**
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	**13.1**	<2.0	<2.0	**6.2**
Pyrene	129-00-0	0.5	mg/kg		<0.5	**12.2**	<2.0	<2.0	**6.0**
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	**6.1**	<2.0	<2.0	**1.7**
Chrysene	218-01-9	0.5	mg/kg		<0.5	**5.5**	<2.0	<2.0	**1.6**
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	**7.0**	<2.0	<2.0	**1.8**
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	**2.3**	<2.0	<2.0	**0.7**
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	**5.9**	<2.0	<2.0	**1.7**
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	**2.8**	<2.0	<2.0	**0.7**
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	**0.6**	<2.0	<2.0	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	**4.3**	<2.0	<2.0	**0.9**
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	**70.0**	<1.0	<1.0	**29.3**
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	**8.4**	<0.5	<0.5	**2.2**
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**8.4**	**2.4**	**2.4**	**2.5**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**8.4**	**4.8**	**4.8**	**2.7**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		----	----	----	----	**0.6**
2-Chloronaphthalene	91-58-7	0.5	mg/kg		----	----	----	----	<0.5
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		----	----	----	----	<0.5
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		----	----	----	----	<0.5
3-Methylcholanthrene	56-49-5	0.5	mg/kg		----	----	----	----	<0.5
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		----	----	----	----	<0.5
Diethyl phthalate	84-66-2	0.5	mg/kg		----	----	----	----	<0.5
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		----	----	----	----	<0.5
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		----	----	----	----	<0.5
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		----	----	----	----	<5.0
Di-n-octylphthalate	117-84-0	0.5	mg/kg		----	----	----	----	<0.5
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		----	----	----	----	<1.0

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP075D: Nitrosamines - Continued									
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		----	----	----	----	<1.0
Methapyrilene	91-80-5	0.5	mg/kg		----	----	----	----	<0.5
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		----	----	----	----	<0.5
Acetophenone	98-86-2	0.5	mg/kg		----	----	----	----	<0.5
Nitrobenzene	98-95-3	0.5	mg/kg		----	----	----	----	<0.5
Isophorone	78-59-1	0.5	mg/kg		----	----	----	----	<0.5
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		----	----	----	----	<1.0
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		----	----	----	----	<1.0
1-Naphthylamine	134-32-7	0.5	mg/kg		----	----	----	----	<0.5
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		----	----	----	----	<0.5
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		----	----	----	----	<0.5
Azobenzene	103-33-3	1	mg/kg		----	----	----	----	<1
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		----	----	----	----	<0.5
Phenacetin	62-44-2	0.5	mg/kg		----	----	----	----	<0.5
4-Aminobiphenyl	92-67-1	0.5	mg/kg		----	----	----	----	<0.5
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		----	----	----	----	<0.5
Pronamide	23950-58-5	0.5	mg/kg		----	----	----	----	<0.5
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		----	----	----	----	<0.5
Chlorobenzilate	510-15-6	0.5	mg/kg		----	----	----	----	<0.5
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		----	----	----	----	<0.5
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		----	----	----	----	<0.5
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		----	----	----	----	<0.5
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		----	----	----	----	<0.5
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		----	----	----	----	<0.5
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		----	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP075G: Chlorinated Hydrocarbons - Continued									
Hexachloroethane	67-72-1	0.5	mg/kg		----	----	----	----	<0.5
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		----	----	----	----	<0.5
Hexachloropropylene	1888-71-7	0.5	mg/kg		----	----	----	----	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg		----	----	----	----	<0.5
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		----	----	----	----	<2.5
Pentachlorobenzene	608-93-5	0.5	mg/kg		----	----	----	----	<0.5
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		----	----	----	----	<1.0
EP075H: Anilines and Benzidines									
Aniline	62-53-3	0.5	mg/kg		----	----	----	----	<0.5
4-Chloroaniline	106-47-8	0.5	mg/kg		----	----	----	----	<0.5
2-Nitroaniline	88-74-4	1.0	mg/kg		----	----	----	----	<1.0
3-Nitroaniline	99-09-2	1.0	mg/kg		----	----	----	----	<1.0
Dibenzofuran	132-64-9	0.5	mg/kg		----	----	----	----	**0.7**
4-Nitroaniline	100-01-6	0.5	mg/kg		----	----	----	----	<0.5
Carbazole	86-74-8	0.5	mg/kg		----	----	----	----	**0.8**
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		----	----	----	----	<0.5
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		----	----	----	----	<0.5
beta-BHC	319-85-7	0.5	mg/kg		----	----	----	----	<0.5
gamma-BHC	58-89-9	0.5	mg/kg		----	----	----	----	<0.5
delta-BHC	319-86-8	0.5	mg/kg		----	----	----	----	<0.5
Heptachlor	76-44-8	0.5	mg/kg		----	----	----	----	<0.5
Aldrin	309-00-2	0.5	mg/kg		----	----	----	----	<0.5
Heptachlor epoxide	1024-57-3	0.5	mg/kg		----	----	----	----	<0.5
alpha-Endosulfan	959-98-8	0.5	mg/kg		----	----	----	----	<0.5
4.4`-DDE	72-55-9	0.5	mg/kg		----	----	----	----	<0.5
Dieldrin	60-57-1	0.5	mg/kg		----	----	----	----	<0.5
Endrin	72-20-8	0.5	mg/kg		----	----	----	----	<0.5
beta-Endosulfan	33213-65-9	0.5	mg/kg		----	----	----	----	<0.5
4.4`-DDD	72-54-8	0.5	mg/kg		----	----	----	----	<0.5
Endosulfan sulfate	1031-07-8	0.5	mg/kg		----	----	----	----	<0.5
4.4`-DDT	50-29-3	1.0	mg/kg		----	----	----	----	<1.0
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		----	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Dimethoate	60-51-5	0.5	mg/kg		----	----	----	----	<0.5
Diazinon	333-41-5	0.5	mg/kg		----	----	----	----	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		----	----	----	----	<0.5
Malathion	121-75-5	0.5	mg/kg		----	----	----	----	<0.5
Fenthion	55-38-9	0.5	mg/kg		----	----	----	----	<0.5
Chlorpyrifos	2921-88-2	0.5	mg/kg		----	----	----	----	<0.5
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		----	----	----	----	<0.5
Chlorfenvinphos	470-90-6	0.5	mg/kg		----	----	----	----	<0.5
Prothiofos	34643-46-4	0.5	mg/kg		----	----	----	----	<0.5
Ethion	563-12-2	0.5	mg/kg		----	----	----	----	<0.5
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<110	<110	<50
C15 - C28 Fraction	----	100	mg/kg		<100	**600**	**2890**	**2210**	**450**
C29 - C36 Fraction	----	100	mg/kg		<100	**1220**	**2340**	**4160**	**740**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	**1820**	**5230**	**6370**	**1190**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<110	<110	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	**1340**	**4580**	**5890**	**880**
>C34 - C40 Fraction	----	100	mg/kg		<100	**1280**	**1040**	**540**	**810**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	**2620**	**5620**	**6430**	**1690**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<110	<110	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.5	<0.5	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH12_2.5_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_ 191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-055	ES1939690-056	ES1939690-057	ES1939690-058	ES1939690-059
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		106	70.0	105	122	102
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		139	98.0	136	120	107
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		99.1	87.9	105	60.7	68.1
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		----	----	----	----	83.0
Toluene-D8	2037-26-5	0.5	%		----	----	----	----	104
4-Bromofluorobenzene	460-00-4	0.5	%		----	----	----	----	92.7
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		100	101	102	86.7	73.2
2-Chlorophenol-D4	93951-73-6	0.5	%		94.5	95.0	97.6	110	86.4
2.4.6-Tribromophenol	118-79-6	0.5	%		94.4	92.4	113	120	70.5
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		111	116	110	124	105
Anthracene-d10	1719-06-8	0.5	%		111	109	106	115	94.7
4-Terphenyl-d14	1718-51-0	0.5	%		105	106	99.2	125	86.8
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		----	----	----	----	64.3
Phenol-d6	13127-88-3	0.5	%		----	----	----	----	83.2
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	----	103
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	----	87.6
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		----	----	----	----	70.1
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		----	----	----	----	79.7
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	----	114
Anthracene-d10	1719-06-8	0.5	%		----	----	----	----	113
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	----	98.8
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		96.3	120	75.8	86.2	94.7
Toluene-D8	2037-26-5	0.2	%		98.3	127	77.0	87.5	97.1
4-Bromofluorobenzene	460-00-4	0.2	%		99.6	122	73.5	87.0	96.8

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH14_1.0_191128	BH14_3.0_191128	BH15_0.2_181128	BH15_2.5_191128	BH16_0.1_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-060	ES1939690-062	ES1939690-063	ES1939690-065	ES1939690-066
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	4.6	----	4.1	----
pH OX (23B)	----	0.1	pH Unit	----	2.0	----	1.8	----
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	102	----	171	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	1750	----	5160	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	1650	----	4980	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	0.163	----	0.274	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	2.81	----	8.26	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	2.65	----	7.99	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	<0.020	----	0.023	----
Peroxide Sulfur (23De)	----	0.020	% S	----	0.669	----	1.80	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	0.669	----	1.78	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	418	----	1110	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.087	----	0.109	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.168	----	0.116	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	0.081	----	<0.020	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	40	----	<10	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	0.065	----	<0.020	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	0.070	----	0.173	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	0.136	----	0.180	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	0.066	----	<0.020	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	54	----	<10	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	0.087	----	<0.020	----
EA029-G: Retained Acidity								
HCl Extractable Sulfur (20Be)	----	0.020	% S	----	----	----	0.023	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	----	----	----	<0.020	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	----	----	<10	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	----	----	----	<0.020	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH14_1.0_191128	BH14_3.0_191128	BH15_0.2_181128	BH15_2.5_191128	BH16_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-060	ES1939690-062	ES1939690-063	ES1939690-065	ES1939690-066
					Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting									
ANC Fineness Factor	----	0.5	-		----	1.5	----	1.5	----
Net Acidity (sulfur units)	----	0.02	% S		----	0.83	----	2.05	----
Net Acidity (acidity units)	----	10	mole H+ / t		----	519	----	1280	----
Liming Rate	----	1	kg CaCO3/t		----	39	----	96	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		----	0.83	----	2.05	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		----	519	----	1280	----
Liming Rate excluding ANC	----	1	kg CaCO3/t		----	39	----	96	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		10.9	69.5	20.9	75.4	1.7
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		No	----	No	----	No
Asbestos (Trace)	1332-21-4	5	Fibres		No	----	No	----	No
Asbestos Type	1332-21-4	-	--		-	----	-	----	-
Synthetic Mineral Fibre	----	0.1	g/kg		No	----	No	----	No
Organic Fibre	----	0.1	g/kg		No	----	No	----	No
Sample weight (dry)	----	0.01	g		339	----	410	----	265
APPROVED IDENTIFIER:	----	-	--		A. SMYLIE	----	A. SMYLIE	----	A. SMYLIE
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		9	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		3	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		17	22	8	21	3
Copper	7440-50-8	5	mg/kg		142	21	48	14	16
Lead	7439-92-1	5	mg/kg		543	11	205	8	93
Nickel	7440-02-0	2	mg/kg		16	10	13	14	<2
Zinc	7440-66-6	5	mg/kg		1570	20	172	5	70
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		0.6	<0.1	0.5	<0.1	0.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH14_1.0_191128	BH14_3.0_191128	BH15_0.2_181128	BH15_2.5_191128	BH16_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-060	ES1939690-062	ES1939690-063	ES1939690-065	ES1939690-066
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.3	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.3	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.3	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.3	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.3	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH14_1.0_191128	BH14_3.0_191128	BH15_0.2_181128	BH15_2.5_191128	BH16_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-060	ES1939690-062	ES1939690-063	ES1939690-065	ES1939690-066
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.06	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<2	<1	<2	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.8	**0.9**	<1.0	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		**2.6**	<0.8	**2.6**	<1.0	**0.6**
Anthracene	120-12-7	0.5	mg/kg		**0.7**	<0.8	**1.1**	<1.0	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		**4.2**	**1.7**	**7.8**	<1.0	**1.0**
Pyrene	129-00-0	0.5	mg/kg		**4.2**	**0.9**	**8.0**	**1.2**	**1.0**
Benz(a)anthracene	56-55-3	0.5	mg/kg		**1.8**	<0.8	**3.8**	<1.0	<0.5
Chrysene	218-01-9	0.5	mg/kg		**1.7**	<0.8	**3.6**	<1.0	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		**2.2**	<0.8	**4.5**	<1.0	**0.5**
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		**0.8**	<0.8	**1.6**	<1.0	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		**1.9**	<0.8	**4.1**	<1.0	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH14_1.0_191128	BH14_3.0_191128	BH15_0.2_181128	BH15_2.5_191128	BH16_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-060	ES1939690-062	ES1939690-063	ES1939690-065	ES1939690-066
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		**0.8**	<0.8	**1.8**	<1.0	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.8	<0.5	<1.0	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		**1.1**	<0.8	**2.3**	<1.0	<0.5
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**22.0**	**2.6**	**42.1**	**1.2**	**3.1**
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		**2.5**	<0.5	**5.3**	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**2.7**	**1.0**	**5.6**	**1.2**	**0.6**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**3.0**	**1.9**	**5.8**	**2.4**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<60	<50
C15 - C28 Fraction	----	100	mg/kg		**190**	**330**	**280**	**430**	<100
C29 - C36 Fraction	----	100	mg/kg		**300**	**490**	**380**	**1390**	**140**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**490**	**820**	**660**	**1820**	**140**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<60	<50
>C16 - C34 Fraction	----	100	mg/kg		**370**	**640**	**520**	**1220**	**120**
>C34 - C40 Fraction	----	100	mg/kg		**280**	**340**	**350**	**1430**	**170**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		**650**	**980**	**870**	**2650**	**290**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<60	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**110**	**125**	**104**	**85.8**	**81.9**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH14_1.0_191128	BH14_3.0_191128	BH15_0.2_181128	BH15_2.5_191128	BH16_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-060	ES1939690-062	ES1939690-063	ES1939690-065	ES1939690-066
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		85.2	93.3	104	60.4	89.7
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		81.7	77.9	60.8	69.5	81.6
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		103	111	101	102	101
2-Chlorophenol-D4	93951-73-6	0.5	%		97.6	105	94.7	96.3	95.8
2.4.6-Tribromophenol	118-79-6	0.5	%		113	116	110	110	100
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		116	117	113	113	115
Anthracene-d10	1719-06-8	0.5	%		112	114	110	107	112
4-Terphenyl-d14	1718-51-0	0.5	%		105	107	104	103	106
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		92.7	87.9	103	89.0	106
Toluene-D8	2037-26-5	0.2	%		98.0	91.0	106	91.3	110
4-Bromofluorobenzene	460-00-4	0.2	%		91.2	88.5	102	87.1	105

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	**3.7**	----	**7.4**	**4.6**
pH OX (23B)	----	0.1	pH Unit	----	**1.6**	----	**6.3**	**2.1**
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	**342**	----	<2	**26**
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	**7660**	----	<2	**1180**
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	**7320**	----	<2	**1150**
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	**0.548**	----	<0.020	**0.041**
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	**12.3**	----	<0.020	**1.88**
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	**11.7**	----	<0.020	**1.84**
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	**0.155**	----	<0.020	<0.020
Peroxide Sulfur (23De)	----	0.020	% S	----	**2.61**	----	<0.020	**0.564**
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	**2.46**	----	<0.020	**0.564**
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	**1530**	----	<10	**352**
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	**0.672**	----	**0.053**	**0.054**
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	**0.810**	----	**0.060**	**0.062**
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	**0.138**	----	<0.020	<0.020
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	**69**	----	<10	<10
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	**0.110**	----	<0.020	<0.020
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	**0.127**	----	<0.020	**0.091**
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	**0.136**	----	<0.020	**0.106**
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	<0.020	----	<0.020	<0.020
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	<10	----	<10	**12**
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	<0.020	----	<0.020	<0.020
EA029-G: Retained Acidity								
HCl Extractable Sulfur (20Be)	----	0.020	% S	----	**0.131**	----	----	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	----	<0.020	----	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	<10	----	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	----	<0.020	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
				Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	----	1.5	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	2.99	----	<0.02	0.60
Net Acidity (acidity units)	----	10	mole H+ / t	----	1860	----	<10	377
Liming Rate	----	1	kg CaCO3/t	----	140	----	<1	28
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	2.99	----	<0.02	0.60
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	1860	----	<10	377
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	140	----	<1	28
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	6.3	63.8	2.2	2.4	61.5
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	No	No	----
Asbestos (Trace)	1332-21-4	5	Fibres	No	----	No	No	----
Asbestos Type	1332-21-4	-	--	-	----	-	-	----
Synthetic Mineral Fibre	----	0.1	g/kg	No	----	No	No	----
Organic Fibre	----	0.1	g/kg	No	----	No	No	----
Sample weight (dry)	----	0.01	g	261	----	276	318	----
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	A. SMYLIE	A. SMYLIE	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	<0.0004	----	<0.0004	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	<0.001	----	<0.001	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g	<0.1	----	<0.1	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	<0.01	----	<0.01	----	----
ø Weight Used for % Calculation	----	0.0001	kg	0.261	----	0.276	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g	<0.0004	----	<0.0004	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	10	3	4	<2	22
Copper	7440-50-8	5	mg/kg	30	<5	16	12	14
Lead	7439-92-1	5	mg/kg	534	<5	115	39	10
Nickel	7440-02-0	2	mg/kg	7	<2	2	<2	9
Zinc	7440-66-6	5	mg/kg	252	135	152	96	9

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
				Result	Result	Result	Result	Result
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	**0.6**	<0.1	**0.2**	**0.1**	<0.1
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Isopropylbenzene	98-82-8	0.5	mg/kg		<0.5	----	<0.5	----	----
n-Propylbenzene	103-65-1	0.5	mg/kg		<0.5	----	<0.5	----	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		<0.5	----	<0.5	----	----
sec-Butylbenzene	135-98-8	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		<0.5	----	<0.5	----	----
tert-Butylbenzene	98-06-6	0.5	mg/kg		<0.5	----	<0.5	----	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg		<0.5	----	<0.5	----	----
n-Butylbenzene	104-51-8	0.5	mg/kg		<0.5	----	<0.5	----	----
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		<5	----	<5	----	----
2-Butanone (MEK)	78-93-3	5	mg/kg		<5	----	<5	----	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		<5	----	<5	----	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		<5	----	<5	----	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		<0.5	----	<0.5	----	----
EP074D: Fumigants									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP074D: Fumigants - Continued									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	----	<0.5	----	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	----	<0.5	----	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	----	<0.5	----	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	----	<5	----	----
Chloromethane	74-87-3	5	mg/kg		<5	----	<5	----	----
Vinyl chloride	75-01-4	5	mg/kg		<5	----	<5	----	----
Bromomethane	74-83-9	5	mg/kg		<5	----	<5	----	----
Chloroethane	75-00-3	5	mg/kg		<5	----	<5	----	----
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	----	<5	----	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Iodomethane	74-88-4	0.5	mg/kg		<0.5	----	<0.5	----	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	----	<0.5	----	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	----	<0.5	----	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	----	<0.5	----	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	----	<0.5	----	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	----	<0.5	----	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	----	<0.5	----	----
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	----	<0.5	----	----
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	----	<0.5	----	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	----	<0.5	----	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	----	<0.5	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	----	<0.5	----	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	----	<0.5	----	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	----	<0.5	----	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	----	<0.5	----	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	----	<0.5	----	----
EP074F: Halogenated Aromatic Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	----	<0.5	----	----
Bromobenzene	108-86-1	0.5	mg/kg		<0.5	----	<0.5	----	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		<0.5	----	<0.5	----	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Dibromochloromethane	124-48-1	0.5	mg/kg		<0.5	----	<0.5	----	----
Bromoform	75-25-2	0.5	mg/kg		<0.5	----	<0.5	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<2	<1	<1	<2
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.8	**0.5**	<0.5	<0.8
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.8	**3.7**	<0.5	<0.8
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.8	**0.7**	<0.5	<0.8
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.8	**5.7**	<0.5	<0.8
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.8	**5.7**	<0.5	**0.9**
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.8	**2.6**	<0.5	<0.8
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.8	**2.4**	<0.5	<0.8

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.8	**3.1**	<0.5	<0.8
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.8	**1.0**	<0.5	<0.8
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.8	**2.6**	<0.5	<0.8
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.8	**0.9**	<0.5	<0.8
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.8	<0.5	<0.5	<0.8
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.8	**1.0**	<0.5	<0.8
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<0.5	<0.5	**29.9**	<0.5	**0.9**
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	**3.4**	<0.5	<0.5
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**1.0**	**3.6**	**0.6**	**1.0**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.9**	**3.9**	**1.2**	**1.9**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		<0.5	----	<0.5	----	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		<0.5	----	<0.5	----	----
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		<0.5	----	<0.5	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		<0.5	----	<0.5	----	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		<0.5	----	<0.5	----	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Diethyl phthalate	84-66-2	0.5	mg/kg		<0.5	----	<0.5	----	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		<0.5	----	<0.5	----	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		<0.5	----	<0.5	----	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		<5.0	----	<5.0	----	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		<0.5	----	<0.5	----	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		<0.5	----	<0.5	----	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		<0.5	----	<0.5	----	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		<1.0	----	<1.0	----	----
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		<0.5	----	<0.5	----	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		<0.5	----	<0.5	----	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		<0.5	----	<0.5	----	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		<0.5	----	<0.5	----	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		<1.0	----	<1.0	----	----
Methapyrilene	91-80-5	0.5	mg/kg		<0.5	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Acetophenone	98-86-2	0.5	mg/kg		<0.5	----	<0.5	----	----
Nitrobenzene	98-95-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Isophorone	78-59-1	0.5	mg/kg		<0.5	----	<0.5	----	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		<1.0	----	<1.0	----	----
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		<1.0	----	<1.0	----	----
1-Naphthylamine	134-32-7	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		<0.5	----	<0.5	----	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Azobenzene	103-33-3	1	mg/kg		<1	----	<1	----	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Phenacetin	62-44-2	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Aminobiphenyl	92-67-1	0.5	mg/kg		<0.5	----	<0.5	----	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Pronamide	23950-58-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		<0.5	----	<0.5	----	----
Chlorobenzilate	510-15-6	0.5	mg/kg		<0.5	----	<0.5	----	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		<0.5	----	<0.5	----	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		<0.5	----	<0.5	----	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		<0.5	----	<0.5	----	----
Hexachloroethane	67-72-1	0.5	mg/kg		<0.5	----	<0.5	----	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		<0.5	----	<0.5	----	----
Hexachloropropylene	1888-71-7	0.5	mg/kg		<0.5	----	<0.5	----	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	----	<0.5	----	----
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		<2.5	----	<2.5	----	----
Pentachlorobenzene	608-93-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		<1.0	----	<1.0	----	----
EP075H: Anilines and Benzidines									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP075H: Anilines and Benzidines - Continued									
Aniline	62-53-3	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Chloroaniline	106-47-8	0.5	mg/kg		<0.5	----	<0.5	----	----
2-Nitroaniline	88-74-4	1.0	mg/kg		<1.0	----	<1.0	----	----
3-Nitroaniline	99-09-2	1.0	mg/kg		<1.0	----	<1.0	----	----
Dibenzofuran	132-64-9	0.5	mg/kg		<0.5	----	<0.5	----	----
4-Nitroaniline	100-01-6	0.5	mg/kg		<0.5	----	<0.5	----	----
Carbazole	86-74-8	0.5	mg/kg		<0.5	----	<0.5	----	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		<0.5	----	<0.5	----	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		<0.5	----	<0.5	----	----
beta-BHC	319-85-7	0.5	mg/kg		<0.5	----	<0.5	----	----
gamma-BHC	58-89-9	0.5	mg/kg		<0.5	----	<0.5	----	----
delta-BHC	319-86-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Heptachlor	76-44-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Aldrin	309-00-2	0.5	mg/kg		<0.5	----	<0.5	----	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		<0.5	----	<0.5	----	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		<0.5	----	<0.5	----	----
4.4`-DDE	72-55-9	0.5	mg/kg		<0.5	----	<0.5	----	----
Dieldrin	60-57-1	0.5	mg/kg		<0.5	----	<0.5	----	----
Endrin	72-20-8	0.5	mg/kg		<0.5	----	<0.5	----	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		<0.5	----	<0.5	----	----
4.4`-DDD	72-54-8	0.5	mg/kg		<0.5	----	<0.5	----	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		<0.5	----	<0.5	----	----
4.4`-DDT	50-29-3	1.0	mg/kg		<1.0	----	<1.0	----	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		<0.5	----	<0.5	----	----
Dimethoate	60-51-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Diazinon	333-41-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		<0.5	----	<0.5	----	----
Malathion	121-75-5	0.5	mg/kg		<0.5	----	<0.5	----	----
Fenthion	55-38-9	0.5	mg/kg		<0.5	----	<0.5	----	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		<0.5	----	<0.5	----	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		<0.5	----	<0.5	----	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		<0.5	----	<0.5	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued									
Prothiofos	34643-46-4	0.5	mg/kg		<0.5	----	<0.5	----	----
Ethion	563-12-2	0.5	mg/kg		<0.5	----	<0.5	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg		<100	**990**	**110**	<100	**260**
C29 - C36 Fraction	----	100	mg/kg		<100	**1660**	<100	<100	**750**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	**2650**	**110**	<50	**1010**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	**60**	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	**2050**	**160**	<100	**660**
>C34 - C40 Fraction	----	100	mg/kg		<100	**1100**	<100	<100	**790**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	**3210**	**160**	<50	**1450**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	**60**	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**128**	**127**	**124**	**86.6**	**70.1**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**107**	**86.8**	**102**	**124**	**61.9**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**73.2**	**79.4**	**96.6**	**64.0**	**63.4**
EP074S: VOC Surrogates									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH16_0.9_191128	BH16_1.7_191128	BH17_0.1_191128	BH17_0.5_191128	BH17_2.5_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-068	ES1939690-070	ES1939690-072	ES1939690-073	ES1939690-075
					Result	Result	Result	Result	Result
EP074S: VOC Surrogates - Continued									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		88.6	----	95.6	----	----
Toluene-D8	2037-26-5	0.5	%		106	----	118	----	----
4-Bromofluorobenzene	460-00-4	0.5	%		102	----	110	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		73.9	109	75.5	106	108
2-Chlorophenol-D4	93951-73-6	0.5	%		88.8	103	88.9	100	102
2.4.6-Tribromophenol	118-79-6	0.5	%		76.5	121	73.6	102	112
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		109	119	108	115	115
Anthracene-d10	1719-06-8	0.5	%		103	112	96.6	111	109
4-Terphenyl-d14	1718-51-0	0.5	%		92.6	109	88.9	107	106
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		79.1	----	93.9	----	----
Phenol-d6	13127-88-3	0.5	%		119	----	118	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		114	----	121	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		60.6	----	61.3	----	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		129	----	107	----	----
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		102	----	107	----	----
2-Fluorobiphenyl	321-60-8	0.5	%		115	----	115	----	----
Anthracene-d10	1719-06-8	0.5	%		112	----	107	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		107	----	113	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		90.0	107	97.0	106	85.0
Toluene-D8	2037-26-5	0.2	%		98.9	111	109	111	88.2
4-Bromofluorobenzene	460-00-4	0.2	%		109	108	116	105	84.4

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	----	5.7	----	4.9
pH OX (23B)	----	0.1	pH Unit	----	----	3.2	----	1.7
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	----	<2	----	137
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	<2	----	7140
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	<2	----	7000
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	<0.020	----	0.220
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	<0.020	----	11.4
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	<0.020	----	11.2
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	<0.020	----	0.058
Peroxide Sulfur (23De)	----	0.020	% S	----	----	0.034	----	2.41
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	0.034	----	2.36
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	21	----	1470
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	<0.020	----	1.06
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	<0.020	----	1.43
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	<0.020	----	0.367
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	<10	----	183
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	<0.020	----	0.294
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	<0.020	----	0.108
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	<0.020	----	0.136
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	<0.020	----	0.028
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	<10	----	23
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	<0.020	----	0.036
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	1.5	----	1.5
Net Acidity (sulfur units)	----	0.02	% S	----	----	0.03	----	2.58
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	21	----	1610
Liming Rate	----	1	kg CaCO3/t	----	----	2	----	120

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting - Continued									
Net Acidity excluding ANC (sulfur units)	----	0.02	% S		----	----	0.03	----	2.58
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t		----	----	21	----	1610
Liming Rate excluding ANC	----	1	kg CaCO3/t		----	----	2	----	120
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		11.4	9.1	22.9	13.4	73.8
EA200: AS 4964 - 2004 Identification of Asbestos in Soils									
Asbestos Detected	1332-21-4	0.1	g/kg		No	No	----	No*	----
Asbestos (Trace)	1332-21-4	5	Fibres		No	No	----	No	----
Asbestos Type	1332-21-4	-	--		-	-	----	Ch	----
Synthetic Mineral Fibre	----	0.1	g/kg		No	No	----	No	----
Organic Fibre	----	0.1	g/kg		No	No	----	No	----
Sample weight (dry)	----	0.01	g		227	260	----	315	----
APPROVED IDENTIFIER:	----	-	--		A. SMYLIE	A. SMYLIE	----	A. SMYLIE	----
EA200N: Asbestos Quantification (non-NATA)									
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g		<0.0004	----	----	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)		<0.001	----	----	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g		<0.1	----	----	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)		<0.01	----	----	----	----
ø Weight Used for % Calculation	----	0.0001	kg		0.227	----	----	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g		<0.0004	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	6	<1
Chromium	7440-47-3	2	mg/kg		3	3	<2	12	5
Copper	7440-50-8	5	mg/kg		10	25	<5	235	<5
Lead	7439-92-1	5	mg/kg		109	87	<5	446	<5
Nickel	7440-02-0	2	mg/kg		<2	<2	<2	20	3
Zinc	7440-66-6	5	mg/kg		137	53	<5	576	7
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		0.1	0.5	<0.1	1.2	<0.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		**0.17**	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		**0.17**	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Isopropylbenzene	98-82-8	0.5	mg/kg		<0.5	----	----	<0.5	----
n-Propylbenzene	103-65-1	0.5	mg/kg		<0.5	----	----	<0.5	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		<0.5	----	----	<0.5	----
sec-Butylbenzene	135-98-8	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		<0.5	----	----	<0.5	----
tert-Butylbenzene	98-06-6	0.5	mg/kg		<0.5	----	----	<0.5	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg		<0.5	----	----	<0.5	----
n-Butylbenzene	104-51-8	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		<5	----	----	<5	----
2-Butanone (MEK)	78-93-3	5	mg/kg		<5	----	----	<5	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		<5	----	----	<5	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		<5	----	----	<5	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	----	----	<0.5	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	----	----	<0.5	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	----	----	<5	----
Chloromethane	74-87-3	5	mg/kg		<5	----	----	<5	----
Vinyl chloride	75-01-4	5	mg/kg		<5	----	----	<5	----
Bromomethane	74-83-9	5	mg/kg		<5	----	----	<5	----
Chloroethane	75-00-3	5	mg/kg		<5	----	----	<5	----
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	----	----	<5	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Iodomethane	74-88-4	0.5	mg/kg		<0.5	----	----	<0.5	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	----	----	<0.5	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	----	----	<0.5	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	----	----	<0.5	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Bromobenzene	108-86-1	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		<0.5	----	----	<0.5	----
EP074G: Trihalomethanes									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP074G: Trihalomethanes - Continued									
Chloroform	67-66-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Bromodichloromethane	75-27-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Dibromochloromethane	124-48-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Bromoform	75-25-2	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<1	<1	<1	<1	<2
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	**2.2**	<0.5	**3.3**	<0.8
Anthracene	120-12-7	0.5	mg/kg		<0.5	**0.6**	<0.5	**1.0**	<0.8
Fluoranthene	206-44-0	0.5	mg/kg		**0.8**	**3.8**	<0.5	**7.5**	<0.8
Pyrene	129-00-0	0.5	mg/kg		**0.8**	**3.8**	<0.5	**7.3**	<0.8
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	**1.7**	<0.5	**3.5**	<0.8
Chrysene	218-01-9	0.5	mg/kg		<0.5	**1.6**	<0.5	**3.2**	<0.8
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	**1.8**	<0.5	**3.8**	<0.8
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	**0.7**	<0.5	**1.4**	<0.8
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	**1.6**	<0.5	**3.7**	<0.8
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	**0.6**	<0.5	**1.2**	<0.8
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.8
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	**0.7**	<0.5	**1.2**	<0.8

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		**1.6**	**19.1**	<0.5	**37.1**	<0.5
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	**2.1**	<0.5	**4.7**	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**2.4**	**0.6**	**5.0**	**1.0**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**2.6**	**1.2**	**5.2**	**1.9**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		<0.5	----	----	<0.5	----
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		<0.5	----	----	<0.5	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		<0.5	----	----	<0.5	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Diethyl phthalate	84-66-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		<0.5	----	----	<0.5	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		<5.0	----	----	<5.0	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		<1.0	----	----	<1.0	----
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		<0.5	----	----	<0.5	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		<1.0	----	----	<1.0	----
Methapyrilene	91-80-5	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Acetophenone	98-86-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Nitrobenzene	98-95-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Isophorone	78-59-1	0.5	mg/kg		<0.5	----	----	<0.5	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		<1.0	----	----	<1.0	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP075E: Nitroaromatics and Ketones - Continued									
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		<1.0	----	----	<1.0	----
1-Naphthylamine	134-32-7	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		<0.5	----	----	<0.5	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Azobenzene	103-33-3	1	mg/kg		<1	----	----	<1	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Phenacetin	62-44-2	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Aminobiphenyl	92-67-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Pronamide	23950-58-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorobenzilate	510-15-6	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		<0.5	----	----	<0.5	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachloroethane	67-72-1	0.5	mg/kg		<0.5	----	----	<0.5	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachloropropylene	1888-71-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		<2.5	----	----	<2.5	----
Pentachlorobenzene	608-93-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		<1.0	----	----	<1.0	----
EP075H: Anilines and Benzidines									
Aniline	62-53-3	0.5	mg/kg		<0.5	----	----	<0.5	----
4-Chloroaniline	106-47-8	0.5	mg/kg		<0.5	----	----	<0.5	----
2-Nitroaniline	88-74-4	1.0	mg/kg		<1.0	----	----	<1.0	----
3-Nitroaniline	99-09-2	1.0	mg/kg		<1.0	----	----	<1.0	----
Dibenzofuran	132-64-9	0.5	mg/kg		<0.5	----	----	<0.5	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP075H: Anilines and Benzidines - Continued									
4-Nitroaniline	100-01-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Carbazole	86-74-8	0.5	mg/kg		<0.5	----	----	<0.5	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		<0.5	----	----	<0.5	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		<0.5	----	----	<0.5	----
beta-BHC	319-85-7	0.5	mg/kg		<0.5	----	----	<0.5	----
gamma-BHC	58-89-9	0.5	mg/kg		<0.5	----	----	<0.5	----
delta-BHC	319-86-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Heptachlor	76-44-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Aldrin	309-00-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		<0.5	----	----	<0.5	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		<0.5	----	----	<0.5	----
4.4`-DDE	72-55-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Dieldrin	60-57-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Endrin	72-20-8	0.5	mg/kg		<0.5	----	----	<0.5	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		<0.5	----	----	<0.5	----
4.4`-DDD	72-54-8	0.5	mg/kg		<0.5	----	----	<0.5	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		<0.5	----	----	<0.5	----
4.4`-DDT	50-29-3	1.0	mg/kg		<1.0	----	----	<1.0	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		<0.5	----	----	<0.5	----
Dimethoate	60-51-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Diazinon	333-41-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		<0.5	----	----	<0.5	----
Malathion	121-75-5	0.5	mg/kg		<0.5	----	----	<0.5	----
Fenthion	55-38-9	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		<0.5	----	----	<0.5	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		<0.5	----	----	<0.5	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		<0.5	----	----	<0.5	----
Prothiofos	34643-46-4	0.5	mg/kg		<0.5	----	----	<0.5	----
Ethion	563-12-2	0.5	mg/kg		<0.5	----	----	<0.5	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP080/071: Total Petroleum Hydrocarbons - Continued									
C15 - C28 Fraction	----	100	mg/kg		<100	<100	<100	**280**	**530**
C29 - C36 Fraction	----	100	mg/kg		<100	<100	<100	**250**	**950**
^ C10 - C36 Fraction (sum)	----	50	mg/kg		<50	<50	<50	**530**	**1480**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	<100	**450**	**1110**
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	<100	**160**	**820**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		<50	<50	<50	**610**	**1930**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<50	<50	<50	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**113**	**73.7**	**112**	**125**	**124**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**76.8**	**61.9**	**126**	**139**	**97.3**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**94.6**	**62.7**	**62.2**	**95.8**	**112**
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		**85.4**	----	----	**89.7**	----
Toluene-D8	2037-26-5	0.5	%		**108**	----	----	**99.1**	----
4-Bromofluorobenzene	460-00-4	0.5	%		**104**	----	----	**101**	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**90.8**	**105**	**105**	**73.5**	**97.9**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH18_2.8_191129	BH19_0.5_191129	BH19_1.5_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-076	ES1939690-077	ES1939690-079	ES1939690-081	ES1939690-083
					Result	Result	Result	Result	Result
EP075(SIM)S: Phenolic Compound Surrogates - Continued									
2-Chlorophenol-D4	93951-73-6	0.5	%		109	99.5	99.8	86.9	92.0
2.4.6-Tribromophenol	118-79-6	0.5	%		99.5	109	100	78.4	108
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		124	120	115	106	113
Anthracene-d10	1719-06-8	0.5	%		123	118	113	96.4	108
4-Terphenyl-d14	1718-51-0	0.5	%		110	114	110	88.9	106
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		78.5	----	----	84.7	----
Phenol-d6	13127-88-3	0.5	%		98.7	----	----	106	----
2-Chlorophenol-D4	93951-73-6	0.5	%		111	----	----	113	----
2.4.6-Tribromophenol	118-79-6	0.5	%		86.4	----	----	83.9	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		101	----	----	131	----
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		100	----	----	105	----
2-Fluorobiphenyl	321-60-8	0.5	%		116	----	----	115	----
Anthracene-d10	1719-06-8	0.5	%		111	----	----	108	----
4-Terphenyl-d14	1718-51-0	0.5	%		101	----	----	101	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		87.2	105	83.4	75.2	78.9
Toluene-D8	2037-26-5	0.2	%		101	110	90.1	92.0	78.1
4-Bromofluorobenzene	460-00-4	0.2	%		111	107	94.2	110	72.1

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	4.4	----	5.2	5.1	----
pH OX (23B)	----	0.1	pH Unit	2.4	----	2.0	2.2	----
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	56	----	108	22	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	875	----	4930	879	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	818	----	4820	857	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	0.091	----	0.172	0.035	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	1.40	----	7.91	1.41	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	1.31	----	7.73	1.37	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	<0.020	----	<0.020	<0.020	----
Peroxide Sulfur (23De)	----	0.020	% S	0.299	----	1.67	0.444	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	0.299	----	1.67	0.444	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	187	----	1040	277	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	0.048	----	1.15	0.312	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	0.049	----	0.821	0.320	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	<0.020	----	<0.020	<0.020	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	----	<10	<10	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	<0.020	----	<0.020	<0.020	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	0.103	----	0.080	0.088	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	0.103	----	0.101	0.112	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	<0.020	----	0.021	0.023	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	----	17	19	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	<0.020	----	0.028	0.030	----
EA029-G: Retained Acidity								
HCl Extractable Sulfur (20Be)	----	0.020	% S	<0.020	----	----	----	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	<0.020	----	----	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	<10	----	----	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	<0.020	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
				Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	1.5	----	1.5	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	0.39	----	1.84	0.48	----
Net Acidity (acidity units)	----	10	mole H+ / t	243	----	1150	299	----
Liming Rate	----	1	kg CaCO3/t	18	----	86	22	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.39	----	1.84	0.48	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	243	----	1150	299	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	18	----	86	22	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	71.9	8.2	71.7	50.6	20.8
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	Yes	No	----	No
Asbestos (Trace)	1332-21-4	5	Fibres	----	No	No	----	No
Asbestos Type	1332-21-4	-	--	----	Ch	-	----	-
Synthetic Mineral Fibre	----	0.1	g/kg	----	No	No	----	No
Organic Fibre	----	0.1	g/kg	----	No	No	----	No
Sample weight (dry)	----	0.01	g	----	323	142	----	271
APPROVED IDENTIFIER:	----	-	--	----	A. SMYLIE	A. SMYLIE	----	A. SMYLIE
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	0.265	----	----	<0.0004
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	0.082	----	----	<0.001
ø Asbestos Containing Material	1332-21-4	0.1	g	----	<0.1	----	----	<0.1
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	<0.01	----	----	<0.01
ø Weight Used for % Calculation	----	0.0001	kg	----	0.323	----	----	0.271
ø Fibrous Asbestos >7mm	----	0.0004	g	----	<0.0004	----	----	<0.0004
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg	21	17	5	15	13
Copper	7440-50-8	5	mg/kg	24	128	9	27	111
Lead	7439-92-1	5	mg/kg	12	1170	26	118	38
Nickel	7440-02-0	2	mg/kg	13	9	5	10	10
Zinc	7440-66-6	5	mg/kg	12	812	35	85	37

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
				Result	Result	Result	Result	Result
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	**0.8**	<0.1	**0.2**	**0.1**
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP074A: Monocyclic Aromatic Hydrocarbons									
Styrene	100-42-5	0.5	mg/kg		----	----	----	----	<0.5
Isopropylbenzene	98-82-8	0.5	mg/kg		----	----	----	----	<0.5
n-Propylbenzene	103-65-1	0.5	mg/kg		----	----	----	----	<0.5
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg		----	----	----	----	<0.5
sec-Butylbenzene	135-98-8	0.5	mg/kg		----	----	----	----	<0.5
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg		----	----	----	----	<0.5
tert-Butylbenzene	98-06-6	0.5	mg/kg		----	----	----	----	<0.5
p-Isopropyltoluene	99-87-6	0.5	mg/kg		----	----	----	----	<0.5
n-Butylbenzene	104-51-8	0.5	mg/kg		----	----	----	----	<0.5
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	5	mg/kg		----	----	----	----	<5
2-Butanone (MEK)	78-93-3	5	mg/kg		----	----	----	----	<5
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		----	----	----	----	<5
2-Hexanone (MBK)	591-78-6	5	mg/kg		----	----	----	----	<5
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		----	----	----	----	<0.5
EP074D: Fumigants									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP074D: Fumigants - Continued									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dichloropropane	78-87-5	0.5	mg/kg		----	----	----	----	<0.5
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		----	----	----	----	<0.5
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		----	----	----	----	<0.5
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		----	----	----	----	<5
Chloromethane	74-87-3	5	mg/kg		----	----	----	----	<5
Vinyl chloride	75-01-4	5	mg/kg		----	----	----	----	<5
Bromomethane	74-83-9	5	mg/kg		----	----	----	----	<5
Chloroethane	75-00-3	5	mg/kg		----	----	----	----	<5
Trichlorofluoromethane	75-69-4	5	mg/kg		----	----	----	----	<5
1.1-Dichloroethene	75-35-4	0.5	mg/kg		----	----	----	----	<0.5
Iodomethane	74-88-4	0.5	mg/kg		----	----	----	----	<0.5
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		----	----	----	----	<0.5
1.1-Dichloroethane	75-34-3	0.5	mg/kg		----	----	----	----	<0.5
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		----	----	----	----	<0.5
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		----	----	----	----	<0.5
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		----	----	----	----	<0.5
Carbon Tetrachloride	56-23-5	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dichloroethane	107-06-2	0.5	mg/kg		----	----	----	----	<0.5
Trichloroethene	79-01-6	0.5	mg/kg		----	----	----	----	<0.5
Dibromomethane	74-95-3	0.5	mg/kg		----	----	----	----	<0.5
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		----	----	----	----	<0.5
1.3-Dichloropropane	142-28-9	0.5	mg/kg		----	----	----	----	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg		----	----	----	----	<0.5
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		----	----	----	----	<0.5
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		----	----	----	----	<0.5
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		----	----	----	----	<0.5
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		----	----	----	----	<0.5
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		----	----	----	----	<0.5
Pentachloroethane	76-01-7	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		----	----	----	----	<0.5
EP074F: Halogenated Aromatic Compounds									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
Chlorobenzene	108-90-7	0.5	mg/kg		----	----	----	----	<0.5
Bromobenzene	108-86-1	0.5	mg/kg		----	----	----	----	<0.5
2-Chlorotoluene	95-49-8	0.5	mg/kg		----	----	----	----	<0.5
4-Chlorotoluene	106-43-4	0.5	mg/kg		----	----	----	----	<0.5
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		----	----	----	----	<0.5
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		----	----	----	----	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg		----	----	----	----	<0.5
Dibromochloromethane	124-48-1	0.5	mg/kg		----	----	----	----	<0.5
Bromoform	75-25-2	0.5	mg/kg		----	----	----	----	<0.5
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<2	<1	<2	<2	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**2.9**
Anthracene	120-12-7	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**1.2**
Fluoranthene	206-44-0	0.5	mg/kg		**1.3**	**0.7**	<0.8	<0.8	**4.5**
Pyrene	129-00-0	0.5	mg/kg		<0.8	**0.7**	<0.8	<0.8	**4.3**
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**1.9**
Chrysene	218-01-9	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**1.8**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**2.1**
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**0.8**
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**2.4**
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**1.0**
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.8	<0.5	<0.8	<0.8	**1.5**
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		**1.3**	**1.4**	<0.5	<0.5	**24.4**
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	**3.0**
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**1.0**	**0.6**	**1.0**	**1.0**	**3.3**
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.9**	**1.2**	**1.9**	**1.9**	**3.5**
EP075B: Polynuclear Aromatic Hydrocarbons									
2-Methylnaphthalene	91-57-6	0.5	mg/kg		----	----	----	----	<0.5
2-Chloronaphthalene	91-58-7	0.5	mg/kg		----	----	----	----	<0.5
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		----	----	----	----	<0.5
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		----	----	----	----	<0.5
3-Methylcholanthrene	56-49-5	0.5	mg/kg		----	----	----	----	<0.5
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		----	----	----	----	<0.5
Diethyl phthalate	84-66-2	0.5	mg/kg		----	----	----	----	<0.5
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		----	----	----	----	<0.5
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		----	----	----	----	<0.5
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		----	----	----	----	<5.0
Di-n-octylphthalate	117-84-0	0.5	mg/kg		----	----	----	----	<0.5
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		----	----	----	----	<1.0
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		----	----	----	----	<0.5
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		----	----	----	----	<1.0
Methapyrilene	91-80-5	0.5	mg/kg		----	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		----	----	----	----	<0.5
Acetophenone	98-86-2	0.5	mg/kg		----	----	----	----	<0.5
Nitrobenzene	98-95-3	0.5	mg/kg		----	----	----	----	<0.5
Isophorone	78-59-1	0.5	mg/kg		----	----	----	----	<0.5
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		----	----	----	----	<1.0
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		----	----	----	----	<1.0
1-Naphthylamine	134-32-7	0.5	mg/kg		----	----	----	----	<0.5
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		----	----	----	----	<0.5
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		----	----	----	----	<0.5
Azobenzene	103-33-3	1	mg/kg		----	----	----	----	<1
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		----	----	----	----	<0.5
Phenacetin	62-44-2	0.5	mg/kg		----	----	----	----	<0.5
4-Aminobiphenyl	92-67-1	0.5	mg/kg		----	----	----	----	<0.5
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		----	----	----	----	<0.5
Pronamide	23950-58-5	0.5	mg/kg		----	----	----	----	<0.5
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		----	----	----	----	<0.5
Chlorobenzilate	510-15-6	0.5	mg/kg		----	----	----	----	<0.5
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		----	----	----	----	<0.5
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		----	----	----	----	<0.5
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		----	----	----	----	<0.5
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		----	----	----	----	<0.5
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		----	----	----	----	<0.5
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		----	----	----	----	<0.5
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		----	----	----	----	<0.5
Hexachloroethane	67-72-1	0.5	mg/kg		----	----	----	----	<0.5
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		----	----	----	----	<0.5
Hexachloropropylene	1888-71-7	0.5	mg/kg		----	----	----	----	<0.5
Hexachlorobutadiene	87-68-3	0.5	mg/kg		----	----	----	----	<0.5
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		----	----	----	----	<2.5
Pentachlorobenzene	608-93-5	0.5	mg/kg		----	----	----	----	<0.5
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		----	----	----	----	<1.0
EP075H: Anilines and Benzidines									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP075H: Anilines and Benzidines - Continued									
Aniline	62-53-3	0.5	mg/kg		----	----	----	----	<0.5
4-Chloroaniline	106-47-8	0.5	mg/kg		----	----	----	----	<0.5
2-Nitroaniline	88-74-4	1.0	mg/kg		----	----	----	----	<1.0
3-Nitroaniline	99-09-2	1.0	mg/kg		----	----	----	----	<1.0
Dibenzofuran	132-64-9	0.5	mg/kg		----	----	----	----	<0.5
4-Nitroaniline	100-01-6	0.5	mg/kg		----	----	----	----	<0.5
Carbazole	86-74-8	0.5	mg/kg		----	----	----	----	<0.5
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		----	----	----	----	<0.5
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		----	----	----	----	<0.5
beta-BHC	319-85-7	0.5	mg/kg		----	----	----	----	<0.5
gamma-BHC	58-89-9	0.5	mg/kg		----	----	----	----	<0.5
delta-BHC	319-86-8	0.5	mg/kg		----	----	----	----	<0.5
Heptachlor	76-44-8	0.5	mg/kg		----	----	----	----	<0.5
Aldrin	309-00-2	0.5	mg/kg		----	----	----	----	<0.5
Heptachlor epoxide	1024-57-3	0.5	mg/kg		----	----	----	----	<0.5
alpha-Endosulfan	959-98-8	0.5	mg/kg		----	----	----	----	<0.5
4.4`-DDE	72-55-9	0.5	mg/kg		----	----	----	----	<0.5
Dieldrin	60-57-1	0.5	mg/kg		----	----	----	----	<0.5
Endrin	72-20-8	0.5	mg/kg		----	----	----	----	<0.5
beta-Endosulfan	33213-65-9	0.5	mg/kg		----	----	----	----	<0.5
4.4`-DDD	72-54-8	0.5	mg/kg		----	----	----	----	<0.5
Endosulfan sulfate	1031-07-8	0.5	mg/kg		----	----	----	----	<0.5
4.4`-DDT	50-29-3	1.0	mg/kg		----	----	----	----	<1.0
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	0.5	mg/kg		----	----	----	----	<0.5
Dimethoate	60-51-5	0.5	mg/kg		----	----	----	----	<0.5
Diazinon	333-41-5	0.5	mg/kg		----	----	----	----	<0.5
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		----	----	----	----	<0.5
Malathion	121-75-5	0.5	mg/kg		----	----	----	----	<0.5
Fenthion	55-38-9	0.5	mg/kg		----	----	----	----	<0.5
Chlorpyrifos	2921-88-2	0.5	mg/kg		----	----	----	----	<0.5
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		----	----	----	----	<0.5
Chlorfenvinphos	470-90-6	0.5	mg/kg		----	----	----	----	<0.5

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
				Result	Result	Result	Result	Result
EP075J: Organophosphorus Pesticides - Continued								
Prothiofos	34643-46-4	0.5	mg/kg	----	----	----	----	<0.5
Ethion	563-12-2	0.5	mg/kg	----	----	----	----	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	**100**	**140**	**390**	**290**	**580**
C29 - C36 Fraction	----	100	mg/kg	**160**	**100**	**630**	**480**	**1140**
^ C10 - C36 Fraction (sum)	----	50	mg/kg	**260**	**240**	**1020**	**770**	**1720**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	<10	**103**	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	<10	**103**	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	**200**	**180**	**800**	**590**	**1280**
>C34 - C40 Fraction	----	100	mg/kg	<100	<100	**450**	**350**	**1090**
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	**200**	**180**	**1250**	**940**	**2370**
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	<50	<50	<50	<50	<50
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg	<1	<1	<1	<1	<1
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	**105**	**108**	**76.6**	**95.8**	**96.0**
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**99.5**	**114**	**91.7**	**85.5**	**107**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**106**	**97.8**	**95.6**	**102**	**111**
EP074S: VOC Surrogates								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH19_2.5_191129	MW20_0.5_191129	MW20_1.8_191129	MW20_4.0_191129	MW21_0.3_191129
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-084	ES1939690-086	ES1939690-088	ES1939690-090	ES1939690-091
					Result	Result	Result	Result	Result
EP074S: VOC Surrogates - Continued									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		----	----	----	----	96.0
Toluene-D8	2037-26-5	0.5	%		----	----	----	----	96.9
4-Bromofluorobenzene	460-00-4	0.5	%		----	----	----	----	102
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		104	80.5	80.1	81.4	80.2
2-Chlorophenol-D4	93951-73-6	0.5	%		97.6	90.8	91.8	91.6	89.6
2.4.6-Tribromophenol	118-79-6	0.5	%		107	75.3	74.0	80.3	83.4
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		111	111	114	114	107
Anthracene-d10	1719-06-8	0.5	%		108	102	104	104	96.7
4-Terphenyl-d14	1718-51-0	0.5	%		104	97.0	104	106	91.7
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		----	----	----	----	82.0
Phenol-d6	13127-88-3	0.5	%		----	----	----	----	109
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	----	115
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	----	90.8
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		----	----	----	----	107
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		----	----	----	----	108
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	----	114
Anthracene-d10	1719-06-8	0.5	%		----	----	----	----	108
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	----	88.5
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		85.2	97.9	74.0	70.0	81.2
Toluene-D8	2037-26-5	0.2	%		91.6	103	72.8	72.2	90.2
4-Bromofluorobenzene	460-00-4	0.2	%		90.7	106	73.1	80.4	107

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	MW21_1.3_191129	MW21_4.4_191129	BH09_0.1_191127	BH15_1.5_191128	TS_191127
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-092	ES1939690-094	ES1939690-095	ES1939690-096	ES1939690-097
				Result	Result	Result	Result	Result
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	4.0	----	5.0	----
pH OX (23B)	----	0.1	pH Unit	----	1.5	----	1.8	----
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	319	----	80	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	5500	----	5720	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	5180	----	5640	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	0.511	----	0.128	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	8.81	----	9.18	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	8.30	----	9.05	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	0.073	----	0.038	----
Peroxide Sulfur (23De)	----	0.020	% S	----	3.45	----	2.02	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	3.38	----	1.98	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	2110	----	1230	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	0.115	----	0.821	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	0.164	----	0.681	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	0.048	----	<0.020	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	24	----	<10	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	0.038	----	<0.020	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	0.198	----	0.068	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	0.243	----	0.053	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	0.045	----	<0.020	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	37	----	<10	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	0.059	----	<0.020	----
EA029-G: Retained Acidity								
HCl Extractable Sulfur (20Be)	----	0.020	% S	----	0.039	----	----	----
Net Acid Soluble Sulfur (20Je)	----	0.020	% S	----	<0.020	----	----	----
acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	----	<10	----	----	----
sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.020	% pyrite S	----	<0.020	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	MW21_1.3_191129	MW21_4.4_191129	BH09_0.1_191127	BH15_1.5_191128	TS_191127
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-092	ES1939690-094	ES1939690-095	ES1939690-096	ES1939690-097
				Result	Result	Result	Result	Result
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	1.5	----	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	----	3.87	----	2.11	----
Net Acidity (acidity units)	----	10	mole H+ / t	----	2410	----	1320	----
Liming Rate	----	1	kg CaCO3/t	----	181	----	99	----
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	3.87	----	2.11	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	2410	----	1320	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	181	----	99	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	80.1	76.3	27.9	84.0	----
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	No	----	No	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	No	----	No	----	----
Asbestos Type	1332-21-4	-	--	-	----	-	----	----
Synthetic Mineral Fibre	----	0.1	g/kg	No	----	No	----	----
Organic Fibre	----	0.1	g/kg	No	----	No	----	----
Sample weight (dry)	----	0.01	g	33.9	----	268	----	----
APPROVED IDENTIFIER:	----	-	--	A. SMYLIE	----	A. SMYLIE	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	6	<5	<5	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	<1	<1	----
Chromium	7440-47-3	2	mg/kg	4	16	6	11	----
Copper	7440-50-8	5	mg/kg	<5	16	17	8	----
Lead	7439-92-1	5	mg/kg	<5	6	139	21	----
Nickel	7440-02-0	2	mg/kg	3	40	3	5	----
Zinc	7440-66-6	5	mg/kg	60	26	229	110	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.2	0.1	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.12	<0.06	<0.05	<0.12	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.12	<0.06	<0.05	<0.12	----
beta-BHC	319-85-7	0.05	mg/kg	<0.12	<0.06	<0.05	<0.12	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.12	<0.06	<0.05	<0.12	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW21_1.3_191129	MW21_4.4_191129	BH09_0.1_191127	BH15_1.5_191128	TS_191127
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-092	ES1939690-094	ES1939690-095	ES1939690-096	ES1939690-097
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
delta-BHC	319-86-8	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Heptachlor	76-44-8	0.05	mg/kg		<0.12	<0.06	**0.16**	<0.12	----
Aldrin	309-00-2	0.05	mg/kg		<0.12	<0.06	**0.18**	<0.12	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.12	<0.06	**0.20**	<0.12	----
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	**0.58**	<0.05	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.12	<0.06	**0.52**	<0.12	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.12	<0.06	**0.06**	<0.12	----
Dieldrin	60-57-1	0.05	mg/kg		<0.12	<0.06	**1.59**	<0.12	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Endrin	72-20-8	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.07	<0.05	<0.05	<0.07	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
4.4`-DDT	50-29-3	0.2	mg/kg		<0.5	<0.3	<0.2	<0.5	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.5	<0.3	<0.2	<0.5	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	**1.77**	<0.05	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.5	<0.3	<0.2	<0.5	----
Dimethoate	60-51-5	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Diazinon	333-41-5	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.5	<0.3	<0.2	<0.5	----
Malathion	121-75-5	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Fenthion	55-38-9	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Parathion	56-38-2	0.2	mg/kg		<0.5	<0.3	<0.2	<0.5	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW21_1.3_191129	MW21_4.4_191129	BH09_0.1_191127	BH15_1.5_191128	TS_191127
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-092	ES1939690-094	ES1939690-095	ES1939690-096	ES1939690-097
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Ethion	563-12-2	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.12	<0.06	<0.05	<0.12	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2-Methylphenol	95-48-7	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		<4	<2	<1	<4	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Pentachlorophenol	87-86-5	2	mg/kg		<4	<2	<2	<4	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Acenaphthylene	208-96-8	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Acenaphthene	83-32-9	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Fluorene	86-73-7	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Phenanthrene	85-01-8	0.5	mg/kg		<2.0	<1.0	**0.8**	<2.0	----
Anthracene	120-12-7	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Fluoranthene	206-44-0	0.5	mg/kg		<2.0	<1.0	**1.7**	<2.0	----
Pyrene	129-00-0	0.5	mg/kg		<2.0	<1.0	**1.9**	<2.0	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<2.0	<1.0	**0.8**	<2.0	----
Chrysene	218-01-9	0.5	mg/kg		<2.0	<1.0	**0.7**	<2.0	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<2.0	<1.0	**0.5**	<2.0	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<2.0	<1.0	**0.8**	<2.0	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW21_1.3_191129	MW21_4.4_191129	BH09_0.1_191127	BH15_1.5_191128	TS_191127
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-092	ES1939690-094	ES1939690-095	ES1939690-096	ES1939690-097
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<2.0	<1.0	<0.5	<2.0	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		<1.0	<0.5	**7.2**	<1.0	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	**0.9**	<0.5	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**2.4**	**1.2**	**1.2**	**2.4**	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**4.8**	**2.4**	**1.5**	**4.8**	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	<10	**36**
C10 - C14 Fraction	----	50	mg/kg		<110	<60	<50	<110	----
C15 - C28 Fraction	----	100	mg/kg		**3550**	**350**	<100	**3600**	----
C29 - C36 Fraction	----	100	mg/kg		**3180**	**770**	**110**	**3220**	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		**6730**	**1120**	**110**	**6820**	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	<10	**47**
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	<10	**18**
>C10 - C16 Fraction	----	50	mg/kg		<110	<60	<50	<110	----
>C16 - C34 Fraction	----	100	mg/kg		**6040**	**810**	**150**	**6080**	----
>C34 - C40 Fraction	----	100	mg/kg		**1090**	**640**	**100**	**820**	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		**7130**	**1450**	**250**	**6900**	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		<110	<60	<50	<110	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.5	<0.2	<0.2	<0.5	<0.2
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	**11.4**
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	**2.0**
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	**11.2**
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	**4.6**
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	**29.2**
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	**15.8**
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**41.4**	**81.7**	**81.2**	**73.8**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW21_1.3_191129	MW21_4.4_191129	BH09_0.1_191127	BH15_1.5_191128	TS_191127
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-092	ES1939690-094	ES1939690-095	ES1939690-096	ES1939690-097
					Result	Result	Result	Result	Result
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		121	111	85.9	94.3	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		72.4	91.0	80.2	96.6	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		75.7	78.3	76.9	76.7	----
2-Chlorophenol-D4	93951-73-6	0.5	%		86.2	89.9	87.8	86.7	----
2.4.6-Tribromophenol	118-79-6	0.5	%		80.2	77.0	59.7	63.3	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		107	111	108	108	----
Anthracene-d10	1719-06-8	0.5	%		97.1	100	99.2	98.4	----
4-Terphenyl-d14	1718-51-0	0.5	%		97.6	107	101	104	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		72.0	90.9	84.2	68.2	96.3
Toluene-D8	2037-26-5	0.2	%		67.7	88.3	90.2	68.3	103
4-Bromofluorobenzene	460-00-4	0.2	%		69.4	90.8	98.1	68.6	103

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	Trip Spike Control	QC100_191127	QC101_191127	QC102_191129	QC103_191129
			Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1939690-098	ES1939690-099	ES1939690-100	ES1939690-101	ES1939690-102
				Result	Result	Result	Result	Result
EA055: Moisture Content								
Moisture Content	----	1.0	%	----	85.0	6.9	7.1	81.8
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	----	<5	<5	<5	<5
Cadmium	7440-43-9	1	mg/kg	----	<1	<1	3	<1
Chromium	7440-47-3	2	mg/kg	----	4	6	9	6
Copper	7440-50-8	5	mg/kg	----	<5	15	121	6
Lead	7439-92-1	5	mg/kg	----	<5	145	438	10
Nickel	7440-02-0	2	mg/kg	----	<2	2	12	4
Zinc	7440-66-6	5	mg/kg	----	13	200	310	43
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	<0.1	0.2	0.3	0.2
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	39	<10	<10	<10	<10
C10 - C14 Fraction	----	50	mg/kg	----	<110	<50	<50	<110
C15 - C28 Fraction	----	100	mg/kg	----	3050	<100	180	5450
C29 - C36 Fraction	----	100	mg/kg	----	1500	<100	180	4350
^ C10 - C36 Fraction (sum)	----	50	mg/kg	----	4550	<50	360	9800
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	10	mg/kg	51	<10	<10	<10	<10
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg	19	<10	<10	<10	<10
>C10 - C16 Fraction	----	50	mg/kg	----	<110	<50	<50	<110
>C16 - C34 Fraction	----	100	mg/kg	----	4110	120	280	9020
>C34 - C40 Fraction	----	100	mg/kg	----	670	<100	130	1060
^ >C10 - C40 Fraction (sum)	----	50	mg/kg	----	4780	120	410	10100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg	----	<110	<50	<50	<110
EP080: BTEXN								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.5	<0.2	<0.2	<0.5
Toluene	108-88-3	0.5	mg/kg	12.3	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	2.2	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	12.2	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	5.0	<0.5	<0.5	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg	31.7	<0.2	<0.2	<0.2	<0.2

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	Trip Spike Control	QC100_191127	QC101_191127	QC102_191129	QC103_191129
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1939690-098	ES1939690-099	ES1939690-100	ES1939690-101	ES1939690-102
					Result	Result	Result	Result	Result
EP080: BTEXN - Continued									
^ **Total Xylenes**	----	0.5	mg/kg		**17.2**	<0.5	<0.5	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	<1	<1
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**105**	**65.0**	**105**	**107**	**70.0**
Toluene-D8	2037-26-5	0.2	%		**105**	**66.4**	**113**	**115**	**70.0**
4-Bromofluorobenzene	460-00-4	0.2	%		**110**	**70.3**	**108**	**118**	**67.2**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TB_191128	TB_191129	BH13_0.3_191128	BH02_0.9	----
			Client sampling date / time	26-Nov-2019 00:00	26-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----
Compound	CAS Number	LOR	Unit	ES1939690-106	ES1939690-107	ES1939690-108	ES1939690-109	--------
				Result	Result	Result	Result	----
EA029-A: pH Measurements								
pH KCl (23A)	----	0.1	pH Unit	----	----	----	5.3	----
pH OX (23B)	----	0.1	pH Unit	----	----	----	3.1	----
EA029-B: Acidity Trail								
Titratable Actual Acidity (23F)	----	2	mole H+ / t	----	----	----	18	----
Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	----	----	----	98	----
Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	----	----	----	80	----
sulfidic - Titratable Actual Acidity (s-23F)	----	0.020	% pyrite S	----	----	----	0.028	----
sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.020	% pyrite S	----	----	----	0.156	----
sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.020	% pyrite S	----	----	----	0.128	----
EA029-C: Sulfur Trail								
KCl Extractable Sulfur (23Ce)	----	0.020	% S	----	----	----	0.030	----
Peroxide Sulfur (23De)	----	0.020	% S	----	----	----	0.100	----
Peroxide Oxidisable Sulfur (23E)	----	0.020	% S	----	----	----	0.070	----
acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	----	----	----	43	----
EA029-D: Calcium Values								
KCl Extractable Calcium (23Vh)	----	0.020	% Ca	----	----	----	0.155	----
Peroxide Calcium (23Wh)	----	0.020	% Ca	----	----	----	0.192	----
Acid Reacted Calcium (23X)	----	0.020	% Ca	----	----	----	0.037	----
acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	----	----	----	19	----
sulfidic - Acid Reacted Calcium (s-23X)	----	0.020	% S	----	----	----	0.030	----
EA029-E: Magnesium Values								
KCl Extractable Magnesium (23Sm)	----	0.020	% Mg	----	----	----	<0.020	----
Peroxide Magnesium (23Tm)	----	0.020	% Mg	----	----	----	0.022	----
Acid Reacted Magnesium (23U)	----	0.020	% Mg	----	----	----	0.022	----
Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	----	----	----	18	----
sulfidic - Acid Reacted Magnesium (s-23U)	----	0.020	% S	----	----	----	0.030	----
EA029-H: Acid Base Accounting								
ANC Fineness Factor	----	0.5	-	----	----	----	1.5	----
Net Acidity (sulfur units)	----	0.02	% S	----	----	----	0.10	----
Net Acidity (acidity units)	----	10	mole H+ / t	----	----	----	61	----
Liming Rate	----	1	kg CaCO3/t	----	----	----	4	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	TB_191128	TB_191129	BH13_0.3_191128	BH02_0.9	----
			Client sampling date / time	26-Nov-2019 00:00	26-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----
Compound	CAS Number	LOR	Unit	ES1939690-106	ES1939690-107	ES1939690-108	ES1939690-109	--------
				Result	Result	Result	Result	----
EA029-H: Acid Base Accounting - Continued								
Net Acidity excluding ANC (sulfur units)	----	0.02	% S	----	----	----	**0.10**	----
Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	----	----	----	**61**	----
Liming Rate excluding ANC	----	1	kg CaCO3/t	----	----	----	**4**	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	----	----	**2.8**	----	----
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	**No**	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	----	**No**	----	----
Asbestos Type	1332-21-4	-	--	----	----	**-**	----	----
Synthetic Mineral Fibre	----	0.1	g/kg	----	----	**No**	----	----
Organic Fibre	----	0.1	g/kg	----	----	**No**	----	----
Sample weight (dry)	----	0.01	g	----	----	**34.5**	----	----
APPROVED IDENTIFIER:	----	-	--	----	----	**A. SMYLIE**	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	----	----	<5	----	----
Cadmium	7440-43-9	1	mg/kg	----	----	<1	----	----
Chromium	7440-47-3	2	mg/kg	----	----	**6**	----	----
Copper	7440-50-8	5	mg/kg	----	----	**94**	----	----
Lead	7439-92-1	5	mg/kg	----	----	**37**	----	----
Nickel	7440-02-0	2	mg/kg	----	----	**9**	----	----
Zinc	7440-66-6	5	mg/kg	----	----	**59**	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	----	----	<0.1	----	----
EP066: Polychlorinated Biphenyls (PCB)								
Total Polychlorinated biphenyls	----	0.1	mg/kg	----	----	<0.2	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	----	----	<0.25	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	----	----	<0.25	----	----
beta-BHC	319-85-7	0.05	mg/kg	----	----	<0.25	----	----
gamma-BHC	58-89-9	0.05	mg/kg	----	----	<0.25	----	----
delta-BHC	319-86-8	0.05	mg/kg	----	----	<0.25	----	----
Heptachlor	76-44-8	0.05	mg/kg	----	----	<0.25	----	----
Aldrin	309-00-2	0.05	mg/kg	----	----	<0.25	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	----	----	<0.25	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TB_191128	TB_191129	BH13_0.3_191128	BH02_0.9	----
				Client sampling date / time	26-Nov-2019 00:00	26-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1939690-106	ES1939690-107	ES1939690-108	ES1939690-109	--------
					Result	Result	Result	Result	----
EP068A: Organochlorine Pesticides (OC) - Continued									
^ Total Chlordane (sum)	----	0.05	mg/kg		----	----	<0.08	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		----	----	<0.25	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		----	----	<0.25	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		----	----	<0.25	----	----
Dieldrin	60-57-1	0.05	mg/kg		----	----	<0.25	----	----
4.4`-DDE	72-55-9	0.05	mg/kg		----	----	<0.25	----	----
Endrin	72-20-8	0.05	mg/kg		----	----	<0.25	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		----	----	<0.25	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		----	----	<0.15	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		----	----	<0.25	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		----	----	<0.25	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		----	----	<0.25	----	----
4.4`-DDT	50-29-3	0.2	mg/kg		----	----	<1.0	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		----	----	<0.25	----	----
Methoxychlor	72-43-5	0.2	mg/kg		----	----	<1.0	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		----	----	<0.08	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		----	----	<0.08	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		----	----	<0.25	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		----	----	<0.25	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		----	----	<1.0	----	----
Dimethoate	60-51-5	0.05	mg/kg		----	----	<0.25	----	----
Diazinon	333-41-5	0.05	mg/kg		----	----	<0.25	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		----	----	<0.25	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		----	----	<1.0	----	----
Malathion	121-75-5	0.05	mg/kg		----	----	<0.25	----	----
Fenthion	55-38-9	0.05	mg/kg		----	----	<0.25	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		----	----	<0.25	----	----
Parathion	56-38-2	0.2	mg/kg		----	----	<1.0	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		----	----	<0.25	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		----	----	<0.25	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		----	----	<0.25	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		----	----	<0.25	----	----
Prothiofos	34643-46-4	0.05	mg/kg		----	----	<0.25	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TB_191128	TB_191129	BH13_0.3_191128	BH02_0.9	----
				Client sampling date / time	26-Nov-2019 00:00	26-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1939690-106	ES1939690-107	ES1939690-108	ES1939690-109	--------
					Result	Result	Result	Result	----
EP068B: Organophosphorus Pesticides (OP) - Continued									
Ethion	563-12-2	0.05	mg/kg		----	----	<0.25	----	----
Carbophenothion	786-19-6	0.05	mg/kg		----	----	<0.25	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		----	----	<0.25	----	----
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	<0.5	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	<0.5	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	<0.5	----	----
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	<1	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	<0.5	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	<0.5	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	<0.5	----	----
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	<0.5	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	<0.5	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	<0.5	----	----
Pentachlorophenol	87-86-5	2	mg/kg		----	----	<2	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	<0.5	----	----
Acenaphthene	83-32-9	0.5	mg/kg		----	----	<0.5	----	----
Fluorene	86-73-7	0.5	mg/kg		----	----	<0.5	----	----
Phenanthrene	85-01-8	0.5	mg/kg		----	----	**0.9**	----	----
Anthracene	120-12-7	0.5	mg/kg		----	----	<0.5	----	----
Fluoranthene	206-44-0	0.5	mg/kg		----	----	**2.2**	----	----
Pyrene	129-00-0	0.5	mg/kg		----	----	**2.4**	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	**1.1**	----	----
Chrysene	218-01-9	0.5	mg/kg		----	----	**0.9**	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	**1.4**	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	**0.6**	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	**1.2**	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	**0.6**	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	<0.5	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	**1.0**	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg		----	----	**12.3**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TB_191128	TB_191129	BH13_0.3_191128	BH02_0.9	----
				Client sampling date / time	26-Nov-2019 00:00	26-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1939690-106	ES1939690-107	ES1939690-108	ES1939690-109	--------
					Result	Result	Result	Result	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		----	----	**1.6**	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		----	----	**1.8**	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		----	----	**2.1**	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	<10	----	----
C10 - C14 Fraction	----	50	mg/kg		----	----	<50	----	----
C15 - C28 Fraction	----	100	mg/kg		----	----	**400**	----	----
C29 - C36 Fraction	----	100	mg/kg		----	----	**1050**	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	**1450**	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	<10	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	10	mg/kg		<10	<10	<10	----	----
>C10 - C16 Fraction	----	50	mg/kg		----	----	<50	----	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	**950**	----	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	**1560**	----	----
^ >C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	**2510**	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	<50	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
^ Sum of BTEX	----	0.2	mg/kg		<0.2	<0.2	<0.2	----	----
^ Total Xylenes	----	0.5	mg/kg		<0.5	<0.5	<0.5	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	<1	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	**96.7**	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		----	----	**108**	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		----	----	**71.0**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	TB_191128	TB_191129	BH13_0.3_191128	BH02_0.9	----
				Client sampling date / time	26-Nov-2019 00:00	26-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----
Compound	CAS Number	LOR	Unit		ES1939690-106	ES1939690-107	ES1939690-108	ES1939690-109	--------
					Result	Result	Result	Result	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	93.0	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	100	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	86.2	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	93.3	----	----
Anthracene-d10	1719-06-8	0.5	%		----	----	98.7	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	105	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		101	109	121	----	----
Toluene-D8	2037-26-5	0.2	%		109	114	124	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		107	113	123	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Client sample ID	QC300_191127	QC301_191128	QC302_191129	----	----
			Client sampling date / time	27-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----	----
Compound	CAS Number	LOR	Unit	ES1939690-103	ES1939690-104	ES1939690-105	--------	--------
				Result	Result	Result	----	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	----	----
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	----	----
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	----	----
C15 - C28 Fraction	----	100	µg/L	<100	<100	<100	----	----
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L	<50	<50	<50	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L	<20	<20	<20	----	----
>C10 - C16 Fraction	----	100	µg/L	<100	<100	<100	----	----
>C16 - C34 Fraction	----	100	µg/L	<100	<100	<100	----	----
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L	<100	<100	<100	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L	<100	<100	<100	----	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	----	----
Toluene	108-88-3	2	µg/L	<2	<2	<2	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	----	----
^ **Total Xylenes**	----	2	µg/L	<2	<2	<2	----	----
^ **Sum of BTEX**	----	1	µg/L	<1	<1	<1	----	----
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	QC300_191127	QC301_191128	QC302_191129	----	----
				Client sampling date / time	27-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	----	----
Compound	CAS Number	LOR	Unit		ES1939690-103	ES1939690-104	ES1939690-105	--------	--------
					Result	Result	Result	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**108**	**108**	**110**	**----**	**----**
Toluene-D8	2037-26-5	2	%		**110**	**106**	**104**	**----**	**----**
4-Bromofluorobenzene	460-00-4	2	%		**88.3**	**87.8**	**92.8**	**----**	**----**

Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	BH01_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH01_1.0_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH02_0.5_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH03_0.5_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH04_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH04_0.5_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH05_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH06_0.5_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH08_0.5_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH09_0.5_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH10_ 0.1_181128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH14_1.0_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH15_0.2_181128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH16_0.1_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH17_0.5_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH18_0.5_191129 - 29-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH19_0.5_191129 - 29-Nov-2019 00:00	Mid brown soil containing one fragment of asbestos cement debris approximately 10x5x2mm.
EA200: Description	MW20_1.8_191129 - 29-Nov-2019 00:00	Mid brown soil.
EA200: Description	MW21_1.3_191129 - 29-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH09_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH13_0.3_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH02_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH05_0.9_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH06_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH07_0.1_191127 - 27-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH08_1.1_191127 - 27-Nov-2019 00:00	Mid grey soil.
EA200: Description	BH10_1.0_181128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	MW11_0.5_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH12_0.1_181128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH13_0.5_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH14_0.3_ 191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH16_0.9_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH17_0.1_191128 - 28-Nov-2019 00:00	Mid brown soil.
EA200: Description	BH18_0.1_191129 - 29-Nov-2019 00:00	Mid brown soil.
EA200: Description	MW20_0.5_191129 - 29-Nov-2019 00:00	Mid brown soil containing two pieces of asbestos fibre board approximately 10x6x3mm.
EA200: Description	MW21_0.3_191129 - 29-Nov-2019 00:00	Mid brown soil.

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060-07-0	64	130
Toluene-D8	2037-26-5	66	136
4-Bromofluorobenzene	460-00-4	60	122
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	29	149
Phenol-d6	13127-88-3	32	128
2-Chlorophenol-D4	93951-73-6	32	128
2.4.6-Tribromophenol	118-79-6	13	121
EP075T: Base/Neutral Extractable Surrogates			
Nitrobenzene-D5	4165-60-0	33	125
1.2-Dichlorobenzene-D4	2199-69-1	34	108
2-Fluorobiphenyl	321-60-8	35	121
Anthracene-d10	1719-06-8	35	123
4-Terphenyl-d14	1718-51-0	33	125
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	73	133
Toluene-D8	2037-26-5	74	132
4-Bromofluorobenzene	460-00-4	72	130

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP080S: TPH(V)/BTEX Surrogates - Continued			
4-Bromofluorobenzene	460-00-4	70	128

QUALITY CONTROL REPORT

Work Order	: **ES1939690**	Page	: 1 of 66
Amendment	: **2**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Contact	: Customer Services ES
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 27-Nov-2019
Order number	: J190730	Date Analysis Commenced	: 04-Dec-2019
C-O-C number	: ----	Issue Date	: 07-Feb-2020
Sampler	: Lachlan Lewis		
Site	: ----		
Quote number	: SY/609/19		
No. of samples received	: 109		
No. of samples analysed	: 77		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alana Smylie	Asbestos Identifier	Newcastle - Asbestos, Mayfield West, NSW
Ben Felgendrejeris	Senior Acid Sulfate Soil Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Kim McCabe	Senior Inorganic Chemist	Brisbane Acid Sulphate Soils, Stafford, QLD

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2746340)									
ES1939690-001	BH01_0.1_191127	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	5	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	2	2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	10	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	104	103	1.31	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	121	140	15.2	0% - 20%
ES1939690-015	BH04_0.5_191127	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	4	4	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	15	16	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	245	282	14.0	0% - 20%
		EG005T: Zinc	7440-66-6	5	mg/kg	157	170	7.67	0% - 20%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2746342)									
ES1939690-030	BH07_1.1_191127	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	# 60	114	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	16	16	0.00	No Limit
ES1939690-050	MW11_3.5_1811 28	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	5	5	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	2	3	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2746342) - continued									
ES1939690-050	MW11_3.5_1811 28	EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	11	15	32.1	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	53	51	4.64	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	69	67	2.50	0% - 50%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2746419)									
ES1939690-062	BH14_3.0_191128	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	22	29	25.4	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	10	10	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	21	26	19.1	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	11	15	29.2	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	20	16	21.3	No Limit
ES1939690-077	BH18_0.5_191129	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	3	3	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.00	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.00	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	25	23	8.60	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	87	92	5.75	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	53	76	36.6	0% - 50%
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 2746421)									
ES1939690-094	MW21_4.4_191129	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.00	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	16	15	0.00	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	40	44	7.52	0% - 20%
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	<5	19.1	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	16	14	11.8	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	6	6	0.00	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	26	42	48.1	No Limit
EA029-A: pH Measurements (QC Lot: 2749329)									
EB1932191-001	Anonymous	EA029: pH KCl (23A)	----	0.1	pH Unit	5.1	5.1	0.00	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	5.1	5.0	1.98	0% - 20%
ES1939690-009	BH02_2.5_191127	EA029: pH KCl (23A)	----	0.1	pH Unit	4.5	4.5	0.00	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	1.8	1.8	0.00	0% - 50%
EA029-A: pH Measurements (QC Lot: 2749330)									
ES1939690-050	MW11_3.5_1811 28	EA029: pH KCl (23A)	----	0.1	pH Unit	5.1	5.2	1.94	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	2.6	2.6	0.00	0% - 20%
ES1939690-083	BH19_1.5_191129	EA029: pH KCl (23A)	----	0.1	pH Unit	4.9	4.9	0.00	0% - 20%
		EA029: pH OX (23B)	----	0.1	pH Unit	1.7	1.7	0.00	0% - 50%
EA029-A: pH Measurements (QC Lot: 2754168)									
ES1939690-020	BH05_0.9_191127	EA029: pH KCl (23A)	----	0.1	pH Unit	6.8	6.8	0.00	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA029-A: pH Measurements (QC Lot: 2754168) - continued									
ES1939690-020	BH05_0.9_191127	EA029: pH OX (23B)	----	0.1	pH Unit	3.8	3.8	0.00	0% - 20%
EA029-B: Acidity Trail (QC Lot: 2749329)									
EB1932191-001	Anonymous	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	0.030	0.029	4.56	No Limit
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	<0.020	<0.020	0.00	No Limit
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	7	7	0.00	No Limit
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	19	18	0.00	No Limit
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	12	11	9.04	No Limit
ES1939690-009	BH02_2.5_191127	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	0.319	0.306	4.29	0% - 50%
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	8.63	8.64	0.139	0% - 20%
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	8.31	8.34	0.306	0% - 20%
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	199	191	4.29	0% - 20%
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	5380	5390	0.139	0% - 20%
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	5180	5200	0.306	0% - 20%
EA029-B: Acidity Trail (QC Lot: 2749330)									
ES1939690-050	MW11_3.5_1811 28	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	0.317	0.321	1.26	0% - 50%
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	0.301	0.306	1.48	0% - 50%
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	10	9	0.00	No Limit
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	198	200	1.26	0% - 20%
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	188	191	1.48	0% - 20%
ES1939690-083	BH19_1.5_191129	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	0.220	0.218	0.923	0% - 50%
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	11.4	11.5	0.489	0% - 20%
		EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	11.2	11.3	0.517	0% - 20%
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	137	136	0.923	0% - 20%
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	7140	7170	0.489	0% - 20%
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	7000	7030	0.517	0% - 20%
EA029-B: Acidity Trail (QC Lot: 2754168)									
ES1939690-020	BH05_0.9_191127	EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	<0.020	<0.020	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA029-B: Acidity Trail (QC Lot: 2754168) - continued									
ES1939690-020	BH05_0.9_191127	EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	<0.020	<0.020	0.00	No Limit
		EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	<2	0.00	No Limit
		EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	<2	0.00	No Limit
		EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	<2	0.00	No Limit
EA029-C: Sulfur Trail (QC Lot: 2749329)									
EB1932191-001	Anonymous	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	<10	0.00	No Limit
ES1939690-009	BH02_2.5_191127	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	0.036	0.041	11.5	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	1.56	1.63	4.42	0% - 20%
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	1.52	1.59	4.25	0% - 20%
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	951	992	4.25	0% - 20%
EA029-C: Sulfur Trail (QC Lot: 2749330)									
ES1939690-050	MW11_3.5_1811 28	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	0.094	0.103	9.31	No Limit
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	0.094	0.103	9.31	No Limit
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	58	64	9.31	No Limit
ES1939690-083	BH19_1.5_191129	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	0.058	0.059	2.24	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	2.41	2.28	5.67	0% - 20%
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	2.36	2.22	5.88	0% - 20%
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	1470	1380	5.88	0% - 20%
EA029-C: Sulfur Trail (QC Lot: 2754168)									
ES1939690-020	BH05_0.9_191127	EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Sulfur (23De)	----	0.02	% S	0.045	0.047	5.50	No Limit
		EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	0.045	0.047	5.50	No Limit
		EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	28	29	5.50	No Limit
EA029-D: Calcium Values (QC Lot: 2749329)									
EB1932191-001	Anonymous	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	<0.020	0.00	No Limit
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	<10	0.00	No Limit
ES1939690-009	BH02_2.5_191127	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.525	0.584	10.7	0% - 20%

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA029-D: Calcium Values (QC Lot: 2749329) - continued									
ES1939690-009	BH02_2.5_191127	EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.310	0.329	5.77	0% - 50%
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	<10	0.00	No Limit
EA029-D: Calcium Values (QC Lot: 2749330)									
ES1939690-050	MW11_3.5_1811 28	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.068	0.066	3.22	No Limit
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.068	0.076	10.2	No Limit
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	<10	0.00	No Limit
ES1939690-083	BH19_1.5_191129	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	1.06	1.08	2.05	0% - 20%
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	1.43	1.48	3.46	0% - 20%
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	0.367	0.395	7.40	0% - 50%
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	0.294	0.316	7.40	0% - 50%
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	183	197	7.40	0% - 50%
EA029-D: Calcium Values (QC Lot: 2754168)									
ES1939690-020	BH05_0.9_191127	EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	0.225	0.235	4.33	0% - 50%
		EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	0.267	0.297	10.5	0% - 50%
		EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	0.042	0.062	37.7	No Limit
		EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	0.034	0.049	37.7	No Limit
		EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	21	31	37.7	No Limit
EA029-E: Magnesium Values (QC Lot: 2749329)									
EB1932191-001	Anonymous	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.023	0.024	0.00	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.023	0.024	0.00	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	0.00	No Limit
ES1939690-009	BH02_2.5_191127	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.212	0.234	10.1	0% - 50%
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.142	0.150	6.04	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	0.00	No Limit
EA029-E: Magnesium Values (QC Lot: 2749330)									
ES1939690-050	MW11_3.5_1811 28	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EA029-E: Magnesium Values (QC Lot: 2749330) - continued									
ES1939690-050	MW11_3.5_1811 28	EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	0.00	No Limit
ES1939690-083	BH19_1.5_191129	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	0.108	0.110	1.31	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	0.136	0.128	5.66	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	0.028	<0.020	31.6	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	0.036	0.024	38.5	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	23	15	38.5	No Limit
EA029-E: Magnesium Values (QC Lot: 2754168)									
ES1939690-020	BH05_0.9_191127	EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	<0.020	0.00	No Limit
		EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	<0.020	0.00	No Limit
		EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	<10	0.00	No Limit
EA029-H: Acid Base Accounting (QC Lot: 2749329)									
EB1932191-001	Anonymous	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.00	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	0.00	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	<0.02	0.00	No Limit
		EA029: Liming Rate	----	1	kg CaCO3/t	<1	<1	0.00	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	<1	0.00	No Limit
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	0.00	No Limit
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	<10	0.00	No Limit
ES1939690-009	BH02_2.5_191127	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.00	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	1.84	1.90	2.82	0% - 20%
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	1.84	1.90	2.82	0% - 20%
		EA029: Liming Rate	----	1	kg CaCO3/t	86	89	2.82	0% - 20%
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	86	89	2.82	0% - 20%
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	1150	1180	2.82	0% - 20%
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	1150	1180	2.82	0% - 20%
EA029-H: Acid Base Accounting (QC Lot: 2749330)									
ES1939690-050	MW11_3.5_1811 28	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.00	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	0.11	0.12	0.00	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.11	0.12	0.00	No Limit
		EA029: Liming Rate	----	1	kg CaCO3/t	5	6	0.00	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	5	6	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA029-H: Acid Base Accounting (QC Lot: 2749330) - continued									
ES1939690-050	MW11_3.5_1811 28	EA029: Net Acidity (acidity units)	----	10	mole H+ / t	68	74	7.64	No Limit
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	68	74	7.64	No Limit
ES1939690-083	BH19_1.5_191129	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.00	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	2.58	2.44	5.44	0% - 20%
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	2.58	2.44	5.44	0% - 20%
		EA029: Liming Rate	----	1	kg CaCO3/t	120	114	5.44	0% - 20%
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	120	114	5.44	0% - 20%
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	1610	1520	5.44	0% - 20%
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	1610	1520	5.44	0% - 20%
EA029-H: Acid Base Accounting (QC Lot: 2754168)									
ES1939690-020	BH05_0.9_191127	EA029: ANC Fineness Factor	----	0.5	-	1.5	1.5	0.00	No Limit
		EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	<0.02	0.00	No Limit
		EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	0.04	0.05	0.00	No Limit
		EA029: Liming Rate	----	1	kg CaCO3/t	<1	<1	0.00	No Limit
		EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	2	2	0.00	No Limit
		EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	<10	0.00	No Limit
		EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	28	29	5.50	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2746344)									
ES1939690-005	BH01_2.5_191127	EA055: Moisture Content	----	0.1	%	82.6	82.9	0.266	0% - 20%
ES1939690-020	BH05_0.9_191127	EA055: Moisture Content	----	0.1	%	10.9	13.7	23.0	0% - 50%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2746345)									
ES1939690-035	BH08_1.1_191127	EA055: Moisture Content	----	0.1	%	15.6	15.7	0.672	0% - 50%
ES1939690-054	BH12_1.5_191128	EA055: Moisture Content	----	0.1	%	53.0	46.0	14.1	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2746423)									
ES1939690-065	BH15_2.5_191128	EA055: Moisture Content	----	0.1	%	75.4	75.7	0.484	0% - 20%
ES1939690-083	BH19_1.5_191129	EA055: Moisture Content	----	0.1	%	73.8	73.0	1.04	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 2746424)									
ES1939690-101	QC102_191129	EA055: Moisture Content	----	0.1	%	7.1	6.9	3.02	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2746341)									
ES1939690-001	BH01_0.1_191127	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.1	0.1	0.00	No Limit
ES1939690-015	BH04_0.5_191127	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	0.2	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2746343)									
ES1939690-030	BH07_1.1_191127	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1939690-050	MW11_3.5_1811 28	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.1	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2746420)									
ES1939690-062	BH14_3.0_191128	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1939690-077	BH18_0.5_191129	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.5	0.4	0.00	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2746422)									

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 2746422) - continued									
ES1939690-094	MW21_4.4_191129	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2740965)									
ES1939690-002	BH01_0.5_191127	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2740970)									
ES1939690-001	BH01_0.1_191127	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2740974)									
ES1939690-045	BH10_2.5_1811 28	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2740978)									
ES1939690-086	MW20_0.5_191129	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 2745632)									
ES1940165-002	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740964)									
ES1939690-002	BH01_0.5_191127	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740964) - continued									
ES1939690-059	BH14_0.3_ 191128	EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740969)									
ES1939690-001	BH01_0.1_191127	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740969) - continued									
ES1939690-023	BH06_0.1_191127	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	0.15	0.15	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740973)									
ES1939690-045	BH10_2.5_1811 28	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740973) - continued									
ES1939690-045	BH10_2.5_1811 28	EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.5	<0.5	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740977)									
ES1939690-086	MW20_0.5_191129	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2740977) - continued									
ES1939690-086	MW20_0.5_191129	EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 2745631)									
ES1940165-002	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740964)									
ES1939690-002	BH01_0.5_191127	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740964) - continued									
ES1939690-002	BH01_0.5_191127	EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740969)									
ES1939690-001	BH01_0.1_191127	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740969) - continued									
ES1939690-001	BH01_0.1_191127	EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740973)									
ES1939690-045	BH10_2.5_1811 28	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.12	<0.12	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740973) - continued									
ES1939690-045	BH10_2.5_1811 28	EP068: Ethion	563-12-2	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.12	<0.12	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.5	<0.5	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.5	<0.5	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740977)									
ES1939690-086	MW20_0.5_191129	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2740977) - continued									
ES1939690-086	MW20_0.5_191129	EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 2745631)									
ES1940165-002	Anonymous	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.00	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 2743256) - continued									
ES1939690-059	BH14_0.3_ 191128	EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074B: Oxygenated Compounds (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.00	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.00	No Limit
EP074C: Sulfonated Compounds (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074D: Fumigants (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 2743256) - continued									
ES1939690-002	BH01_0.5_191127	EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 2743256) - continued									
ES1939690-059	BH14_0.3_ 191128	EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.00	No Limit
		EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.00	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP074G: Trihalomethanes (QC Lot: 2743256)									
ES1939690-002	BH01_0.5_191127	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2740963)									
ES1939690-002	BH01_0.5_191127	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2740963) - continued									
ES1939690-059	BH14_0.3_ 191128	EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2740968)									
ES1939690-001	BH01_0.1_191127	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2740972)									
ES1939690-045	BH10_2.5_1811 28	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<2.0	<2.0	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2740972) - continued									
ES1939690-045	BH10_2.5_1811 28	EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<4	<4	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<4	<4	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2740976)									
ES1939690-086	MW20_0.5_191129	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)A: Phenolic Compounds (QC Lot: 2745630)									
ES1940165-002	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)A: Phenolic Compounds (QC Lot: 2745630) - continued									
ES1940165-002	Anonymous	EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	<1	0.00	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	<2	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740963)									
ES1939690-002	BH01_0.5_191127	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	0.5	0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	2.7	2.6	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	0.7	0.7	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	4.0	3.8	5.16	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	4.1	4.0	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	1.7	1.8	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	1.4	1.4	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	1.6	1.7	7.01	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	0.6	0.7	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	1.5	1.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	0.6	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.8	0.8	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	20.2	20.1	0.496	0% - 20%
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	2.0	2.0	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	0.6	0.6	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	6.1	6.2	0.00	0% - 50%
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	1.3	1.2	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	6.2	6.3	2.41	0% - 50%
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	6.0	6.1	2.31	0% - 50%
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	1.7	1.7	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	1.6	1.6	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	1.8	1.6	8.47	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	0.7	0.6	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	1.7	1.7	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.7	0.6	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740963) - continued									
ES1939690-059	BH14_0.3_ 191128	EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.9	0.8	13.9	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	29.3	29.0	1.03	0% - 20%
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	2.2	2.2	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740968)									
ES1939690-001	BH01_0.1_191127	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740968) - continued									
ES1939690-023	BH06_0.1_191127	EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740972)									
ES1939690-045	BH10_2.5_1811 28	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<2.0	<2.0	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	0.9	0.7	28.8	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	2.6	2.4	10.3	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	1.1	1.0	13.7	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	7.8	7.1	9.14	0% - 50%
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	8.0	7.3	9.56	0% - 50%
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	3.8	3.4	11.9	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	3.6	3.1	13.9	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	4.5	4.0	11.6	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	1.6	1.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740972) - continued									
ES1939690-063	BH15_0.2_181128	EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	4.1	3.6	12.7	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	1.8	1.4	21.4	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	2.3	1.7	28.8	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	42.1	37.2	12.4	0% - 20%
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	5.3	4.7	13.0	0% - 50%
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740976)									
ES1939690-086	MW20_0.5_191129	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	0.7	0.7	0.00	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	0.7	0.8	0.00	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	1.4	1.5	6.90	No Limit
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2745630)									
ES1940165-002	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	1.3	1.5	13.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	4.1	4.6	9.69	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	3.8	4.1	6.77	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	1.8	2.0	15.7	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	1.6	1.8	10.3	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2745630) - continued									
ES1940165-002	Anonymous	EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	2.6	2.5	0.00	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	1.0	1.0	0.00	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	1.8	1.8	0.00	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	1.0	1.2	16.4	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	1.2	1.4	8.12	No Limit
		EP075(SIM): Sum of polycyclic aromatic hydrocarbons	----	0.5	mg/kg	20.2	21.9	8.08	0% - 20%
		EP075(SIM): Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg	2.5	2.5	0.00	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: 2-Methylnaphthalene	91-57-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 2-Chloronaphthalene	91-58-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 3-Methylcholanthrene	56-49-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: 2-Methylnaphthalene	91-57-6	0.5	mg/kg	0.6	0.5	0.00	No Limit
		EP075: 2-Chloronaphthalene	91-58-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 3-Methylcholanthrene	56-49-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075C: Phthalate Esters (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: Dimethyl phthalate	131-11-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Diethyl phthalate	84-66-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Di-n-butyl phthalate	84-74-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Butyl benzyl phthalate	85-68-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Di-n-octylphthalate	117-84-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: Dimethyl phthalate	131-11-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Diethyl phthalate	84-66-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Di-n-butyl phthalate	84-74-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Butyl benzyl phthalate	85-68-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Di-n-octylphthalate	117-84-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075D: Nitrosamines (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodiethylamine	55-18-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosopyrrolidine	930-55-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: N-Nitrosomorpholine	59-89-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosopiperidine	100-75-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodibutylamine	924-16-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075D: Nitrosamines (QC Lot: 2740966) - continued									
ES1939690-002	BH01_0.5_191127	EP075: N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: Methapyrilene	91-80-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodiethylamine	55-18-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosopyrrolidine	930-55-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: N-Nitrosomorpholine	59-89-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosopiperidine	100-75-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodibutylamine	924-16-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: Methapyrilene	91-80-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075E: Nitroaromatics and Ketones (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: 2-Picoline	109-06-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Acetophenone	98-86-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Isophorone	78-59-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 2.6-Dinitrotoluene	606-20-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: 2.4-Dinitrotoluene	121-14-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: 1-Naphthylamine	134-32-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 5-Nitro-o-toluidine	99-55-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Phenacetin	62-44-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Aminobiphenyl	92-67-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pentachloronitrobenzene	82-68-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pronamide	23950-58-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Dimethylaminoazobenzene	60-11-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorobenzilate	510-15-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Azobenzene	103-33-3	1	mg/kg	<1	<1	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: 2-Picoline	109-06-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Acetophenone	98-86-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Isophorone	78-59-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 2.6-Dinitrotoluene	606-20-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: 2.4-Dinitrotoluene	121-14-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: 1-Naphthylamine	134-32-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 5-Nitro-o-toluidine	99-55-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075E: Nitroaromatics and Ketones (QC Lot: 2740966) - continued									
ES1939690-059	BH14_0.3_ 191128	EP075: 1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Phenacetin	62-44-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Aminobiphenyl	92-67-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pentachloronitrobenzene	82-68-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pronamide	23950-58-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Dimethylaminoazobenzene	60-11-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorobenzilate	510-15-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Azobenzene	103-33-3	1	mg/kg	<1	<1	0.00	No Limit
EP075F: Haloethers (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075G: Chlorinated Hydrocarbons (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachloroethane	67-72-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachloropropylene	1888-71-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pentachlorobenzene	608-93-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachlorobenzene (HCB)	118-74-1	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg	<2.5	<2.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachloroethane	67-72-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachloropropylene	1888-71-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pentachlorobenzene	608-93-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Hexachlorobenzene (HCB)	118-74-1	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg	<2.5	<2.5	0.00	No Limit
EP075H: Anilines and Benzidines (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: Aniline	62-53-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075H: Anilines and Benzidines (QC Lot: 2740966) - continued									
ES1939690-002	BH01_0.5_191127	EP075: 4-Chloroaniline	106-47-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 2-Nitroaniline	88-74-4	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: 3-Nitroaniline	99-09-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: Dibenzofuran	132-64-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Nitroaniline	100-01-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Carbazole	86-74-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: Aniline	62-53-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4-Chloroaniline	106-47-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 2-Nitroaniline	88-74-4	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: 3-Nitroaniline	99-09-2	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
		EP075: Dibenzofuran	132-64-9	0.5	mg/kg	0.7	0.7	0.00	No Limit
		EP075: 4-Nitroaniline	100-01-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Carbazole	86-74-8	0.5	mg/kg	0.8	0.8	0.00	No Limit
		EP075: 3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP075I: Organochlorine Pesticides (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: alpha-BHC	319-84-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: beta-BHC	319-85-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: gamma-BHC	58-89-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: delta-BHC	319-86-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Heptachlor	76-44-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Aldrin	309-00-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Heptachlor epoxide	1024-57-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: alpha-Endosulfan	959-98-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4.4`-DDE	72-55-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Dieldrin	60-57-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Endrin	72-20-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: beta-Endosulfan	33213-65-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4.4`-DDD	72-54-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Endosulfan sulfate	1031-07-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4.4`-DDT	50-29-3	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: alpha-BHC	319-84-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: beta-BHC	319-85-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: gamma-BHC	58-89-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: delta-BHC	319-86-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Heptachlor	76-44-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Aldrin	309-00-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Heptachlor epoxide	1024-57-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: alpha-Endosulfan	959-98-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4.4`-DDE	72-55-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP075I: Organochlorine Pesticides (QC Lot: 2740966) - continued									
ES1939690-059	BH14_0.3_ 191128	EP075: Dieldrin	60-57-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Endrin	72-20-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: beta-Endosulfan	33213-65-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4.4`-DDD	72-54-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Endosulfan sulfate	1031-07-8	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: 4.4`-DDT	50-29-3	0.5	mg/kg	<1.0	<1.0	0.00	No Limit
EP075J: Organophosphorus Pesticides (QC Lot: 2740966)									
ES1939690-002	BH01_0.5_191127	EP075: Dichlorvos	62-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Dimethoate	60-51-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Diazinon	333-41-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Malathion	121-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Fenthion	55-38-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorpyrifos	2921-88-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pirimphos-ethyl	23505-41-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorfenvinphos	470-90-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Prothiofos	34643-46-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Ethion	563-12-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP075: Dichlorvos	62-73-7	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Dimethoate	60-51-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Diazinon	333-41-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Malathion	121-75-5	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Fenthion	55-38-9	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorpyrifos	2921-88-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Pirimphos-ethyl	23505-41-1	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Chlorfenvinphos	470-90-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Prothiofos	34643-46-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP075: Ethion	563-12-2	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2740962)									
ES1939690-002	BH01_0.5_191127	EP071: C15 - C28 Fraction	----	100	mg/kg	100	110	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP071: C15 - C28 Fraction	----	100	mg/kg	450	460	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	740	750	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2740967)									
ES1939690-001	BH01_0.1_191127	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2740967) - continued									
ES1939690-023	BH06_0.1_191127	EP071: C15 - C28 Fraction	----	100	mg/kg	120	110	9.06	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	180	150	19.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2740971)									
ES1939690-045	BH10_2.5_1811 28	EP071: C15 - C28 Fraction	----	100	mg/kg	750	820	8.54	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	1030	1170	12.6	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<110	<110	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP071: C15 - C28 Fraction	----	100	mg/kg	280	240	14.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	380	370	2.91	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2740975)									
ES1939690-102	QC103_191129	EP071: C15 - C28 Fraction	----	100	mg/kg	5450	5560	2.05	0% - 20%
		EP071: C29 - C36 Fraction	----	100	mg/kg	4350	4420	1.54	0% - 50%
		EP071: C10 - C14 Fraction	----	50	mg/kg	<110	<110	0.00	No Limit
ES1939690-086	MW20_0.5_191129	EP071: C15 - C28 Fraction	----	100	mg/kg	140	130	8.27	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	100	120	14.1	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2743255)									
ES1939690-002	BH01_0.5_191127	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2743261)									
ES1939690-001	BH01_0.1_191127	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2743282)									
ES1939690-045	BH10_2.5_1811 28	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2743766)									
ES1939690-086	MW20_0.5_191129	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-100	QC101_191127	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2745629)									
ES1940165-002	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2740962)									
ES1939690-002	BH01_0.5_191127	EP071: >C16 - C34 Fraction	----	100	mg/kg	140	140	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP071: >C16 - C34 Fraction	----	100	mg/kg	880	910	3.22	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	810	780	4.67	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2740962) - continued									
ES1939690-059	BH14_0.3_ 191128	EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2740967)									
ES1939690-001	BH01_0.1_191127	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP071: >C16 - C34 Fraction	----	100	mg/kg	180	180	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	180	140	26.6	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2740971)									
ES1939690-045	BH10_2.5_1811 28	EP071: >C16 - C34 Fraction	----	100	mg/kg	1490	1680	11.8	0% - 50%
		EP071: >C34 - C40 Fraction	----	100	mg/kg	500	520	3.44	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<110	<110	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP071: >C16 - C34 Fraction	----	100	mg/kg	520	480	8.77	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	350	340	3.38	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2740975)									
ES1939690-102	QC103_191129	EP071: >C16 - C34 Fraction	----	100	mg/kg	9020	9250	2.56	0% - 20%
		EP071: >C34 - C40 Fraction	----	100	mg/kg	1060	960	9.70	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<110	<110	0.00	No Limit
ES1939690-086	MW20_0.5_191129	EP071: >C16 - C34 Fraction	----	100	mg/kg	180	180	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2743255)									
ES1939690-002	BH01_0.5_191127	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2743261)									
ES1939690-001	BH01_0.1_191127	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2743282)									
ES1939690-045	BH10_2.5_1811 28	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2743766)									
ES1939690-086	MW20_0.5_191129	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	103	# <10	165	0% - 50%
ES1939690-100	QC101_191127	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2745629)									
ES1940165-002	Anonymous	EP071: >C16 - C34 Fraction	----	100	mg/kg	100	100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.00	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEXN (QC Lot: 2743255)									
ES1939690-002	BH01_0.5_191127	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
ES1939690-059	BH14_0.3_ 191128	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
EP080: BTEXN (QC Lot: 2743261)									
ES1939690-001	BH01_0.1_191127	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
ES1939690-023	BH06_0.1_191127	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
EP080: BTEXN (QC Lot: 2743282)									
ES1939690-045	BH10_2.5_1811 28	EP080: Benzene	71-43-2	0.2	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
ES1939690-063	BH15_0.2_181128	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEXN (QC Lot: 2743282) - continued									
ES1939690-063	BH15_0.2_181128	EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
EP080: BTEXN (QC Lot: 2743766)									
ES1939690-086	MW20_0.5_191129	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit
ES1939690-100	QC101_191127	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.00	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.00	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 2745834)									
ES1939848-002	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
ES1939690-103	QC300_191127	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 2745833)									
ES1939690-103	QC300_191127	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ME1901609-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2741064)									
ES1939796-004	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES1939862-004	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<0.02 mg/L	<20	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2741064)									
ES1939796-004	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES1939862-004	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<0.02 mg/L	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 2741064)									
ES1939796-004	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
ES1939862-004	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<0.001 mg/L	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<0.005 mg/L	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746340)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	110	86.0	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	103	83.0	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	102	76.0	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	101	86.0	120
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	105	80.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	108	87.0	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	109	80.0	122
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746342)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	104	86.0	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	102	83.0	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	104	76.0	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	104	86.0	120
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	99.7	80.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	107	87.0	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	107	80.0	122
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746419)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	96.0	86.0	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	93.2	83.0	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	81.8	76.0	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	91.9	86.0	120
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	95.2	80.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	93.1	87.0	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	96.1	80.0	122
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746421)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	21.7 mg/kg	98.8	86.0	126
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	4.64 mg/kg	92.7	83.0	113
EG005T: Chromium	7440-47-3	2	mg/kg	<2	43.9 mg/kg	82.9	76.0	128
EG005T: Copper	7440-50-8	5	mg/kg	<5	32 mg/kg	99.4	86.0	120
EG005T: Lead	7439-92-1	5	mg/kg	<5	40 mg/kg	93.0	80.0	114
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55 mg/kg	93.0	87.0	123
EG005T: Zinc	7440-66-6	5	mg/kg	<5	60.8 mg/kg	103	80.0	122
EA029-A: pH Measurements (QCLot: 2749329)								
EA029: pH KCl (23A)	----	0.1	pH Unit	<0.1	4.4 pH Unit	97.7	70.0	130
EA029: pH OX (23B)	----	0.1	pH Unit	<0.1	4.2 pH Unit	102	70.0	130

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EA029-A: pH Measurements (QCLot: 2749330)								
EA029: pH KCl (23A)	----	0.1	pH Unit	<0.1	4.4 pH Unit	97.7	70.0	130
EA029: pH OX (23B)	----	0.1	pH Unit	<0.1	4.2 pH Unit	100	70.0	130
EA029-A: pH Measurements (QCLot: 2754168)								
EA029: pH KCl (23A)	----	0.1	pH Unit	<0.1	4.4 pH Unit	100	70.0	130
EA029: pH OX (23B)	----	0.1	pH Unit	<0.1	4.2 pH Unit	100	70.0	130
EA029-B: Acidity Trail (QCLot: 2749329)								
EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	20.1 mole H+ / t	93.5	70.0	130
EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	27.5 mole H+ / t	121	70.0	130
EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	----	----	----	----
EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029-B: Acidity Trail (QCLot: 2749330)								
EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	20.1 mole H+ / t	84.0	70.0	130
EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	27.5 mole H+ / t	109	70.0	130
EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	----	----	----	----
EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029-B: Acidity Trail (QCLot: 2754168)								
EA029: Titratable Actual Acidity (23F)	----	2	mole H+ / t	<2	20.1 mole H+ / t	112	70.0	130
EA029: Titratable Peroxide Acidity (23G)	----	2	mole H+ / t	<2	27.5 mole H+ / t	114	70.0	130
EA029: Titratable Sulfidic Acidity (23H)	----	2	mole H+ / t	<2	----	----	----	----
EA029: sulfidic - Titratable Actual Acidity (s-23F)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: sulfidic - Titratable Peroxide Acidity (s-23G)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: sulfidic - Titratable Sulfidic Acidity (s-23H)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029-C: Sulfur Trail (QCLot: 2749329)								
EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	0.055 % S	73.7	70.0	130
EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	0.184 % S	82.2	70.0	130
EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	<0.020	----	----	----	----
EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	----	----	----	----
EA029-C: Sulfur Trail (QCLot: 2749330)								
EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	0.055 % S	81.7	70.0	130
EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	0.184 % S	89.9	70.0	130
EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	<0.020	----	----	----	----
EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	----	----	----	----
EA029-C: Sulfur Trail (QCLot: 2754168)								
EA029: KCl Extractable Sulfur (23Ce)	----	0.02	% S	<0.020	0.055 % S	81.7	70.0	130

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EA029-C: Sulfur Trail (QCLot: 2754168) - continued								
EA029: Peroxide Sulfur (23De)	----	0.02	% S	<0.020	0.184 % S	89.9	70.0	130
EA029: Peroxide Oxidisable Sulfur (23E)	----	0.02	% S	<0.020	----	----	----	----
EA029: acidity - Peroxide Oxidisable Sulfur (a-23E)	----	10	mole H+ / t	<10	----	----	----	----
EA029-D: Calcium Values (QCLot: 2749329)								
EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	0.124 % Ca	126	70.0	130
EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	0.223 % Ca	95.5	70.0	130
EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	----	----	----	----
EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	----	----	----	----
EA029-D: Calcium Values (QCLot: 2749330)								
EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	0.124 % Ca	113	70.0	130
EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	0.223 % Ca	92.4	70.0	130
EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	----	----	----	----
EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	----	----	----	----
EA029-D: Calcium Values (QCLot: 2754168)								
EA029: KCl Extractable Calcium (23Vh)	----	0.02	% Ca	<0.020	0.124 % Ca	113	70.0	130
EA029: Peroxide Calcium (23Wh)	----	0.02	% Ca	<0.020	0.223 % Ca	92.4	70.0	130
EA029: Acid Reacted Calcium (23X)	----	0.02	% Ca	<0.020	----	----	----	----
EA029: acidity - Acid Reacted Calcium (a-23X)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Calcium (s-23X)	----	0.02	% S	<0.020	----	----	----	----
EA029-E: Magnesium Values (QCLot: 2749329)								
EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	0.196 % Mg	108	70.0	130
EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	0.218 % Mg	99.0	70.0	130
EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	----	----	----	----
EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	----	----	----	----
EA029-E: Magnesium Values (QCLot: 2749330)								
EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	0.196 % Mg	91.9	70.0	130
EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	0.218 % Mg	95.1	70.0	130
EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	----	----	----	----
EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	----	----	----	----
EA029-E: Magnesium Values (QCLot: 2754168)								
EA029: KCl Extractable Magnesium (23Sm)	----	0.02	% Mg	<0.020	0.196 % Mg	91.9	70.0	130
EA029: Peroxide Magnesium (23Tm)	----	0.02	% Mg	<0.020	0.218 % Mg	95.1	70.0	130
EA029: Acid Reacted Magnesium (23U)	----	0.02	% Mg	<0.020	----	----	----	----
EA029: Acidity - Acid Reacted Magnesium (a-23U)	----	10	mole H+ / t	<10	----	----	----	----

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EA029-E: Magnesium Values (QCLot: 2754168) - continued								
EA029: sulfidic - Acid Reacted Magnesium (s-23U)	----	0.02	% S	<0.020	----	----	----	----
EA029-F: Excess Acid Neutralising Capacity (QCLot: 2749329)								
EA029: Excess Acid Neutralising Capacity (23Q)	----	0.02	% CaCO3	<0.020	----	----	----	----
EA029: acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.02	% S	<0.020	----	----	----	----
EA029-F: Excess Acid Neutralising Capacity (QCLot: 2754168)								
EA029: Excess Acid Neutralising Capacity (23Q)	----	0.02	% CaCO3	<0.020	----	----	----	----
EA029: acidity - Excess Acid Neutralising Capacity (a-23Q)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Excess Acid Neutralising Capacity (s-23Q)	----	0.02	% S	<0.020	----	----	----	----
EA029-G: Retained Acidity (QCLot: 2749329)								
EA029: Net Acid Soluble Sulfur (20Je)	----	0.02	% S	<0.020	----	----	----	----
EA029: acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: HCl Extractable Sulfur (20Be)	----	0.02	% S	<0.020	0.279 % S	104	70.0	130
EA029-G: Retained Acidity (QCLot: 2749330)								
EA029: Net Acid Soluble Sulfur (20Je)	----	0.02	% S	<0.020	----	----	----	----
EA029: acidity - Net Acid Soluble Sulfur (a-20J)	----	10	mole H+ / t	<10	----	----	----	----
EA029: sulfidic - Net Acid Soluble Sulfur (s-20J)	----	0.02	% pyrite S	<0.020	----	----	----	----
EA029: HCl Extractable Sulfur (20Be)	----	0.02	% S	<0.020	0.279 % S	95.7	70.0	130
EA029-H: Acid Base Accounting (QCLot: 2749329)								
EA029: ANC Fineness Factor	----	0.5	-	<0.5	----	----	----	----
EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate	----	1	kg CaCO3/t	<1	----	----	----	----
EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	----	----	----	----
EA029-H: Acid Base Accounting (QCLot: 2749330)								
EA029: ANC Fineness Factor	----	0.5	-	<0.5	----	----	----	----
EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate	----	1	kg CaCO3/t	<1	----	----	----	----
EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	----	----	----	----
EA029-H: Acid Base Accounting (QCLot: 2754168)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EA029-H: Acid Base Accounting (QCLot: 2754168) - continued								
EA029: ANC Fineness Factor	----	0.5	-	<0.5	----	----	----	----
EA029: Net Acidity (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate	----	1	kg CaCO3/t	<1	----	----	----	----
EA029: Net Acidity excluding ANC (sulfur units)	----	0.02	% S	<0.02	----	----	----	----
EA029: Net Acidity excluding ANC (acidity units)	----	10	mole H+ / t	<10	----	----	----	----
EA029: Liming Rate excluding ANC	----	1	kg CaCO3/t	<1	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746341)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	88.2	70.0	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746343)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	91.8	70.0	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746420)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	87.3	70.0	105
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746422)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	2.57 mg/kg	85.9	70.0	105
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740965)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	84.0	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740970)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	79.0	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740974)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	102	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740978)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	96.0	62.0	126
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2745632)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	1 mg/kg	105	62.0	126
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740964)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	87.2	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	90.0	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	91.1	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.2	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.2	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	87.6	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	89.1	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	89.0	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.4	64.0	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740964) - continued								
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	83.3	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	93.1	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	86.8	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.7	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	94.9	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	75.4	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.1	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	87.9	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.8	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	76.2	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740969)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	83.2	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	108	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	105	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	93.9	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	92.2	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.7	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	107	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	99.2	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.4	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	82.3	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	96.8	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	106	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	100	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	78.2	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	103	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	77.0	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740973)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	89.9	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	106	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	102	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.7	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.8	67.0	115

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740973) - continued								
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	101	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	85.4	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	78.7	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	103	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	80.0	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	94.7	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	106	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.4	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.4	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	89.0	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	77.9	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	81.2	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	84.0	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	82.2	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	79.0	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740977)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	69.0	113
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.8	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	104	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	103	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	99.6	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.4	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	104	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	77.5	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	91.2	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	76.8	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	87.2	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	101	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.6	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	93.4	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	101	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	91.2	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	92.4	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	92.8	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	80.2	54.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2745631)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	105	69.0	113

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 2745631) - continued								
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	81.1	65.0	117
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	99.5	67.0	119
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	97.5	68.0	116
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.4	65.0	117
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	105	67.0	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	106	69.0	115
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	118
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	104	63.0	117
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	107	66.0	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	108	64.0	116
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	94.6	66.0	116
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	98.6	67.0	115
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	105	67.0	123
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	99.1	69.0	115
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	96.8	69.0	121
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	103	56.0	120
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	102	62.0	124
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	94.5	66.0	120
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	94.8	64.0	122
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	88.4	54.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740964)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	80.0	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	82.5	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	97.9	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	90.1	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	86.1	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	80.9	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	81.0	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	85.7	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	82.5	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.7	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	82.0	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	81.7	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	76.7	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	83.9	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	77.2	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	84.8	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	83.1	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.9	65.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740964) - continued								
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	64.5	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740969)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	105	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	76.4	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	89.1	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	96.6	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	95.6	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	94.7	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	98.3	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	88.9	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	99.3	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	103	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	91.4	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.5	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	84.8	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	90.3	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	79.6	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	105	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	69.7	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740973)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	91.5	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	95.9	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	79.7	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	107	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	99.4	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	76.5	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	92.3	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	91.6	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	79.2	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	91.3	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	77.8	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	81.9	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	81.4	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	74.2	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	99.3	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	83.0	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	76.4	68.0	120

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740973) - continued								
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	87.0	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	61.0	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740977)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	106	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	90.0	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	87.9	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	105	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	99.9	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	84.4	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	84.1	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	93.0	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	83.4	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	94.2	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	82.6	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	89.0	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	82.6	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	81.6	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	90.3	62.0	112
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	85.8	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	90.5	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	67.5	41.0	123
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2745631)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.5 mg/kg	86.7	59.0	119
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	104	62.0	128
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.5 mg/kg	76.1	54.0	126
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.5 mg/kg	87.7	67.0	119
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.5 mg/kg	90.8	70.0	120
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.5 mg/kg	106	72.0	120
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.5 mg/kg	102	68.0	120
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.5 mg/kg	96.6	68.0	122
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.5 mg/kg	89.1	69.0	117
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.5 mg/kg	106	76.0	118
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.5 mg/kg	107	64.0	122
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.5 mg/kg	82.0	70.0	116
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.5 mg/kg	103	69.0	121
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	66.0	118
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.5 mg/kg	106	68.0	124
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.5 mg/kg	100	62.0	112

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2745631) - continued								
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.5 mg/kg	102	68.0	120
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.5 mg/kg	93.9	65.0	127
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.5 mg/kg	88.8	41.0	123
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 2743256)								
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	92.1	67.0	113
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	94.3	65.0	117
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	92.3	66.0	122
EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	91.8	68.0	118
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	92.4	69.0	119
EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	92.4	69.0	117
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	94.1	69.0	115
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	95.6	66.0	118
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	91.3	59.0	125
EP074B: Oxygenated Compounds (QCLot: 2743256)								
EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	10 mg/kg	99.3	29.6	156
EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	10 mg/kg	98.4	58.0	136
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	10 mg/kg	97.1	62.0	132
EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	10 mg/kg	102	54.0	136
EP074C: Sulfonated Compounds (QCLot: 2743256)								
EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	1 mg/kg	95.9	54.0	126
EP074D: Fumigants (QCLot: 2743256)								
EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	1 mg/kg	99.2	60.0	126
EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	1 mg/kg	95.7	68.0	124
EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	1 mg/kg	100	51.0	119
EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	1 mg/kg	96.0	52.0	114
EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	1 mg/kg	99.5	63.0	115
EP074E: Halogenated Aliphatic Compounds (QCLot: 2743256)								
EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	10 mg/kg	96.7	30.0	148
EP074: Chloromethane	74-87-3	5	mg/kg	<5	10 mg/kg	102	41.0	141
EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	10 mg/kg	97.6	43.0	147
EP074: Bromomethane	74-83-9	5	mg/kg	<5	10 mg/kg	104	47.0	141
EP074: Chloroethane	75-00-3	5	mg/kg	<5	10 mg/kg	98.1	49.0	143
EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	10 mg/kg	98.9	49.0	135
EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	1 mg/kg	94.9	54.0	126
EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	1 mg/kg	104	43.0	129
EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	1 mg/kg	97.4	64.0	120
EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	1 mg/kg	94.0	67.0	125
EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	1 mg/kg	97.4	69.0	121

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074E: Halogenated Aliphatic Compounds (QCLot: 2743256) - continued								
EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	1 mg/kg	98.6	65.0	117
EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	1 mg/kg	99.3	65.0	123
EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	1 mg/kg	99.2	59.0	125
EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	1 mg/kg	95.1	65.0	125
EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	1 mg/kg	92.8	70.0	118
EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	1 mg/kg	98.9	68.0	118
EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	1 mg/kg	93.1	64.0	126
EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	1 mg/kg	102	68.0	122
EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	1 mg/kg	101	67.0	143
EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	1 mg/kg	95.5	62.0	122
EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	1 mg/kg	95.0	54.0	128
EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	1 mg/kg	96.2	55.0	129
EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	1 mg/kg	98.0	65.0	121
EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	1 mg/kg	98.6	61.0	125
EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	1 mg/kg	90.9	19.8	134
EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	1 mg/kg	96.2	53.0	129
EP074F: Halogenated Aromatic Compounds (QCLot: 2743256)								
EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	1 mg/kg	104	68.0	116
EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	1 mg/kg	93.9	70.0	114
EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	1 mg/kg	96.1	68.0	122
EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	1 mg/kg	91.8	67.0	123
EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	1 mg/kg	96.6	52.0	122
EP074G: Trihalomethanes (QCLot: 2743256)								
EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	1 mg/kg	94.6	66.0	124
EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	1 mg/kg	95.7	61.0	121
EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	1 mg/kg	97.6	63.0	121
EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	1 mg/kg	98.5	60.0	126
EP075(SIM)A: Phenolic Compounds (QCLot: 2740963)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	90.0	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	93.8	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	94.4	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	99.5	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	77.6	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	93.6	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	92.2	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	93.8	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	87.8	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	87.0	54.0	114

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2740963) - continued								
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	93.6	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	42.6	10.0	57.0
EP075(SIM)A: Phenolic Compounds (QCLot: 2740968)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	87.1	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	92.8	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	93.3	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	97.3	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	69.1	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	94.4	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	93.9	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	96.4	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	87.8	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	87.8	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	95.0	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	11.5	10.0	57.0
EP075(SIM)A: Phenolic Compounds (QCLot: 2740972)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	112	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	119	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	109	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	113	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	87.6	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	74.1	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	116	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	119	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	105	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	112	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	110	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	55.4	10.0	57.0
EP075(SIM)A: Phenolic Compounds (QCLot: 2740976)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	95.3	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	97.6	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	100	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	105	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	67.7	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	98.6	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	95.5	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	98.0	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	90.1	70.0	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2740976) - continued								
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	84.9	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	93.0	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	10.7	10.0	57.0
EP075(SIM)A: Phenolic Compounds (QCLot: 2745630)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	6 mg/kg	93.6	71.0	125
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	6 mg/kg	93.2	72.0	124
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	6 mg/kg	94.4	71.0	123
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1	mg/kg	<1	12 mg/kg	92.2	67.0	127
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	6 mg/kg	92.1	54.0	114
EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	6 mg/kg	91.2	68.0	126
EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	6 mg/kg	89.1	66.0	120
EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	6 mg/kg	92.6	70.0	120
EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	6 mg/kg	91.2	70.0	116
EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	6 mg/kg	97.5	54.0	114
EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	6 mg/kg	86.4	60.0	114
EP075(SIM): Pentachlorophenol	87-86-5	2	mg/kg	<2	12 mg/kg	33.6	10.0	57.0
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740963)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	99.2	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	103	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	102	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	104	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	103	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	103	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	108	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	109	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	93.2	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	93.1	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	89.9	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	96.1	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	100	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	79.9	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	78.3	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	78.6	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740968)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	100	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	106	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	101	73.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740968) - continued								
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	103	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	103	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	103	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	109	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	110	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	93.0	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	94.3	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	87.0	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	95.5	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	98.6	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	85.2	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	84.2	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	84.5	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740972)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	119	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	116	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	117	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	123	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	114	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	126	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	125	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	118	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	122	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	125	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	112	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	120	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	117	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	110	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	106	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	111	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740976)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	107	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	110	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	107	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	109	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	111	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	110	77.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740976) - continued								
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	116	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	117	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	95.4	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	99.0	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	84.6	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	97.3	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	98.9	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	74.0	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	71.1	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	77.5	63.0	121
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2745630)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	6 mg/kg	90.6	77.0	125
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	6 mg/kg	99.7	72.0	124
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	6 mg/kg	96.9	73.0	127
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	6 mg/kg	98.5	72.0	126
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	6 mg/kg	90.7	75.0	127
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	6 mg/kg	94.4	77.0	127
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	6 mg/kg	93.9	73.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	6 mg/kg	91.3	74.0	128
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	6 mg/kg	101	69.0	123
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	6 mg/kg	92.0	75.0	127
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	6 mg/kg	97.8	68.0	116
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	6 mg/kg	96.6	74.0	126
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	6 mg/kg	91.4	70.0	126
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	6 mg/kg	92.2	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	6 mg/kg	89.9	62.0	118
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	6 mg/kg	94.0	63.0	121
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740966)								
EP075: 2-Methylnaphthalene	91-57-6	0.5	mg/kg	<0.5	1.5 mg/kg	100	58.0	116
EP075: 2-Chloronaphthalene	91-58-7	0.5	mg/kg	<0.5	1.5 mg/kg	96.5	54.0	112
EP075: N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg	<0.5	1.5 mg/kg	101	58.0	114
EP075: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg	<0.5	1.5 mg/kg	95.1	48.1	106
EP075: 3-Methylcholanthrene	56-49-5	0.5	mg/kg	<0.5	1.5 mg/kg	81.0	50.0	116
EP075C: Phthalate Esters (QCLot: 2740966)								
EP075: Dimethyl phthalate	131-11-3	0.5	mg/kg	<0.5	1.5 mg/kg	101	60.0	118
EP075: Diethyl phthalate	84-66-2	0.5	mg/kg	<0.5	1.5 mg/kg	103	65.0	115

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075C: Phthalate Esters (QCLot: 2740966) - continued								
EP075: Di-n-butyl phthalate	84-74-2	0.5	mg/kg	<0.5	1.5 mg/kg	96.4	65.0	121
EP075: Butyl benzyl phthalate	85-68-7	0.5	mg/kg	<0.5	1.5 mg/kg	101	62.0	116
EP075: bis(2-ethylhexyl) phthalate	117-81-7	----	mg/kg	----	1.5 mg/kg	91.8	69.0	133
EP075: Di-n-octylphthalate	117-84-0	0.5	mg/kg	<0.5	1.5 mg/kg	90.8	62.0	124
EP075D: Nitrosamines (QCLot: 2740966)								
EP075: N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg	<0.5	1.5 mg/kg	112	39.4	124
EP075: N-Nitrosodiethylamine	55-18-5	0.5	mg/kg	<0.5	1.5 mg/kg	99.0	59.0	117
EP075: N-Nitrosopyrrolidine	930-55-2	0.5	mg/kg	<0.5	1.5 mg/kg	113	53.0	125
EP075: N-Nitrosomorpholine	59-89-2	0.5	mg/kg	<0.5	1.5 mg/kg	107	65.0	121
EP075: N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg	<0.5	1.5 mg/kg	103	59.0	123
EP075: N-Nitrosopiperidine	100-75-4	0.5	mg/kg	<0.5	1.5 mg/kg	103	57.0	115
EP075: N-Nitrosodibutylamine	924-16-3	0.5	mg/kg	<0.5	1.5 mg/kg	97.7	57.0	119
EP075: N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	0.5	mg/kg	<0.6	3 mg/kg	103	42.0	112
EP075: Methapyrilene	91-80-5	0.5	mg/kg	<0.5	1.5 mg/kg	49.6	16.3	123
EP075E: Nitroaromatics and Ketones (QCLot: 2740966)								
EP075: 2-Picoline	109-06-8	0.5	mg/kg	<0.5	1.5 mg/kg	110	27.3	129
EP075: Acetophenone	98-86-2	0.5	mg/kg	<0.5	1.5 mg/kg	104	60.0	116
EP075: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	1.5 mg/kg	104	65.0	119
EP075: Isophorone	78-59-1	0.5	mg/kg	<0.5	1.5 mg/kg	101	62.0	116
EP075: 2.6-Dinitrotoluene	606-20-2	0.5	mg/kg	<0.5	1.5 mg/kg	103	58.0	118
EP075: 2.4-Dinitrotoluene	121-14-2	0.5	mg/kg	<0.5	1.5 mg/kg	97.2	59.0	115
EP075: 1-Naphthylamine	134-32-7	0.5	mg/kg	<0.5	1.5 mg/kg	53.0	18.0	112
EP075: 4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg	<0.5	1.5 mg/kg	85.6	10.0	87.0
EP075: 5-Nitro-o-toluidine	99-55-8	0.5	mg/kg	<0.5	1.5 mg/kg	97.0	48.3	98.5
EP075: Azobenzene	103-33-3	1	mg/kg	<1	1.5 mg/kg	101	62.0	118
EP075: 1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg	<0.5	1.5 mg/kg	93.4	36.0	114
EP075: Phenacetin	62-44-2	0.5	mg/kg	<0.5	1.5 mg/kg	114	62.0	114
EP075: 4-Aminobiphenyl	92-67-1	0.5	mg/kg	<0.5	1.5 mg/kg	64.7	36.1	102
EP075: Pentachloronitrobenzene	82-68-8	0.5	mg/kg	<0.5	1.5 mg/kg	93.6	56.0	110
EP075: Pronamide	23950-58-5	0.5	mg/kg	<0.5	1.5 mg/kg	88.2	54.0	110
EP075: Dimethylaminoazobenzene	60-11-7	0.5	mg/kg	<0.5	1.5 mg/kg	93.6	48.0	108
EP075: Chlorobenzilate	510-15-6	0.5	mg/kg	<0.5	1.5 mg/kg	95.6	57.4	112
EP075F: Haloethers (QCLot: 2740966)								
EP075: Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg	<0.5	1.5 mg/kg	109	63.0	121
EP075: Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg	<0.5	1.5 mg/kg	106	59.0	115
EP075: 4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg	<0.5	1.5 mg/kg	98.4	58.0	112
EP075: 4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg	<0.5	1.5 mg/kg	98.1	58.0	110

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075G: Chlorinated Hydrocarbons (QCLot: 2740966)								
EP075: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	1.5 mg/kg	99.1	58.0	112
EP075: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	1.5 mg/kg	99.8	58.0	116
EP075: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	1.5 mg/kg	100	57.0	115
EP075: Hexachloroethane	67-72-1	0.5	mg/kg	<0.5	1.5 mg/kg	98.1	54.0	116
EP075: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	1.5 mg/kg	97.9	62.9	108
EP075: Hexachloropropylene	1888-71-7	0.5	mg/kg	<0.5	1.5 mg/kg	91.0	39.1	110
EP075: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	1.5 mg/kg	96.4	59.0	117
EP075: Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg	<2.5	1.5 mg/kg	70.8	24.3	108
EP075: Pentachlorobenzene	608-93-5	0.5	mg/kg	<0.5	1.5 mg/kg	95.3	57.0	109
EP075: Hexachlorobenzene (HCB)	118-74-1	0.5	mg/kg	<0.5	1.5 mg/kg	99.9	59.0	111
EP075H: Anilines and Benzidines (QCLot: 2740966)								
EP075: Aniline	62-53-3	0.5	mg/kg	<0.5	1.5 mg/kg	84.9	13.2	108
EP075: 4-Chloroaniline	106-47-8	0.5	mg/kg	<0.5	1.5 mg/kg	30.6	20.5	99.0
EP075: 2-Nitroaniline	88-74-4	0.5	mg/kg	<0.5	1.5 mg/kg	108	52.0	112
EP075: 3-Nitroaniline	99-09-2	0.5	mg/kg	<0.5	1.5 mg/kg	83.3	31.5	93.7
EP075: Dibenzofuran	132-64-9	0.5	mg/kg	<0.5	1.5 mg/kg	100	60.0	110
EP075: 4-Nitroaniline	100-01-6	0.5	mg/kg	<0.5	1.5 mg/kg	112	42.0	112
EP075: Carbazole	86-74-8	0.5	mg/kg	<0.5	1.5 mg/kg	101	59.0	111
EP075: 3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg	<0.5	1.5 mg/kg	69.2	23.1	113
EP075I: Organochlorine Pesticides (QCLot: 2740966)								
EP075: alpha-BHC	319-84-6	0.5	mg/kg	<0.5	1.5 mg/kg	95.6	63.0	113
EP075: beta-BHC	319-85-7	0.5	mg/kg	<0.5	1.5 mg/kg	98.0	57.0	113
EP075: gamma-BHC	58-89-9	0.5	mg/kg	<0.5	1.5 mg/kg	92.5	61.0	117
EP075: delta-BHC	319-86-8	0.5	mg/kg	<0.5	1.5 mg/kg	91.2	64.0	118
EP075: Heptachlor	76-44-8	0.5	mg/kg	<0.5	1.5 mg/kg	88.7	55.0	115
EP075: Aldrin	309-00-2	0.5	mg/kg	<0.5	1.5 mg/kg	89.2	61.0	115
EP075: Heptachlor epoxide	1024-57-3	0.5	mg/kg	<0.5	1.5 mg/kg	88.2	56.0	118
EP075: alpha-Endosulfan	959-98-8	0.5	mg/kg	<0.5	1.5 mg/kg	72.4	65.0	125
EP075: 4.4`-DDE	72-55-9	0.5	mg/kg	<0.5	1.5 mg/kg	92.8	60.0	116
EP075: Dieldrin	60-57-1	0.5	mg/kg	<0.5	1.5 mg/kg	98.7	64.0	118
EP075: Endrin	72-20-8	0.5	mg/kg	<0.5	1.5 mg/kg	94.4	53.0	117
EP075: beta-Endosulfan	33213-65-9	0.5	mg/kg	<0.5	1.5 mg/kg	101	65.0	115
EP075: 4.4`-DDD	72-54-8	0.5	mg/kg	<0.5	1.5 mg/kg	98.8	62.0	118
EP075: Endosulfan sulfate	1031-07-8	0.5	mg/kg	<0.5	1.5 mg/kg	116	63.0	129
EP075: 4.4`-DDT	50-29-3	0.5	mg/kg	<0.5	1.5 mg/kg	97.5	46.0	122
EP075J: Organophosphorus Pesticides (QCLot: 2740966)								
EP075: Dichlorvos	62-73-7	0.5	mg/kg	<0.5	1.5 mg/kg	46.4	46.0	112
EP075: Dimethoate	60-51-5	0.5	mg/kg	<0.5	1.5 mg/kg	106	63.0	119

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075J: Organophosphorus Pesticides (QCLot: 2740966) - continued								
EP075: Diazinon	333-41-5	0.5	mg/kg	<0.5	1.5 mg/kg	98.9	68.0	134
EP075: Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg	<0.5	1.5 mg/kg	98.9	60.0	130
EP075: Malathion	121-75-5	0.5	mg/kg	<0.5	1.5 mg/kg	122	65.0	127
EP075: Fenthion	55-38-9	0.5	mg/kg	<0.5	1.5 mg/kg	102	60.0	116
EP075: Chlorpyrifos	2921-88-2	0.5	mg/kg	<0.5	1.5 mg/kg	94.3	63.0	113
EP075: Pirimphos-ethyl	23505-41-1	0.5	mg/kg	<0.5	1.5 mg/kg	94.9	65.0	115
EP075: Chlorfenvinphos	470-90-6	0.5	mg/kg	<0.5	1.5 mg/kg	87.0	59.0	103
EP075: Prothiofos	34643-46-4	0.5	mg/kg	<0.5	1.5 mg/kg	97.3	59.0	119
EP075: Ethion	563-12-2	0.5	mg/kg	<0.5	1.5 mg/kg	105	62.0	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740962)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	106	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	104	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	97.8	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740967)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	97.0	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	96.6	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	91.9	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740971)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	112	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	106	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	93.7	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740975)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	102	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	100	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	109	71.0	129
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743255)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	74.0	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743261)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	93.3	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743282)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	95.6	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743766)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	96.8	68.4	128
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2745629)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	93.2	75.0	129
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	93.5	77.0	131
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	92.0	71.0	129

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740962)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	103	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	103	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	85.9	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740967)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	97.2	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	94.3	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	90.2	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740971)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	106	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	108	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	78.9	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740975)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	98.3	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	103	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	109	63.0	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743255)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	73.6	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743261)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	92.8	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743282)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	94.5	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743766)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	31 mg/kg	100	68.4	128
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2745629)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	93.4	77.0	125
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	92.4	74.0	138
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	90.5	63.0	131
EP080: BTEXN (QCLot: 2743255)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	85.8	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	87.5	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	90.5	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	90.7	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	93.5	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	99.7	63.0	119
EP080: BTEXN (QCLot: 2743261)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	84.0	62.0	116

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080: BTEXN (QCLot: 2743261) - continued								
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	87.0	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	85.4	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	86.0	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	84.8	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	95.5	63.0	119
EP080: BTEXN (QCLot: 2743282)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	99.7	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	98.4	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	98.5	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	101	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	104	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	103	63.0	119
EP080: BTEXN (QCLot: 2743766)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	96.9	62.0	116
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	93.7	67.0	121
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	97.2	65.0	117
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	102	66.0	118
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	102	68.0	120
EP080: Naphthalene	91-20-3	1	mg/kg	<1	1 mg/kg	105	63.0	119

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2745834)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	98.5	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	98.3	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	101	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	96.0	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.6	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	95.4	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	97.4	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 2745833)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	98.3	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2741023)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	2000 µg/L	62.5	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	3000 µg/L	90.8	71.6	113

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2741023) - continued								
EP071: C29 - C36 Fraction	----	50	µg/L	<50	2000 µg/L	60.0	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2741064)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	80.9	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2741023)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	2500 µg/L	99.6	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	3500 µg/L	87.3	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	1500 µg/L	85.7	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2741064)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	79.4	75.0	127
EP080: BTEXN (QCLot: 2741064)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	89.7	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	93.6	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	89.5	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	90.0	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	88.9	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	90.0	70.0	120

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
				Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746340)							
ES1939690-001	BH01_0.1_191127	EG005T: Arsenic	7440-38-2	50 mg/kg	98.8	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.3	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.6	70.0	130
		EG005T: Copper	7440-50-8	250 mg/kg	96.9	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	90.2	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	97.2	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	90.4	70.0	130
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746342)							
ES1939690-030	BH07_1.1_191127	EG005T: Arsenic	7440-38-2	50 mg/kg	97.1	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	97.8	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	96.5	70.0	130
		EG005T: Copper	7440-50-8	250 mg/kg	97.0	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746342) - continued							
ES1939690-030	BH07_1.1_191127	EG005T: Lead	7439-92-1	250 mg/kg	95.9	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	98.4	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	96.9	70.0	130
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746419)							
ES1939690-062	BH14_3.0_191128	EG005T: Arsenic	7440-38-2	50 mg/kg	96.4	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	95.4	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	99.4	70.0	130
		EG005T: Copper	7440-50-8	250 mg/kg	94.9	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	95.9	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	94.5	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	101	70.0	130
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 2746421)							
ES1939690-094	MW21_4.4_191129	EG005T: Arsenic	7440-38-2	50 mg/kg	93.3	70.0	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	92.0	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	92.0	70.0	130
		EG005T: Copper	7440-50-8	250 mg/kg	89.8	70.0	130
		EG005T: Lead	7439-92-1	250 mg/kg	92.5	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	98.0	70.0	130
		EG005T: Zinc	7440-66-6	250 mg/kg	95.6	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746341)							
ES1939690-001	BH01_0.1_191127	EG035T: Mercury	7439-97-6	5 mg/kg	90.1	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746343)							
ES1939690-030	BH07_1.1_191127	EG035T: Mercury	7439-97-6	5 mg/kg	87.9	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746420)							
ES1939690-062	BH14_3.0_191128	EG035T: Mercury	7439-97-6	5 mg/kg	91.7	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 2746422)							
ES1939690-094	MW21_4.4_191129	EG035T: Mercury	7439-97-6	5 mg/kg	92.3	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740965)							
ES1939690-002	BH01_0.5_191127	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	90.0	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740970)							
ES1939690-001	BH01_0.1_191127	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	113	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740974)							
ES1939690-045	BH10_2.5_1811 28	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	83.0	70.0	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2740978)							
ES1939690-086	MW20_0.5_191129	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	97.0	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 2745632)							
ES1940165-002	Anonymous	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	116	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740964)							
ES1939690-002	BH01_0.5_191127	EP068: gamma-BHC	58-89-9	0.5 mg/kg	105	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	83.6	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	109	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	106	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	100	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	94.8	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740969)							
ES1939690-001	BH01_0.1_191127	EP068: gamma-BHC	58-89-9	0.5 mg/kg	94.2	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	87.1	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	108	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	87.9	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	106	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	86.6	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740973)							
ES1939690-045	BH10_2.5_1811 28	EP068: gamma-BHC	58-89-9	0.5 mg/kg	81.1	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	71.6	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	80.6	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	91.9	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	81.9	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	86.2	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2740977)							
ES1939690-086	MW20_0.5_191129	EP068: gamma-BHC	58-89-9	0.5 mg/kg	88.3	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	72.8	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	102	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	81.9	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	81.8	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	81.3	70.0	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 2745631)							
ES1940165-002	Anonymous	EP068: gamma-BHC	58-89-9	0.5 mg/kg	106	70.0	130
		EP068: Heptachlor	76-44-8	0.5 mg/kg	107	70.0	130
		EP068: Aldrin	309-00-2	0.5 mg/kg	110	70.0	130
		EP068: Dieldrin	60-57-1	0.5 mg/kg	77.0	70.0	130
		EP068: Endrin	72-20-8	2 mg/kg	98.4	70.0	130
		EP068: 4.4`-DDT	50-29-3	2 mg/kg	80.8	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740964)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740964) - continued							
ES1939690-002	BH01_0.5_191127	EP068: Diazinon	333-41-5	0.5 mg/kg	110	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	83.1	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	96.8	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	104	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	98.7	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740969)							
ES1939690-001	BH01_0.1_191127	EP068: Diazinon	333-41-5	0.5 mg/kg	102	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	112	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	103	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	106	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	79.1	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740973)							
ES1939690-045	BH10_2.5_1811 28	EP068: Diazinon	333-41-5	0.5 mg/kg	95.4	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	71.2	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	72.9	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	80.3	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	87.0	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2740977)							
ES1939690-086	MW20_0.5_191129	EP068: Diazinon	333-41-5	0.5 mg/kg	82.7	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	91.4	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	87.0	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	88.5	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	74.8	70.0	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 2745631)							
ES1940165-002	Anonymous	EP068: Diazinon	333-41-5	0.5 mg/kg	108	70.0	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.5 mg/kg	113	70.0	130
		EP068: Pirimphos-ethyl	23505-41-1	0.5 mg/kg	87.5	70.0	130
		EP068: Bromophos-ethyl	4824-78-6	0.5 mg/kg	106	70.0	130
		EP068: Prothiofos	34643-46-4	0.5 mg/kg	120	70.0	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 2743256)							
ES1939690-002	BH01_0.5_191127	EP074: 1.1-Dichloroethene	75-35-4	2.5 mg/kg	77.8	70.0	130
		EP074: Trichloroethene	79-01-6	2.5 mg/kg	85.0	70.0	130
EP074F: Halogenated Aromatic Compounds (QCLot: 2743256)							
ES1939690-002	BH01_0.5_191127	EP074: Chlorobenzene	108-90-7	2.5 mg/kg	109	70.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2740963)							
ES1939690-002	BH01_0.5_191127	EP075(SIM): Phenol	108-95-2	10 mg/kg	80.6	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	85.1	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075(SIM)A: Phenolic Compounds (QCLot: 2740963) - continued							
ES1939690-002	BH01_0.5_191127	EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	75.4	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	78.8	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	44.3	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2740968)							
ES1939690-001	BH01_0.1_191127	EP075(SIM): Phenol	108-95-2	10 mg/kg	84.6	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	93.0	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	83.0	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	87.4	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	69.2	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2740972)							
ES1939690-045	BH10_2.5_1811 28	EP075(SIM): Phenol	108-95-2	10 mg/kg	115	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	120	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	101	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	107	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	111	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2740976)							
ES1939690-086	MW20_0.5_191129	EP075(SIM): Phenol	108-95-2	10 mg/kg	80.2	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	85.8	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	84.6	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	79.8	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	78.0	20.0	130
EP075(SIM)A: Phenolic Compounds (QCLot: 2745630)							
ES1940165-002	Anonymous	EP075(SIM): Phenol	108-95-2	10 mg/kg	92.4	70.0	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	94.5	70.0	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	85.2	60.0	130
		EP075(SIM): 4-Chloro-3-methylphenol	59-50-7	10 mg/kg	92.7	70.0	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	73.4	20.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740963)							
ES1939690-002	BH01_0.5_191127	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	94.6	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	92.3	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740968)							
ES1939690-001	BH01_0.1_191127	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	87.6	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	94.5	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740972)							
ES1939690-045	BH10_2.5_1811 28	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	114	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	116	70.0	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2740976)							
ES1939690-086	MW20_0.5_191129	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	82.3	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	87.7	70.0	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2745630)							
ES1940165-002	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	101	70.0	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	91.4	70.0	130
EP075D: Nitrosamines (QCLot: 2740966)							
ES1939690-002	BH01_0.5_191127	EP075: N-Nitrosodi-n-propylamine	621-64-7	10 mg/kg	97.2	50.0	130
EP075E: Nitroaromatics and Ketones (QCLot: 2740966)							
ES1939690-002	BH01_0.5_191127	EP075: 2.4-Dinitrotoluene	121-14-2	10 mg/kg	107	40.0	130
EP075G: Chlorinated Hydrocarbons (QCLot: 2740966)							
ES1939690-002	BH01_0.5_191127	EP075: 1.4-Dichlorobenzene	106-46-7	10 mg/kg	102	60.0	130
		EP075: 1.2.4-Trichlorobenzene	120-82-1	10 mg/kg	86.6	50.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740962)							
ES1939690-002	BH01_0.5_191127	EP071: C10 - C14 Fraction	----	523 mg/kg	101	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	100	53.0	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	130	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740967)							
ES1939690-001	BH01_0.1_191127	EP071: C10 - C14 Fraction	----	523 mg/kg	92.0	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	80.5	53.0	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	71.9	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740971)							
ES1939690-045	BH10_2.5_1811 28	EP071: C10 - C14 Fraction	----	523 mg/kg	88.2	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	110	53.0	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	83.0	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2740975)							
ES1939690-086	MW20_0.5_191129	EP071: C10 - C14 Fraction	----	523 mg/kg	103	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	118	53.0	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	121	52.0	132
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743255)							
ES1939690-002	BH01_0.5_191127	EP080: C6 - C9 Fraction	----	32.5 mg/kg	123	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743261)							
ES1939690-001	BH01_0.1_191127	EP080: C6 - C9 Fraction	----	32.5 mg/kg	89.6	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743282)							
ES1939690-045	BH10_2.5_1811 28	EP080: C6 - C9 Fraction	----	32.5 mg/kg	102	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743766)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2743766) - continued							
ES1939690-086	MW20_0.5_191129	EP080: C6 - C9 Fraction	----	32.5 mg/kg	82.0	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2745629)							
ES1940165-002	Anonymous	EP071: C10 - C14 Fraction	----	523 mg/kg	106	73.0	137
		EP071: C15 - C28 Fraction	----	2319 mg/kg	102	53.0	131
		EP071: C29 - C36 Fraction	----	1714 mg/kg	124	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740962)							
ES1939690-002	BH01_0.5_191127	EP071: >C10 - C16 Fraction	----	860 mg/kg	102	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	108	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	116	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740967)							
ES1939690-001	BH01_0.1_191127	EP071: >C10 - C16 Fraction	----	860 mg/kg	94.1	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	74.1	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	58.9	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740971)							
ES1939690-045	BH10_2.5_1811 28	EP071: >C10 - C16 Fraction	----	860 mg/kg	94.4	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	77.0	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	55.2	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2740975)							
ES1939690-086	MW20_0.5_191129	EP071: >C10 - C16 Fraction	----	860 mg/kg	98.6	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	123	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	118	52.0	132
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743255)							
ES1939690-002	BH01_0.5_191127	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	108	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743261)							
ES1939690-001	BH01_0.1_191127	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	101	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743282)							
ES1939690-045	BH10_2.5_1811 28	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	99.8	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2743766)							
ES1939690-086	MW20_0.5_191129	EP080: C6 - C10 Fraction	C6_C10	37.5 mg/kg	# Not Determined	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2745629)							
ES1940165-002	Anonymous	EP071: >C10 - C16 Fraction	----	860 mg/kg	107	73.0	137
		EP071: >C16 - C34 Fraction	----	3223 mg/kg	108	53.0	131
		EP071: >C34 - C40 Fraction	----	1058 mg/kg	112	52.0	132
EP080: BTEXN (QCLot: 2743255)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP080: BTEXN (QCLot: 2743255) - continued							
ES1939690-002	BH01_0.5_191127	EP080: Benzene	71-43-2	2.5 mg/kg	85.0	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	97.5	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	97.0	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	94.8	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	98.4	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	112	70.0	130
EP080: BTEXN (QCLot: 2743261)							
ES1939690-001	BH01_0.1_191127	EP080: Benzene	71-43-2	2.5 mg/kg	90.0	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	90.8	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	82.1	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	83.7	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	83.0	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	86.8	70.0	130
EP080: BTEXN (QCLot: 2743282)							
ES1939690-045	BH10_2.5_1811 28	EP080: Benzene	71-43-2	2.5 mg/kg	96.9	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	92.8	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	94.1	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	95.7	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	95.7	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	102	70.0	130
EP080: BTEXN (QCLot: 2743766)							
ES1939690-086	MW20_0.5_191129	EP080: Benzene	71-43-2	2.5 mg/kg	84.9	70.0	130
		EP080: Toluene	108-88-3	2.5 mg/kg	83.3	70.0	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	89.2	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2.5 mg/kg	90.2	70.0	130
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	91.5	70.0	130
		EP080: Naphthalene	91-20-3	2.5 mg/kg	92.5	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2745834)							
ES1939690-104	QC301_191128	EG020A-F: Arsenic	7440-38-2	1 mg/L	125	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	97.2	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	98.3	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EG020F: Dissolved Metals by ICP-MS (QCLot: 2745834) - continued							
ES1939690-104	QC301_191128	EG020A-F: Copper	7440-50-8	1 mg/L	128	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	93.8	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	126	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	128	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 2745833)							
EP1912646-001	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	80.6	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2741064)							
ES1939796-004	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	87.8	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2741064)							
ES1939796-004	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	86.6	70.0	130
EP080: BTEXN (QCLot: 2741064)							
ES1939796-004	Anonymous	EP080: Benzene	71-43-2	25 µg/L	91.9	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	85.8	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	89.1	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	89.3	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	91.5	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	93.4	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES1939690**	Page	: 1 of 39
Amendment	: **2**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 27-Nov-2019
Site	: ----	Issue Date	: 07-Feb-2020
Sampler	: Lachlan Lewis	No. of samples received	: 109
Order number	: J190730	No. of samples analysed	: 77

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Duplicate outliers exist - please see following pages for full details.**
- **Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005(ED093)T: Total Metals by ICP-AES	ES1939690--030	BH07_1.1_191127	**Lead**	7439-92-1	114 %	0% - 50%	**RPD exceeds LOR based limits**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2	ES1939690--086	MW20_0.5_191129	**C6 - C10 Fraction**	C6_C10	165 %	0% - 50%	**RPD exceeds LOR based limits**

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP075(SIM)T: PAH Surrogates	ES1939690-058	BH13_2.5_191128	**2-Fluorobiphenyl**	321-60-8	124 %	70.0-122 %	**Recovery greater than upper data quality objective**
EP075(SIM)T: PAH Surrogates	ES1939690-076	BH18_0.1_191129	**2-Fluorobiphenyl**	321-60-8	124 %	70.0-122 %	**Recovery greater than upper data quality objective**
EP075T: Base/Neutral Extractable Surrogates	ES1939690-068	BH16_0.9_191128	**Nitrobenzene-D5**	4165-60-0	129 %	33.0-125 %	**Recovery greater than upper data quality objective**
EP075T: Base/Neutral Extractable Surrogates	ES1939690-081	BH19_0.5_191129	**Nitrobenzene-D5**	4165-60-0	131 %	33.0-125 %	**Recovery greater than upper data quality objective**
EP075T: Base/Neutral Extractable Surrogates	ES1939690-020	BH05_0.9_191127	**2-Fluorobiphenyl**	321-60-8	130 %	35.0-121 %	**Recovery greater than upper data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-090	MW20_4.0_191129	**1.2-Dichloroethane-D4**	17060-07-0	70.0 %	72.8-133 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-092	MW21_1.3_191129	**1.2-Dichloroethane-D4**	17060-07-0	72.0 %	72.8-133 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-096	BH15_1.5_191128	**1.2-Dichloroethane-D4**	17060-07-0	68.2 %	72.8-133 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-099	QC100_191127	**1.2-Dichloroethane-D4**	17060-07-0	65.0 %	72.8-133 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-026	BH06_2.2_191127	**1.2-Dichloroethane-D4**	17060-07-0	64.5 %	72.8-133 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-102	QC103_191129	**1.2-Dichloroethane-D4**	17060-07-0	70.0 %	72.8-133 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-088	MW20_1.8_191129	**Toluene-D8**	2037-26-5	72.8 %	73.9-132 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-090	MW20_4.0_191129	**Toluene-D8**	2037-26-5	72.2 %	73.9-132 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-092	MW21_1.3_191129	**Toluene-D8**	2037-26-5	67.7 %	73.9-132 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-096	BH15_1.5_191128	**Toluene-D8**	2037-26-5	68.3 %	73.9-132 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-099	QC100_191127	**Toluene-D8**	2037-26-5	66.4 %	73.9-132 %	**Recovery less than lower data quality objective**

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted - Continued							
EP080S: TPH(V)/BTEX Surrogates	ES1939690-026	BH06_2.2_191127	**Toluene-D8**	2037-26-5	63.4 %	73.9-132 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-102	QC103_191129	**Toluene-D8**	2037-26-5	70.0 %	73.9-132 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-092	MW21_1.3_191129	**4-Bromofluorobenzene**	460-00-4	69.4 %	71.6-130 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-096	BH15_1.5_191128	**4-Bromofluorobenzene**	460-00-4	68.6 %	71.6-130 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-099	QC100_191127	**4-Bromofluorobenzene**	460-00-4	70.3 %	71.6-130 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-026	BH06_2.2_191127	**4-Bromofluorobenzene**	460-00-4	70.3 %	71.6-130 %	**Recovery less than lower data quality objective**
EP080S: TPH(V)/BTEX Surrogates	ES1939690-102	QC103_191129	**4-Bromofluorobenzene**	460-00-4	67.2 %	71.6-130 %	**Recovery less than lower data quality objective**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
TRH - Semivolatile Fraction	0	8	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
TRH - Semivolatile Fraction	0	8	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method	***Sample Date***	*Extraction / Preparation*			*Analysis*		
Container / *Client Sample ID(s)*		***Date extracted***	*Due for extraction*	*Evaluation*	***Date analysed***	*Due for analysis*	*Evaluation*

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-A: pH Measurements							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-B: Acidity Trail							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-C: Sulfur Trail							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-D: Calcium Values							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-E: Magnesium Values							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-F: Excess Acid Neutralising Capacity							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-G: Retained Acidity							
Snap Lock Bag - frozen (EA029)							
BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029)							
MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA029-H: Acid Base Accounting							
Snap Lock Bag - frozen (EA029) BH01_0.5_191127, BH01_2.5_191127, BH02_2.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_1.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH07_0.9_191127, BH07_1.1_191127, BH09_1.0_191127	**27-Nov-2019**	**09-Dec-2019**	22-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029) BH05_0.9_191127, BH08_0.5_191127	**27-Nov-2019**	**11-Dec-2019**	22-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029) BH10_2.5_1811 28, MW11_3.5_1811 28, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_1.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH15_1.5_191128	**28-Nov-2019**	**09-Dec-2019**	23-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029) BH14_0.3_ 191128, BH17_0.5_191128	**28-Nov-2019**	**11-Dec-2019**	23-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
Snap Lock Bag - frozen (EA029) BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_4.0_191129, MW21_4.4_191129, BH02_0.9	**29-Nov-2019**	**09-Dec-2019**	24-Aug-2022	✓	**09-Dec-2019**	08-Mar-2020	✓
Snap Lock Bag - frozen (EA029) MW20_1.8_191129	**29-Nov-2019**	**11-Dec-2019**	24-Aug-2022	✓	**11-Dec-2019**	10-Mar-2020	✓
EA055: Moisture Content							
Soil Glass Jar - Unpreserved (EA055) QC100_191127, QC101_191127	**27-Nov-2019**	**----**	----	----	**05-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EA055) QC102_191129, QC103_191129	**29-Nov-2019**	**----**	----	----	**05-Dec-2019**	13-Dec-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
Soil Glass Jar - Unpreserved (EA055)							
BH01_0.1_191127, BH01_0.5_191127, BH01_2.5_191127, BH02_0.1_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_0.1_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_0.9_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_0.9_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_1.1_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127	27-Nov-2019	----	----	----	05-Dec-2019	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EA055)							
BH10_ 0.1_181128, BH10_1.0_181128, BH10_2.5_1811 28, MW11_0.5_191128, MW11_3.5_1811 28, MW11_5.0_181128, BH12_0.1_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_0.3_ 191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_0.9_191128, BH16_1.7_191128, BH17_0.1_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	28-Nov-2019	----	----	----	05-Dec-2019	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EA055)							
BH18_0.1_191129, BH18_0.5_191129, BH18_2.8_191129, BH19_0.5_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_0.3_191129, MW21_1.3_191129, MW21_4.4_191129	29-Nov-2019	----	----	----	05-Dec-2019	13-Dec-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA200: AS 4964 - 2004 Identification of Asbestos in Soils							
Snap Lock Bag: Separate bag received (EA200)							
BH01_0.1_191127, BH01_1.0_191127, BH02_0.1_191127, BH02_0.5_191127, BH03_0.5_191127, BH04_0.1_191127, BH04_0.5_191127, BH05_0.1_191127, BH05_0.9_191127, BH06_0.1_191127, BH06_0.5_191127, BH07_0.1_191127, BH08_0.5_191127, BH08_1.1_191127, BH09_0.5_191127, BH09_0.1_191127	**27-Nov-2019**	**----**	----	----	**05-Dec-2019**	25-May-2020	✓
Snap Lock Bag: Separate bag received (EA200)							
BH10_ 0.1_181128, BH10_1.0_181128, MW11_0.5_191128, BH12_0.1_181128, BH13_0.5_191128, BH14_0.3_ 191128, BH14_1.0_191128, BH15_0.2_181128, BH16_0.1_191128, BH16_0.9_191128, BH17_0.1_191128, BH17_0.5_191128, BH13_0.3_191128	**28-Nov-2019**	**----**	----	----	**05-Dec-2019**	26-May-2020	✓
Snap Lock Bag: Separate bag received (EA200)							
BH18_0.1_191129, BH18_0.5_191129, BH19_0.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW21_0.3_191129, MW21_1.3_191129	**29-Nov-2019**	**----**	----	----	**05-Dec-2019**	27-May-2020	✓
EA200N: Asbestos Quantification (non-NATA)							
Snap Lock Bag: Separate bag received (EA200N)							
BH02_0.1_191127, BH05_0.9_191127, BH06_0.1_191127, BH07_0.1_191127, BH08_1.1_191127	**27-Nov-2019**	**----**	----	----	**05-Dec-2019**	25-May-2020	✓
Snap Lock Bag: Separate bag received (EA200N)							
BH10_1.0_181128, MW11_0.5_191128, BH12_0.1_181128, BH13_0.5_191128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**----**	----	----	**05-Dec-2019**	26-May-2020	✓
Snap Lock Bag: Separate bag received (EA200N)							
BH18_0.1_191129, MW20_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**----**	----	----	**05-Dec-2019**	27-May-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved (EG005T)							
BH01_0.1_191127, BH01_0.5_191127, BH01_2.5_191127, BH02_0.1_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_0.1_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_0.9_191127, QC100_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_0.9_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_1.1_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127, QC101_191127	**27-Nov-2019**	**05-Dec-2019**	25-May-2020	✓	**05-Dec-2019**	25-May-2020	✓
Soil Glass Jar - Unpreserved (EG005T)							
BH10_ 0.1_181128, BH10_1.0_181128, BH10_2.5_1811 28, MW11_0.5_191128, MW11_3.5_1811 28, MW11_5.0_181128, BH12_0.1_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_0.3_ 191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_0.9_191128, BH16_1.7_191128, BH17_0.1_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	26-May-2020	✓	**05-Dec-2019**	26-May-2020	✓
Soil Glass Jar - Unpreserved (EG005T)							
BH18_0.1_191129, BH18_0.5_191129, BH18_2.8_191129, BH19_0.5_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_0.3_191129, MW21_1.3_191129, MW21_4.4_191129, QC102_191129, QC103_191129	**29-Nov-2019**	**05-Dec-2019**	27-May-2020	✓	**05-Dec-2019**	27-May-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved (EG035T)							
BH01_0.1_191127, BH01_0.5_191127, BH01_2.5_191127, BH02_0.1_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_0.1_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_0.9_191127, QC100_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_0.9_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_1.1_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127, QC101_191127	**27-Nov-2019**	**05-Dec-2019**	25-Dec-2019	✓	**06-Dec-2019**	25-Dec-2019	✓
Soil Glass Jar - Unpreserved (EG035T)							
BH10_ 0.1_181128, BH10_1.0_181128, BH10_2.5_1811 28, MW11_0.5_191128, MW11_3.5_1811 28, MW11_5.0_181128, BH12_0.1_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_0.3_ 191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_0.9_191128, BH16_1.7_191128, BH17_0.1_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	26-Dec-2019	✓	**06-Dec-2019**	26-Dec-2019	✓
Soil Glass Jar - Unpreserved (EG035T)							
BH18_0.1_191129, BH18_0.5_191129, BH18_2.8_191129, BH19_0.5_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_0.3_191129, MW21_1.3_191129, MW21_4.4_191129, QC102_191129, QC103_191129	**29-Nov-2019**	**05-Dec-2019**	27-Dec-2019	✓	**06-Dec-2019**	27-Dec-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved (EP066) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH09_0.1_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**07-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH10_2.5_1811 28, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH10_ 0.1_181128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**07-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP066) BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved (EP068) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH09_0.1_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**09-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH10_2.5_1811 28, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH10_ 0.1_181128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**09-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved (EP068) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH09_0.1_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**09-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH10_2.5_1811 28, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH10_ 0.1_181128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**09-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP068) BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP074) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓
EP074B: Oxygenated Compounds							
Soil Glass Jar - Unpreserved (EP074) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓
EP074C: Sulfonated Compounds							
Soil Glass Jar - Unpreserved (EP074) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074D: Fumigants							
Soil Glass Jar - Unpreserved (EP074) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓
EP074E: Halogenated Aliphatic Compounds							
Soil Glass Jar - Unpreserved (EP074) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓
EP074F: Halogenated Aromatic Compounds							
Soil Glass Jar - Unpreserved (EP074) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074G: Trihalomethanes							
Soil Glass Jar - Unpreserved (EP074)							
BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**04-Dec-2019**	04-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074)							
BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**04-Dec-2019**	05-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP074)							
BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**04-Dec-2019**	06-Dec-2019	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH10_ 0.1_181128, BH10_2.5_1811 28, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH10_ 0.1_181128, BH10_2.5_1811 28, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128, BH17_2.5_191128, BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075(SIM))							
BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
EP075C: Phthalate Esters							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
EP075D: Nitrosamines							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075E: Nitroaromatics and Ketones							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
EP075F: Haloethers							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
EP075G: Chlorinated Hydrocarbons							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075H: Anilines and Benzidines							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
EP075I: Organochlorine Pesticides							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
EP075J: Organophosphorus Pesticides							
Soil Glass Jar - Unpreserved (EP075) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP075) BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved (EP080) TB_191128, TB_191129	**26-Nov-2019**	**04-Dec-2019**	10-Dec-2019	✓	**06-Dec-2019**	10-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**04-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) BH01_0.1_191127, BH01_0.5_191127, BH01_2.5_191127, BH02_0.1_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_0.1_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_0.9_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_0.9_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_1.1_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) BH09_0.1_191127, TS_191127, Trip Spike Control, QC100_191127, QC101_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071) BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, QC100_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127, QC101_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP080) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**04-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons - Continued								
BH10_ 0.1_181128, BH10_2.5_1811 28, MW11_3.5_1811 28, BH12_0.1_181128, BH12_2.5_191128, BH13_1.5_191128, BH14_0.3_ 191128, BH14_3.0_191128, BH15_2.5_191128, BH16_0.9_191128, BH17_0.1_191128, BH17_2.5_191128	BH10_1.0_181128, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH13_0.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH15_0.2_181128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128,	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)								
BH15_1.5_191128,	BH13_0.3_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071)								
BH10_ 0.1_181128, MW11_0.5_191128, BH12_1.5_191128, BH13_0.5_191128, BH13_2.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH13_0.3_191128	BH10_2.5_1811 28, MW11_5.0_181128, BH12_2.5_191128, BH13_1.5_191128, BH14_1.0_191128, BH15_0.2_181128, BH16_0.1_191128, BH17_0.5_191128, BH15_1.5_191128,	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP080)								
BH18_0.1_191129, MW21_0.3_191129	BH19_0.5_191129,	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**04-Dec-2019**	13-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071)								
BH18_0.1_191129, BH18_2.8_191129, BH19_1.5_191129, MW21_0.3_191129	BH18_0.5_191129, BH19_0.5_191129, BH19_2.5_191129,	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP080)								
MW20_0.5_191129, MW20_4.0_191129, MW21_4.4_191129, QC103_191129	MW20_1.8_191129, MW21_1.3_191129, QC102_191129,	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071)								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Petroleum Hydrocarbons - Continued							
BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129, QC102_191129, QC103_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Soil Glass Jar - Unpreserved (EP080) TB_191128, TB_191129	**26-Nov-2019**	**04-Dec-2019**	10-Dec-2019	✓	**06-Dec-2019**	10-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**04-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) BH01_0.1_191127, BH01_0.5_191127, BH01_2.5_191127, BH02_0.1_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_1.5_191127, BH03_2.5_191127, BH04_0.1_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_0.9_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_0.9_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_1.1_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) BH09_0.1_191127, TS_191127, Trip Spike Control, QC100_191127, QC101_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071) BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, QC100_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127, BH09_0.1_191127, QC101_191127	**27-Nov-2019**	**05-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP080) BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**04-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued								
BH10_ 0.1_181128, BH10_2.5_1811 28, MW11_3.5_1811 28, BH12_0.1_181128, BH12_2.5_191128, BH13_1.5_191128, BH14_0.3_ 191128, BH14_3.0_191128, BH15_2.5_191128, BH16_0.9_191128, BH17_0.1_191128, BH17_2.5_191128	BH10_1.0_181128, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH13_0.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH15_0.2_181128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128,	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)								
BH15_1.5_191128,	BH13_0.3_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071)								
BH10_ 0.1_181128, MW11_0.5_191128, BH12_1.5_191128, BH13_0.5_191128, BH13_2.5_191128, BH14_3.0_191128, BH15_2.5_191128, BH16_1.7_191128, BH17_2.5_191128, BH13_0.3_191128	BH10_2.5_1811 28, MW11_5.0_181128, BH12_2.5_191128, BH13_1.5_191128, BH14_1.0_191128, BH15_0.2_181128, BH16_0.1_191128, BH17_0.5_191128, BH15_1.5_191128,	**28-Nov-2019**	**05-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP080)								
BH18_0.1_191129, MW21_0.3_191129	BH19_0.5_191129,	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**04-Dec-2019**	13-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071)								
BH18_0.1_191129, BH18_2.8_191129, BH19_1.5_191129, MW21_0.3_191129	BH18_0.5_191129, BH19_0.5_191129, BH19_2.5_191129,	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Jan-2020	✓
Soil Glass Jar - Unpreserved (EP080)								
MW20_0.5_191129, MW20_4.0_191129, MW21_4.4_191129, QC103_191129	MW20_1.8_191129, MW21_1.3_191129, QC102_191129,	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP071)								

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued							
BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129, MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129, QC102_191129, QC103_191129	**29-Nov-2019**	**05-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	14-Jan-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN							
Soil Glass Jar - Unpreserved (EP080)							
TB_191128, TB_191129	**26-Nov-2019**	**04-Dec-2019**	10-Dec-2019	✓	**06-Dec-2019**	10-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH01_0.5_191127, BH02_0.1_191127, BH03_1.5_191127, BH04_0.1_191127, BH05_0.9_191127, BH07_0.9_191127, BH08_1.1_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**04-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH01_0.1_191127, BH01_2.5_191127, BH02_0.5_191127, BH02_2.5_191127, BH03_0.5_191127, BH03_2.5_191127, BH04_0.5_191127, BH04_1.5_191127, BH05_0.1_191127, BH05_1.2_191127, BH06_0.1_191127, BH06_0.5_191127, BH06_2.2_191127, BH07_0.1_191127, BH07_1.1_191127, BH08_0.5_191127, BH08_2.0_191127, BH09_0.5_191127, BH09_1.0_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**05-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH09_0.1_191127, TS_191127, Trip Spike Control, QC100_191127, QC101_191127	**27-Nov-2019**	**04-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	11-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH10_1.0_181128, MW11_3.5_1811 28, BH12_0.1_181128, BH14_0.3_ 191128, BH16_0.9_191128, BH17_0.1_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**04-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH10_ 0.1_181128, BH10_2.5_1811 28, MW11_0.5_191128, MW11_5.0_181128, BH12_1.5_191128, BH12_2.5_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_1.0_191128, BH14_3.0_191128, BH15_0.2_181128, BH15_2.5_191128, BH16_0.1_191128, BH16_1.7_191128, BH17_0.5_191128, BH17_2.5_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**05-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH15_1.5_191128, BH13_0.3_191128	**28-Nov-2019**	**04-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	12-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							
BH18_0.1_191129, BH19_0.5_191129, MW21_0.3_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**04-Dec-2019**	13-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080)							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080: BTEXN - Continued							
BH18_0.5_191129, BH18_2.8_191129, BH19_1.5_191129, BH19_2.5_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**05-Dec-2019**	13-Dec-2019	✓
Soil Glass Jar - Unpreserved (EP080) MW20_0.5_191129, MW20_1.8_191129, MW20_4.0_191129, MW21_1.3_191129, MW21_4.4_191129, QC102_191129, QC103_191129	**29-Nov-2019**	**04-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Dec-2019	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F) QC300_191127	**27-Nov-2019**	**----**	----	----	**05-Dec-2019**	25-May-2020	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F) QC301_191128	**28-Nov-2019**	**----**	----	----	**05-Dec-2019**	26-May-2020	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F) QC302_191129	**29-Nov-2019**	**----**	----	----	**05-Dec-2019**	27-May-2020	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F) QC300_191127	**27-Nov-2019**	**----**	----	----	**06-Dec-2019**	25-Dec-2019	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F) QC301_191128	**28-Nov-2019**	**----**	----	----	**06-Dec-2019**	26-Dec-2019	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F) QC302_191129	**29-Nov-2019**	**----**	----	----	**06-Dec-2019**	27-Dec-2019	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) QC300_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Amber Glass Bottle - Unpreserved (EP071) QC301_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Amber Glass Bottle - Unpreserved (EP071) QC302_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC300_191127	**27-Nov-2019**	**06-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	11-Dec-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC301_191128	**28-Nov-2019**	**06-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	12-Dec-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC302_191129	**29-Nov-2019**	**06-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Dec-2019	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) QC300_191127	**27-Nov-2019**	**04-Dec-2019**	04-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Amber Glass Bottle - Unpreserved (EP071) QC301_191128	**28-Nov-2019**	**04-Dec-2019**	05-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Amber Glass Bottle - Unpreserved (EP071) QC302_191129	**29-Nov-2019**	**04-Dec-2019**	06-Dec-2019	✓	**06-Dec-2019**	13-Jan-2020	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC300_191127	**27-Nov-2019**	**06-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	11-Dec-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC301_191128	**28-Nov-2019**	**06-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	12-Dec-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC302_191129	**29-Nov-2019**	**06-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Dec-2019	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) QC300_191127	**27-Nov-2019**	**06-Dec-2019**	11-Dec-2019	✓	**06-Dec-2019**	11-Dec-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC301_191128	**28-Nov-2019**	**06-Dec-2019**	12-Dec-2019	✓	**06-Dec-2019**	12-Dec-2019	✓
Amber VOC Vial - Sulfuric Acid (EP080) QC302_191129	**29-Nov-2019**	**06-Dec-2019**	13-Dec-2019	✓	**06-Dec-2019**	13-Dec-2019	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	7	68	**10.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	8	70	**11.43**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	8	68	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	8	68	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	5	41	**12.20**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	7	68	**10.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	7	68	**10.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	9	74	**12.16**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	8	72	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	5	70	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	5	68	**7.35**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	5	68	**7.35**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	3	41	**7.32**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	68	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	68	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	5	74	**6.76**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	72	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	5	70	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	5	68	**7.35**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	5	68	**7.35**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	3	41	**7.32**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	68	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	68	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	5	74	**6.76**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	72	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	5	70	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Pesticides by GCMS	EP068	5	68	7.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Polychlorinated Biphenyls (PCB)	EP066	5	68	7.35	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	4	68	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	4	68	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	5	74	6.76	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	4	72	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	8	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	8	0.00	5.00	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Suspension Peroxide Oxidation-Combined Acidity and Sulphate	EA029	SOIL	In house: Referenced to Ahern et al 2004 - a suspension peroxide oxidation method following the 'sulfur trail' by determining the level of 1M KCL extractable sulfur and the sulfur level after oxidation of soil sulphides. The 'acidity trail' is followed by measurement of TAA, TPA and TSA. Liming Rate is based on results for samples as submitted and incorporates a minimum safety factor of 1.5.
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM (2013) Schedule B(3) Section 6.1 and Table 1 (14 day holding time).
Asbestos Identification in Soils	EA200	SOIL	AS 4964 - 2004 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Asbestos Classification and Quantitation per NEPM 2013	* EA200N	SOIL	Asbestos Classification and Quantitation per NEPM 2013 with Confirmation of Identification by AS 4964 - 2004 Gravimetric determination of Asbestos Containing Material, Fibrous Asbestos, Asbestos Fines and sample weight and calculation of percentage concentrations per NEPM protocols. Asbestos (Fines and Fibrous FA+AF) is reported as the equivalent weight in the sample received after accounting for sub-sampling (where applicable for the <7mm and/or <2mm fractions).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (2013) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Polychlorinated Biphenyls (PCB)	EP066	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (2013) Schedule B(3) (Method 504,505)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015A Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM amended 2013.
Volatile Organic Compounds	EP074	SOIL	In house: Referenced to USEPA SW 846 - 8260B Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 501)
Semivolatile Organic Compounds	EP075	SOIL	In house: Referenced to USEPA SW 846 - 8270D Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (2013) Schedule B(3) (Method 502)

Analytical Methods	Method	Matrix	Method Descriptions
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270D. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3) (Method 502 and 507)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260B. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM amended 2013.
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Drying at 85 degrees, bagging and labelling (ASS)	EN020PR	SOIL	In house
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (2013) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510B 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (2013) Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for sparging.

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☒ Standard or non urgent TAT (List due date): (Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065			Custody Seal Intact? Yes No (N/A)
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? (Yes) No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: 2.4 °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	Sep - ALS Crows Nest
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au, emmconsulting@esdat.net		DATE/TIME: *18/12/19 1630*	DATE/TIME: 18/12/19 1650
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY: JUSTIN
		DATE/TIME:	DATE/TIME: 18/12/19 7pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/8 Metals (w-26)	Asbestos A/P	VOC/SVOC	TRH, BTEXN, 8 metals (w-5)	TRH/BTEXN (w-18)			HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	MW11_191218	18/12/2019	W			X		X						
2	MW20_191218	18/12/2019	W			X		X						
3	MW21_191218	18/12/2019	W			X		X						
4	QC104_191218	18/12/2019	W						X					
*****	QC204_191218	18/12/2019	W						X					Please forward to Envirolab
5	QC304_191218	18/12/2019	W						X					
6	TB_191218	18/12/2019	W							X				

Environmental Division
Sydney
Work Order Reference
ES1942135

Telephone : +61-2-8784 8555

Subcon / Forward Laby Split WO
Lab / Analysis: ENVIROLAB
Organised By / Date: Q204
Relinquished By / Date:
Connote / Courier:
WO No:
Attached By PO / Internal Sheet:

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES1942135**

Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Contact	: Shane Colley
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: adavis@emmconsulting.com.au	E-mail	: ALSEnviro.Sydney@ALSGlobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: LAHC Redfern	Page	: 1 of 2
Order number	: J190730	Quote number	: ES2019EMGAMM0009 (SY/609/19)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: Lochlan Lewis		

Dates

Date Samples Received	: 18-Dec-2019 16:50	Issue Date	: 18-Dec-2019
Client Requested Due Date	: 30-Dec-2019	Scheduled Reporting Date	: **30-Dec-2019**

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 2.4'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 6 / 6

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **QC204 forward to Envirolab.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Client sampling date / time	Client sample ID	WATER - W-05 TRH/BTEXN/8 Metals	WATER - W-18 TRH(C6 - C9)/BTEXN	WATER - W-23 SVOC/VOC	WATER - W-26 TRH/BTEXN/PAH/8 Metals
ES1942135-001	18-Dec-2019 00:00	MW11_191218			✓	✓
ES1942135-002	18-Dec-2019 00:00	MW20_191218			✓	✓
ES1942135-003	18-Dec-2019 00:00	MW21_191218			✓	✓
ES1942135-004	18-Dec-2019 00:00	QC104_191218	✓			
ES1942135-005	18-Dec-2019 00:00	QC304_191218	✓			
ES1942135-006	18-Dec-2019 00:00	TB_191218		✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

A Davis

- *AU Certificate of Analysis - NATA (COA)	Email	adavis@emmconsulting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	adavis@emmconsulting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	adavis@emmconsulting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	adavis@emmconsulting.com.au
- A4 - AU Tax Invoice (INV)	Email	adavis@emmconsulting.com.au
- Chain of Custody (CoC) (COC)	Email	adavis@emmconsulting.com.au

ALL ESDAT REPORTS

- A4 - AU Tax Invoice (INV)	Email	emmconsulting@esdat.net
- EDI Format - ESDAT (ESDAT)	Email	emmconsulting@esdat.net

ALL INVOICES

- A4 - AU Tax Invoice (INV)	Email	finance@emmconsulting.com.au

Lachlan Lewis

- *AU Certificate of Analysis - NATA (COA)	Email	llewis@emmconsulting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	llewis@emmconsulting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	llewis@emmconsulting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	llewis@emmconsulting.com.au
- A4 - AU Tax Invoice (INV)	Email	llewis@emmconsulting.com.au
- Chain of Custody (CoC) (COC)	Email	llewis@emmconsulting.com.au

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1942135**	Page	: 1 of 13
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Contact	: Shane Colley
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 18-Dec-2019 16:50
Order number	: J190730	Date Analysis Commenced	: 19-Dec-2019
C-O-C number	: ----	Issue Date	: 30-Dec-2019 13:09
Sampler	: Lochlan Lewis		
Site	: ----		
Quote number	: SY/609/19		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

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

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- EG020: Copper and Lead results for samples ES1942135 #005 confirmed by reanalysis.
- EP075: 'Sum of PAH' is the sum of the USEPA 16 priority PAHs

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	**0.010**	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L		<0.001	**0.002**	**0.002**	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L		**0.001**	**0.002**	<0.001	<0.001	**0.002**
Lead	7439-92-1	0.001	mg/L		**0.001**	**0.003**	**0.002**	<0.001	**0.003**
Nickel	7440-02-0	0.001	mg/L		<0.001	**0.002**	**0.001**	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L		**0.008**	**0.017**	**0.006**	<0.005	<0.005
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EP074A: Monocyclic Aromatic Hydrocarbons									
Benzene	71-43-2	1	µg/L		<1	<1	<1	----	----
Toluene	108-88-3	2	µg/L		<2	<2	<2	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	<2	<2	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	----	----
Styrene	100-42-5	5	µg/L		<5	<5	<5	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	----	----
Isopropylbenzene	98-82-8	5	µg/L		<5	<5	<5	----	----
n-Propylbenzene	103-65-1	5	µg/L		<5	<5	<5	----	----
1.3.5-Trimethylbenzene	108-67-8	5	µg/L		<5	<5	<5	----	----
sec-Butylbenzene	135-98-8	5	µg/L		<5	<5	<5	----	----
1.2.4-Trimethylbenzene	95-63-6	5	µg/L		<5	<5	<5	----	----
tert-Butylbenzene	98-06-6	5	µg/L		<5	<5	<5	----	----
p-Isopropyltoluene	99-87-6	5	µg/L		<5	<5	<5	----	----
n-Butylbenzene	104-51-8	5	µg/L		<5	<5	<5	----	----
EP074B: Oxygenated Compounds									
Vinyl Acetate	108-05-4	50	µg/L		<50	<50	<50	----	----
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50	----	----
4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L		<50	<50	<50	----	----
2-Hexanone (MBK)	591-78-6	50	µg/L		<50	<50	<50	----	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	5	µg/L		<5	<5	<5	----	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	5	µg/L		<5	<5	<5	----	----
1.2-Dichloropropane	78-87-5	5	µg/L		<5	<5	<5	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP074D: Fumigants - Continued									
cis-1.3-Dichloropropylene	10061-01-5	5	µg/L		<5	<5	<5	----	----
trans-1.3-Dichloropropylene	10061-02-6	5	µg/L		<5	<5	<5	----	----
1.2-Dibromoethane (EDB)	106-93-4	5	µg/L		<5	<5	<5	----	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	50	µg/L		<50	<50	<50	----	----
Chloromethane	74-87-3	50	µg/L		<50	<50	<50	----	----
Vinyl chloride	75-01-4	50	µg/L		<50	<50	<50	----	----
Bromomethane	74-83-9	50	µg/L		<50	<50	<50	----	----
Chloroethane	75-00-3	50	µg/L		<50	<50	<50	----	----
Trichlorofluoromethane	75-69-4	50	µg/L		<50	<50	<50	----	----
1.1-Dichloroethene	75-35-4	5	µg/L		<5	<5	<5	----	----
Iodomethane	74-88-4	5	µg/L		<5	<5	<5	----	----
trans-1.2-Dichloroethene	156-60-5	5	µg/L		<5	<5	<5	----	----
1.1-Dichloroethane	75-34-3	5	µg/L		<5	<5	<5	----	----
cis-1.2-Dichloroethene	156-59-2	5	µg/L		<5	<5	<5	----	----
1.1.1-Trichloroethane	71-55-6	5	µg/L		<5	<5	<5	----	----
1.1-Dichloropropylene	563-58-6	5	µg/L		<5	<5	<5	----	----
Carbon Tetrachloride	56-23-5	5	µg/L		<5	<5	<5	----	----
1.2-Dichloroethane	107-06-2	5	µg/L		<5	<5	<5	----	----
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	----	----
Dibromomethane	74-95-3	5	µg/L		<5	<5	<5	----	----
1.1.2-Trichloroethane	79-00-5	5	µg/L		<5	<5	<5	----	----
1.3-Dichloropropane	142-28-9	5	µg/L		<5	<5	<5	----	----
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	----	----
1.1.1.2-Tetrachloroethane	630-20-6	5	µg/L		<5	<5	<5	----	----
trans-1.4-Dichloro-2-butene	110-57-6	5	µg/L		<5	<5	<5	----	----
cis-1.4-Dichloro-2-butene	1476-11-5	5	µg/L		<5	<5	<5	----	----
1.1.2.2-Tetrachloroethane	79-34-5	5	µg/L		<5	<5	<5	----	----
1.2.3-Trichloropropane	96-18-4	5	µg/L		<5	<5	<5	----	----
Pentachloroethane	76-01-7	5	µg/L		<5	<5	<5	----	----
1.2-Dibromo-3-chloropropane	96-12-8	5	µg/L		<5	<5	<5	----	----
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	5	µg/L		<5	<5	<5	----	----
Bromobenzene	108-86-1	5	µg/L		<5	<5	<5	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP074F: Halogenated Aromatic Compounds - Continued									
2-Chlorotoluene	95-49-8	5	µg/L		<5	<5	<5	----	----
4-Chlorotoluene	106-43-4	5	µg/L		<5	<5	<5	----	----
1.2.3-Trichlorobenzene	87-61-6	5	µg/L		<5	<5	<5	----	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	----	----
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	----	----
Dibromochloromethane	124-48-1	5	µg/L		<5	<5	<5	----	----
Bromoform	75-25-2	5	µg/L		<5	<5	<5	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benz(a)anthracene	56-55-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Chrysene	218-01-9	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<0.5	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L		<1.0	<1.0	<1.0	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L		<0.5	<0.5	<0.5	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L		<0.5	<0.5	<0.5	----	----
EP075A: Phenolic Compounds									
Phenol	108-95-2	2	µg/L		<2	<2	<2	----	----
2-Chlorophenol	95-57-8	2	µg/L		<2	<2	<2	----	----
2-Methylphenol	95-48-7	2	µg/L		<2	<2	<2	----	----
3- & 4-Methylphenol	1319-77-3	4	µg/L		<4	<4	<4	----	----
2-Nitrophenol	88-75-5	2	µg/L		<2	<2	<2	----	----
2.4-Dimethylphenol	105-67-9	2	µg/L		<2	<2	<2	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP075A: Phenolic Compounds - Continued									
2.4-Dichlorophenol	120-83-2	2	µg/L		<2	<2	<2	----	----
2.6-Dichlorophenol	87-65-0	2	µg/L		<2	<2	<2	----	----
4-Chloro-3-methylphenol	59-50-7	2	µg/L		<2	<2	<2	----	----
2.4.6-Trichlorophenol	88-06-2	2	µg/L		<2	<2	<2	----	----
2.4.5-Trichlorophenol	95-95-4	2	µg/L		<2	<2	<2	----	----
Pentachlorophenol	87-86-5	4	µg/L		<4	<4	<4	----	----
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	2	µg/L		<2	<2	<2	----	----
2-Methylnaphthalene	91-57-6	2	µg/L		<2	<2	<2	----	----
2-Chloronaphthalene	91-58-7	2	µg/L		<2	<2	<2	----	----
Acenaphthylene	208-96-8	2	µg/L		<2	<2	<2	----	----
Acenaphthene	83-32-9	2	µg/L		<2	<2	<2	----	----
Fluorene	86-73-7	2	µg/L		<2	<2	<2	----	----
Phenanthrene	85-01-8	2	µg/L		<2	<2	<2	----	----
Anthracene	120-12-7	2	µg/L		<2	<2	<2	----	----
Fluoranthene	206-44-0	2	µg/L		<2	<2	<2	----	----
Pyrene	129-00-0	2	µg/L		<2	<2	<2	----	----
N-2-Fluorenyl Acetamide	53-96-3	2	µg/L		<2	<2	<2	----	----
Benz(a)anthracene	56-55-3	2	µg/L		<2	<2	<2	----	----
Chrysene	218-01-9	2	µg/L		<2	<2	<2	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	2	µg/L		<2	<2	<2	----	----
Benzo(a)pyrene	50-32-8	2	µg/L		<2	<2	<2	----	----
3-Methylcholanthrene	56-49-5	2	µg/L		<2	<2	<2	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	<2	<2	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	<2	<2	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	<2	<2	----	----
^ Sum of PAHs	----	2	µg/L		<2	<2	<2	----	----
^ Benzo(a)pyrene TEQ (zero)	----	2	µg/L		<2	<2	<2	----	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	2	µg/L		<2	<2	<2	----	----
Diethyl phthalate	84-66-2	2	µg/L		<2	<2	<2	----	----
Di-n-butyl phthalate	84-74-2	2	µg/L		<2	<2	<2	----	----
Butyl benzyl phthalate	85-68-7	2	µg/L		<2	<2	<2	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP075C: Phthalate Esters - Continued									
bis(2-ethylhexyl) phthalate	117-81-7	10	µg/L		<10	<10	<10	----	----
Di-n-octylphthalate	117-84-0	2	µg/L		<2	<2	<2	----	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	2	µg/L		<2	<2	<2	----	----
N-Nitrosodiethylamine	55-18-5	2	µg/L		<2	<2	<2	----	----
N-Nitrosopyrrolidine	930-55-2	4	µg/L		<4	<4	<4	----	----
N-Nitrosomorpholine	59-89-2	2	µg/L		<2	<2	<2	----	----
N-Nitrosodi-n-propylamine	621-64-7	2	µg/L		<2	<2	<2	----	----
N-Nitrosopiperidine	100-75-4	2	µg/L		<2	<2	<2	----	----
N-Nitrosodibutylamine	924-16-3	2	µg/L		<2	<2	<2	----	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	4	µg/L		<4	<4	<4	----	----
Methapyrilene	91-80-5	2	µg/L		<2	<2	<2	----	----
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	2	µg/L		<2	<2	<2	----	----
Acetophenone	98-86-2	2	µg/L		<2	<2	<2	----	----
Nitrobenzene	98-95-3	2	µg/L		<2	<2	<2	----	----
Isophorone	78-59-1	2	µg/L		<2	<2	<2	----	----
2.6-Dinitrotoluene	606-20-2	4	µg/L		<4	<4	<4	----	----
2.4-Dinitrotoluene	121-14-2	4	µg/L		<4	<4	<4	----	----
1-Naphthylamine	134-32-7	2	µg/L		<2	<2	<2	----	----
4-Nitroquinoline-N-oxide	56-57-5	2	µg/L		<2	<2	<2	----	----
5-Nitro-o-toluidine	99-55-8	2	µg/L		<2	<2	<2	----	----
Azobenzene	103-33-3	2	µg/L		<2	<2	<2	----	----
1.3.5-Trinitrobenzene	99-35-4	2	µg/L		<2	<2	<2	----	----
Phenacetin	62-44-2	2	µg/L		<2	<2	<2	----	----
4-Aminobiphenyl	92-67-1	2	µg/L		<2	<2	<2	----	----
Pentachloronitrobenzene	82-68-8	2	µg/L		<2	<2	<2	----	----
Pronamide	23950-58-5	2	µg/L		<2	<2	<2	----	----
Dimethylaminoazobenzene	60-11-7	2	µg/L		<2	<2	<2	----	----
Chlorobenzilate	510-15-6	2	µg/L		<2	<2	<2	----	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	2	µg/L		<2	<2	<2	----	----
Bis(2-chloroethoxy) methane	111-91-1	2	µg/L		<2	<2	<2	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP075F: Haloethers - Continued									
4-Chlorophenyl phenyl ether	7005-72-3	2	µg/L		<2	<2	<2	----	----
4-Bromophenyl phenyl ether	101-55-3	2	µg/L		<2	<2	<2	----	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	2	µg/L		<2	<2	<2	----	----
1.4-Dichlorobenzene	106-46-7	2	µg/L		<2	<2	<2	----	----
1.2-Dichlorobenzene	95-50-1	2	µg/L		<2	<2	<2	----	----
Hexachloroethane	67-72-1	2	µg/L		<2	<2	<2	----	----
1.2.4-Trichlorobenzene	120-82-1	2	µg/L		<2	<2	<2	----	----
Hexachloropropylene	1888-71-7	2	µg/L		<2	<2	<2	----	----
Hexachlorobutadiene	87-68-3	2	µg/L		<2	<2	<2	----	----
Hexachlorocyclopentadiene	77-47-4	10	µg/L		<10	<10	<10	----	----
Pentachlorobenzene	608-93-5	2	µg/L		<2	<2	<2	----	----
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	----	----
EP075H: Anilines and Benzidines									
Aniline	62-53-3	2	µg/L		<2	<2	<2	----	----
4-Chloroaniline	106-47-8	2	µg/L		<2	<2	<2	----	----
2-Nitroaniline	88-74-4	4	µg/L		<4	<4	<4	----	----
3-Nitroaniline	99-09-2	4	µg/L		<4	<4	<4	----	----
Dibenzofuran	132-64-9	2	µg/L		<2	<2	<2	----	----
4-Nitroaniline	100-01-6	2	µg/L		<2	<2	<2	----	----
Carbazole	86-74-8	2	µg/L		<2	<2	<2	----	----
3.3`-Dichlorobenzidine	91-94-1	2	µg/L		<2	<2	<2	----	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	2	µg/L		<2	<2	<2	----	----
beta-BHC	319-85-7	2	µg/L		<2	<2	<2	----	----
gamma-BHC	58-89-9	2	µg/L		<2	<2	<2	----	----
delta-BHC	319-86-8	2	µg/L		<2	<2	<2	----	----
Heptachlor	76-44-8	2	µg/L		<2	<2	<2	----	----
Aldrin	309-00-2	2	µg/L		<2	<2	<2	----	----
Heptachlor epoxide	1024-57-3	2	µg/L		<2	<2	<2	----	----
alpha-Endosulfan	959-98-8	2	µg/L		<2	<2	<2	----	----
4.4`-DDE	72-55-9	2	µg/L		<2	<2	<2	----	----
Dieldrin	60-57-1	2	µg/L		<2	<2	<2	----	----
Endrin	72-20-8	2	µg/L		<2	<2	<2	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP075I: Organochlorine Pesticides - Continued									
beta-Endosulfan	33213-65-9	2	µg/L		<2	<2	<2	----	----
4.4`-DDD	72-54-8	2	µg/L		<2	<2	<2	----	----
Endosulfan sulfate	1031-07-8	2	µg/L		<2	<2	<2	----	----
4.4`-DDT	50-29-3	4	µg/L		<4	<4	<4	----	----
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	4	µg/L		<4	<4	<4	----	----
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	4	µg/L		<4	<4	<4	----	----
EP075J: Organophosphorus Pesticides									
Dichlorvos	62-73-7	2	µg/L		<2	<2	<2	----	----
Dimethoate	60-51-5	2	µg/L		<2	<2	<2	----	----
Diazinon	333-41-5	2	µg/L		<2	<2	<2	----	----
Chlorpyrifos-methyl	5598-13-0	2	µg/L		<2	<2	<2	----	----
Malathion	121-75-5	2	µg/L		<2	<2	<2	----	----
Fenthion	55-38-9	2	µg/L		<2	<2	<2	----	----
Chlorpyrifos	2921-88-2	2	µg/L		<2	<2	<2	----	----
Pirimphos-ethyl	23505-41-1	2	µg/L		<2	<2	<2	----	----
Chlorfenvinphos	470-90-6	2	µg/L		<2	<2	<2	----	----
Prothiofos	34643-46-4	2	µg/L		<2	<2	<2	----	----
Ethion	563-12-2	2	µg/L		<2	<2	<2	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L		<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L		<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L		<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L		<20	<20	<20	<20	<20
>C10 - C16 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L		<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L		<100	<100	<100	<100	<100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L		<100	<100	<100	<100	<100

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	<1	<1	<1	<1
Toluene	108-88-3	2	µg/L		<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L		<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L		<2	<2	<2	<2	<2
^ Total Xylenes	----	2	µg/L		<2	<2	<2	<2	<2
^ Sum of BTEX	----	1	µg/L		<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L		<5	<5	<5	<5	<5
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	5	%		95.9	100	108	----	----
Toluene-D8	2037-26-5	5	%		96.9	104	117	----	----
4-Bromofluorobenzene	460-00-4	5	%		97.0	104	112	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		24.3	19.7	30.6	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		60.9	50.7	75.5	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		64.3	64.3	86.1	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		69.8	64.6	90.8	----	----
Anthracene-d10	1719-06-8	1.0	%		81.7	77.7	79.6	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		72.9	71.5	85.8	----	----
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	2	%		54.4	37.8	60.9	----	----
Phenol-d6	13127-88-3	2	%		25.4	22.4	31.6	----	----
2-Chlorophenol-D4	93951-73-6	2	%		59.6	50.4	79.4	----	----
2.4.6-Tribromophenol	118-79-6	2	%		61.8	70.2	82.8	----	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	2	%		69.4	59.2	90.2	----	----
1.2-Dichlorobenzene-D4	2199-69-1	2	%		34.8	27.6	45.8	----	----
2-Fluorobiphenyl	321-60-8	2	%		49.7	42.2	68.6	----	----
Anthracene-d10	1719-06-8	2	%		88.6	84.8	110	----	----
4-Terphenyl-d14	1718-51-0	2	%		77.2	90.5	97.2	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		96.1	100	108	104	105
Toluene-D8	2037-26-5	2	%		91.2	98.0	110	104	104

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	MW11_191218	MW20_191218	MW21_191218	QC104_191218	QC304_191218
				Client sampling date / time	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00	18-Dec-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942135-001	ES1942135-002	ES1942135-003	ES1942135-004	ES1942135-005
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	2	%		**97.8**	**104**	**114**	**107**	**109**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	TB_191218	----	----	----	----
				Client sampling date / time	18-Dec-2019 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES1942135-006	--------	--------	--------	--------
					Result	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ **Total Xylenes**	----	2	µg/L		<2	----	----	----	----
^ **Sum of BTEX**	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**99.6**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**101**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**106**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060-07-0	78	133
Toluene-D8	2037-26-5	79	129
4-Bromofluorobenzene	460-00-4	81	124
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	10	117
Phenol-d6	13127-88-3	10	69
2-Chlorophenol-D4	93951-73-6	21	130
2.4.6-Tribromophenol	118-79-6	10	151
EP075T: Base/Neutral Extractable Surrogates			
Nitrobenzene-D5	4165-60-0	29	142
1.2-Dichlorobenzene-D4	2199-69-1	24	121
2-Fluorobiphenyl	321-60-8	27	135
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	21	123
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES1942135**	Page	: 1 of 7
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 18-Dec-2019
Site	: ----	Issue Date	: 30-Dec-2019
Sampler	: Lochlan Lewis	No. of samples received	: 6
Order number	: J190730	No. of samples analysed	: 6

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP075A: Phenolic Compounds	QC-2774869-002	----	**2.4-Dimethylphenol**	105-67-9	39.7 %	50.0-94.0%	**Recovery less than lower control limit**
EP075E: Nitroaromatics and Ketones	QC-2774869-002	----	**Isophorone**	78-59-1	66.0 %	67.6-111%	**Recovery less than lower control limit**
EP075F: Haloethers	QC-2774869-002	----	**Bis(2-chloroethoxy) methane**	111-91-1	63.4 %	66.2-111%	**Recovery less than lower control limit**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
PAH/Phenols (GC/MS - SIM)	0	3	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	8	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
PAH/Phenols (GC/MS - SIM)	0	3	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	8	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
MW11_191218, MW20_191218, MW21_191218, QC104_191218, QC304_191218	**18-Dec-2019**	**----**	----	----	**21-Dec-2019**	15-Jun-2020	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
MW11_191218, MW20_191218, MW21_191218, QC104_191218, QC304_191218	**18-Dec-2019**	**----**	----	----	**23-Dec-2019**	15-Jan-2020	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074A: Monocyclic Aromatic Hydrocarbons							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP074B: Oxygenated Compounds							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP074C: Sulfonated Compounds							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP074D: Fumigants							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP074E: Halogenated Aliphatic Compounds							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP074F: Halogenated Aromatic Compounds							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP074G: Trihalomethanes							
Amber VOC Vial - Sulfuric Acid (EP074)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075A: Phenolic Compounds							
Amber Glass Bottle - Unpreserved (EP075)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075)							
MW11_191218, MW20_191218, MW21_191218	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075C: Phthalate Esters								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075D: Nitrosamines								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075E: Nitroaromatics and Ketones								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075F: Haloethers								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075G: Chlorinated Hydrocarbons								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075H: Anilines and Benzidines								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075I: Organochlorine Pesticides								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP075J: Organophosphorus Pesticides								
Amber Glass Bottle - Unpreserved (EP075)								
MW11_191218, MW21_191218	MW20_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**21-Dec-2019**	28-Jan-2020	✓
EP080/071: Total Petroleum Hydrocarbons								
Amber Glass Bottle - Unpreserved (EP071)								
MW11_191218, MW21_191218, QC304_191218	MW20_191218, QC104_191218,	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**22-Dec-2019**	28-Jan-2020	✓
Amber VOC Vial - Sulfuric Acid (EP080)								
MW11_191218, MW21_191218, QC304_191218,	MW20_191218, QC104_191218, TB_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
MW11_191218, MW20_191218, MW21_191218, QC104_191218, QC304_191218	**18-Dec-2019**	**19-Dec-2019**	25-Dec-2019	✓	**22-Dec-2019**	28-Jan-2020	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
MW11_191218, MW20_191218, MW21_191218, QC104_191218, QC304_191218, TB_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
MW11_191218, MW20_191218, MW21_191218, QC104_191218, QC304_191218, TB_191218	**18-Dec-2019**	**24-Dec-2019**	01-Jan-2020	✓	**24-Dec-2019**	01-Jan-2020	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	3	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	0	6	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	8	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	6	**16.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	3	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	0	6	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	8	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015A The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)
Volatile Organic Compounds	EP074	WATER	In house: Referenced to USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
Semivolatile Organic Compounds	EP075	WATER	In house: Referenced to USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260B Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM (2013) Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510B 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (2013) Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for sparging.

QUALITY CONTROL REPORT

Work Order	: **ES1942135**	Page	: 1 of 16
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: A Davis	Contact	: Shane Colley
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 18-Dec-2019
Order number	: J190730	Date Analysis Commenced	: 19-Dec-2019
C-O-C number	: ----	Issue Date	: 30-Dec-2019
Sampler	: Lochlan Lewis		
Site	: ----		
Quote number	: SY/609/19		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 2780426)									
ES1942064-002	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0007	0.0008	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.053	0.053	0.00	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	0.006	0.006	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.004	0.004	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.108	0.106	1.49	0% - 20%
ES1942130-006	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 2780430)									
ES1942163-003	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.027	0.030	10.4	No Limit
ES1942164-004	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 2780430) - continued									
ES1942164-004	Anonymous	EG020A-F: Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.026	0.026	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 2780427)									
ES1942028-011	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES1942130-003	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 2780431)									
ES1942163-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES1942164-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP074: Toluene	108-88-3	2	µg/L	6	5	0.00	No Limit
		EP074: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP074: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP074: Styrene	100-42-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	<5	0.00	No Limit
ES1942213-002	Anonymous	EP074: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP074: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP074: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP074: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP074: Styrene	100-42-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	<5	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 2782103) - continued									
ES1942213-002	Anonymous	EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	<5	0.00	No Limit
EP074B: Oxygenated Compounds (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	<50	0.00	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.00	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.00	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	0.00	No Limit
ES1942213-002	Anonymous	EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	<50	0.00	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.00	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	<50	0.00	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	<50	0.00	No Limit
EP074C: Sulfonated Compounds (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.00	No Limit
ES1942213-002	Anonymous	EP074: Carbon disulfide	75-15-0	5	µg/L	<5	<5	0.00	No Limit
EP074D: Fumigants (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: 2.2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.00	No Limit
ES1942213-002	Anonymous	EP074: 2.2-Dichloropropane	594-20-7	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	<5	0.00	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: 1.1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.00	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.00	No Limit
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.00	No Limit
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 2782103) - continued									
ES1942028-004	Anonymous	EP074: 1.1.1.2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.00	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.00	No Limit
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.00	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.00	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.00	No Limit
		EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.00	No Limit
ES1942213-002	Anonymous	EP074: 1.1-Dichloroethene	75-35-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: Iodomethane	74-88-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	5	µg/L	<5	<5	0.00	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	5	µg/L	<5	<5	0.00	No Limit
		EP074: Trichloroethene	79-01-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: Dibromomethane	74-95-3	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	5	µg/L	<5	<5	0.00	No Limit
		EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	5	µg/L	<5	<5	0.00	No Limit
		EP074: cis-1.4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: Pentachloroethane	76-01-7	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	<50	0.00	No Limit
		EP074: Chloromethane	74-87-3	50	µg/L	<50	<50	0.00	No Limit
		EP074: Vinyl chloride	75-01-4	50	µg/L	<50	<50	0.00	No Limit
		EP074: Bromomethane	74-83-9	50	µg/L	<50	<50	0.00	No Limit
		EP074: Chloroethane	75-00-3	50	µg/L	<50	<50	0.00	No Limit
		EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	<50	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP074F: Halogenated Aromatic Compounds (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.00	No Limit
		EP074: Bromobenzene	108-86-1	5	µg/L	<5	<5	0.00	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.00	No Limit
ES1942213-002	Anonymous	EP074: Chlorobenzene	108-90-7	5	µg/L	<5	<5	0.00	No Limit
		EP074: Bromobenzene	108-86-1	5	µg/L	<5	<5	0.00	No Limit
		EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	<5	0.00	No Limit
		EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	5	µg/L	<5	<5	0.00	No Limit
EP074G: Trihalomethanes (QC Lot: 2782103)									
ES1942028-004	Anonymous	EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.00	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	<5	0.00	No Limit
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.00	No Limit
ES1942213-002	Anonymous	EP074: Chloroform	67-66-3	5	µg/L	<5	<5	0.00	No Limit
		EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.00	No Limit
		EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	<5	0.00	No Limit
		EP074: Bromoform	75-25-2	5	µg/L	<5	<5	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 2782104)									
ES1942028-004	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES1942213-002	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	30	30	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 2782104)									
ES1942028-004	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES1942213-002	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	40	40	0.00	No Limit
EP080: BTEXN (QC Lot: 2782104)									
ES1942028-004	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	5	5	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
ES1942213-002	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2780426)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	97.6	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	95.5	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	88.0	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	97.6	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	94.9	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	93.9	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	95.2	81.0	117
EG020F: Dissolved Metals by ICP-MS (QCLot: 2780430)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	93.7	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	94.3	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	91.5	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	93.2	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.0	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	90.8	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	96.0	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 2780427)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	99.6	83.0	105
EG035F: Dissolved Mercury by FIMS (QCLot: 2780431)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	97.8	83.0	105
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 2782103)								
EP074: Benzene	71-43-2	1	µg/L	<1	10 µg/L	99.0	77.0	119
EP074: Toluene	108-88-3	2	µg/L	<2	10 µg/L	104	69.0	129
EP074: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	106	76.0	118
EP074: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	20 µg/L	106	77.0	119
EP074: Styrene	100-42-5	5	µg/L	<5	10 µg/L	107	73.0	119
EP074: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	106	79.0	117
EP074: Isopropylbenzene	98-82-8	5	µg/L	<5	10 µg/L	107	76.0	118
EP074: n-Propylbenzene	103-65-1	5	µg/L	<5	10 µg/L	98.0	69.0	119
EP074: 1.3.5-Trimethylbenzene	108-67-8	5	µg/L	<5	10 µg/L	101	74.0	116
EP074: sec-Butylbenzene	135-98-8	5	µg/L	<5	10 µg/L	99.3	73.0	119
EP074: 1.2.4-Trimethylbenzene	95-63-6	5	µg/L	<5	10 µg/L	100	74.0	116
EP074: tert-Butylbenzene	98-06-6	5	µg/L	<5	10 µg/L	102	72.0	116
EP074: p-Isopropyltoluene	99-87-6	5	µg/L	<5	10 µg/L	98.9	71.0	119

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 2782103) - continued								
EP074: n-Butylbenzene	104-51-8	5	µg/L	<5	10 µg/L	96.6	65.0	123
EP074B: Oxygenated Compounds (QCLot: 2782103)								
EP074: Vinyl Acetate	108-05-4	50	µg/L	<50	100 µg/L	87.6	61.4	134
EP074: 2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	100	73.6	130
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	50	µg/L	<50	100 µg/L	101	66.0	132
EP074: 2-Hexanone (MBK)	591-78-6	50	µg/L	<50	100 µg/L	104	65.0	137
EP074C: Sulfonated Compounds (QCLot: 2782103)								
EP074: Carbon disulfide	75-15-0	5	µg/L	<5	10 µg/L	92.4	72.8	127
EP074D: Fumigants (QCLot: 2782103)								
EP074: 2.2-Dichloropropane	594-20-7	5	µg/L	<5	10 µg/L	98.0	68.0	122
EP074: 1.2-Dichloropropane	78-87-5	5	µg/L	<5	10 µg/L	96.1	76.0	118
EP074: cis-1.3-Dichloropropylene	10061-01-5	5	µg/L	<5	10 µg/L	98.4	62.0	120
EP074: trans-1.3-Dichloropropylene	10061-02-6	5	µg/L	<5	10 µg/L	98.8	60.0	114
EP074: 1.2-Dibromoethane (EDB)	106-93-4	5	µg/L	<5	10 µg/L	110	69.0	117
EP074E: Halogenated Aliphatic Compounds (QCLot: 2782103)								
EP074: Dichlorodifluoromethane	75-71-8	50	µg/L	<50	100 µg/L	62.4	60.6	138
EP074: Chloromethane	74-87-3	50	µg/L	<50	100 µg/L	82.8	67.4	130
EP074: Vinyl chloride	75-01-4	50	µg/L	<50	100 µg/L	90.6	69.4	129
EP074: Bromomethane	74-83-9	50	µg/L	<50	100 µg/L	93.8	56.0	140
EP074: Chloroethane	75-00-3	50	µg/L	<50	100 µg/L	89.9	61.0	139
EP074: Trichlorofluoromethane	75-69-4	50	µg/L	<50	100 µg/L	97.3	69.0	131
EP074: 1.1-Dichloroethene	75-35-4	5	µg/L	<5	10 µg/L	99.6	70.0	124
EP074: Iodomethane	74-88-4	5	µg/L	<5	10 µg/L	112	70.2	128
EP074: trans-1.2-Dichloroethene	156-60-5	5	µg/L	<5	10 µg/L	100	74.0	118
EP074: 1.1-Dichloroethane	75-34-3	5	µg/L	<5	10 µg/L	96.1	74.0	120
EP074: cis-1.2-Dichloroethene	156-59-2	5	µg/L	<5	10 µg/L	99.9	77.0	119
EP074: 1.1.1-Trichloroethane	71-55-6	5	µg/L	<5	10 µg/L	102	67.0	119
EP074: 1.1-Dichloropropylene	563-58-6	5	µg/L	<5	10 µg/L	99.9	73.0	119
EP074: Carbon Tetrachloride	56-23-5	5	µg/L	<5	10 µg/L	102	62.0	120
EP074: 1.2-Dichloroethane	107-06-2	5	µg/L	<5	10 µg/L	99.6	73.0	123
EP074: Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.7	76.0	118
EP074: Dibromomethane	74-95-3	5	µg/L	<5	10 µg/L	103	73.0	119
EP074: 1.1.2-Trichloroethane	79-00-5	5	µg/L	<5	10 µg/L	107	72.0	126
EP074: 1.3-Dichloropropane	142-28-9	5	µg/L	<5	10 µg/L	108	71.0	129
EP074: Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	111	72.0	124
EP074: 1.1.1.2-Tetrachloroethane	630-20-6	5	µg/L	<5	10 µg/L	109	66.0	114
EP074: trans-1.4-Dichloro-2-butene	110-57-6	5	µg/L	<5	10 µg/L	100	60.0	120
EP074: cis-1.4-Dichloro-2-butene	1476-11-5	5	µg/L	<5	10 µg/L	95.2	70.6	128

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP074E: Halogenated Aliphatic Compounds (QCLot: 2782103) - continued								
EP074: 1.1.2.2-Tetrachloroethane	79-34-5	5	µg/L	<5	10 µg/L	107	70.0	124
EP074: 1.2.3-Trichloropropane	96-18-4	5	µg/L	<5	10 µg/L	114	74.0	126
EP074: Pentachloroethane	76-01-7	5	µg/L	<5	10 µg/L	98.7	71.8	126
EP074: 1.2-Dibromo-3-chloropropane	96-12-8	5	µg/L	<5	10 µg/L	94.6	66.4	136
EP074F: Halogenated Aromatic Compounds (QCLot: 2782103)								
EP074: Chlorobenzene	108-90-7	5	µg/L	<5	10 µg/L	108	79.0	117
EP074: Bromobenzene	108-86-1	5	µg/L	<5	10 µg/L	103	76.0	116
EP074: 2-Chlorotoluene	95-49-8	5	µg/L	<5	10 µg/L	99.8	73.0	119
EP074: 4-Chlorotoluene	106-43-4	5	µg/L	<5	10 µg/L	98.1	73.0	119
EP074: 1.2.3-Trichlorobenzene	87-61-6	5	µg/L	<5	10 µg/L	104	67.0	123
EP074G: Trihalomethanes (QCLot: 2782103)								
EP074: Chloroform	67-66-3	5	µg/L	<5	10 µg/L	102	72.0	120
EP074: Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	64.0	118
EP074: Dibromochloromethane	124-48-1	5	µg/L	<5	10 µg/L	105	65.0	115
EP074: Bromoform	75-25-2	5	µg/L	<5	10 µg/L	106	73.5	126
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2774871)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	57.6	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	75.6	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	65.0	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	73.3	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	79.0	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	97.8	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	98.7	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	98.1	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	93.1	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	85.2	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	1	µg/L	<1.0	5 µg/L	90.6	61.7	119
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	90.7	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	98.4	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	92.3	59.9	118
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	96.9	61.2	117
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	97.9	59.1	118
EP075A: Phenolic Compounds (QCLot: 2774869)								
EP075: Phenol	108-95-2	2	µg/L	<2	10 µg/L	33.2	25.5	64.1
EP075: 2-Chlorophenol	95-57-8	2	µg/L	<2	10 µg/L	56.4	52.0	88.0
EP075: 2-Methylphenol	95-48-7	2	µg/L	<2	10 µg/L	52.3	50.0	94.0
EP075: 3- & 4-Methylphenol	1319-77-3	2	µg/L	<2	10 µg/L	53.8	45.0	96.2

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075A: Phenolic Compounds (QCLot: 2774869) - continued								
EP075: 2-Nitrophenol	88-75-5	2	µg/L	<2	10 µg/L	73.1	48.0	98.0
EP075: 2.4-Dimethylphenol	105-67-9	2	µg/L	<2	10 µg/L	# 39.7	50.0	94.0
EP075: 2.4-Dichlorophenol	120-83-2	2	µg/L	<2	10 µg/L	68.7	61.9	109
EP075: 2.6-Dichlorophenol	87-65-0	2	µg/L	<2	10 µg/L	62.1	61.5	108
EP075: 4-Chloro-3-methylphenol	59-50-7	2	µg/L	<2	10 µg/L	70.5	61.4	107
EP075: 2.4.6-Trichlorophenol	88-06-2	2	µg/L	<2	10 µg/L	76.1	57.6	112
EP075: 2.4.5-Trichlorophenol	95-95-4	2	µg/L	<2	10 µg/L	79.9	58.0	110
EP075: Pentachlorophenol	87-86-5	4	µg/L	<4	20 µg/L	91.2	12.8	95.0
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 2774869)								
EP075: Naphthalene	91-20-3	2	µg/L	<2	10 µg/L	59.0	51.0	95.0
EP075: 2-Methylnaphthalene	91-57-6	2	µg/L	<2	10 µg/L	61.2	59.0	108
EP075: 2-Chloronaphthalene	91-58-7	2	µg/L	<2	10 µg/L	62.3	60.6	106
EP075: Acenaphthylene	208-96-8	2	µg/L	<2	10 µg/L	67.1	64.0	108
EP075: Acenaphthene	83-32-9	2	µg/L	<2	10 µg/L	70.1	65.0	108
EP075: Fluorene	86-73-7	2	µg/L	<2	10 µg/L	74.9	65.2	107
EP075: Phenanthrene	85-01-8	2	µg/L	<2	10 µg/L	81.1	66.7	108
EP075: Anthracene	120-12-7	2	µg/L	<2	10 µg/L	80.3	65.8	108
EP075: Fluoranthene	206-44-0	2	µg/L	<2	10 µg/L	83.7	64.9	109
EP075: Pyrene	129-00-0	2	µg/L	<2	10 µg/L	85.6	60.1	111
EP075: N-2-Fluorenyl Acetamide	53-96-3	2	µg/L	<2	10 µg/L	99.3	59.7	110
EP075: Benz(a)anthracene	56-55-3	2	µg/L	<2	10 µg/L	80.5	62.2	112
EP075: Chrysene	218-01-9	2	µg/L	<2	10 µg/L	83.8	59.3	114
EP075: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	20 µg/L	78.2	60.1	111
EP075: 7.12-Dimethylbenz(a)anthracene	57-97-6	2	µg/L	<2	10 µg/L	75.5	50.0	108
EP075: Benzo(a)pyrene	50-32-8	2	µg/L	<2	10 µg/L	78.4	59.2	112
EP075: 3-Methylcholanthrene	56-49-5	2	µg/L	<2	10 µg/L	71.1	60.1	110
EP075: Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	10 µg/L	80.4	59.6	110
EP075: Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	10 µg/L	81.8	57.2	109
EP075: Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	10 µg/L	78.4	60.6	110
EP075: Benzo(a)pyrene TEQ (zero)	----	2	µg/L	<2	----	----	----	----
EP075C: Phthalate Esters (QCLot: 2774869)								
EP075: Dimethyl phthalate	131-11-3	2	µg/L	<2	10 µg/L	80.6	64.3	112
EP075: Diethyl phthalate	84-66-2	2	µg/L	<2	10 µg/L	85.4	67.3	111
EP075: Di-n-butyl phthalate	84-74-2	2	µg/L	<2	10 µg/L	87.9	68.4	122
EP075: Butyl benzyl phthalate	85-68-7	2	µg/L	<2	10 µg/L	92.4	61.2	114
EP075: bis(2-ethylhexyl) phthalate	117-81-7	----	µg/L	----	10 µg/L	99.4	60.0	132
EP075: Di-n-octylphthalate	117-84-0	2	µg/L	<2	10 µg/L	88.2	62.1	115

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075D: Nitrosamines (QCLot: 2774869)								
EP075: N-Nitrosomethylethylamine	10595-95-6	2	µg/L	<2	10 µg/L	54.5	46.0	110
EP075: N-Nitrosodiethylamine	55-18-5	2	µg/L	<2	10 µg/L	61.4	60.6	113
EP075: N-Nitrosopyrrolidine	930-55-2	4	µg/L	<4	10 µg/L	58.4	45.0	91.0
EP075: N-Nitrosomorpholine	59-89-2	2	µg/L	<2	10 µg/L	53.7	42.0	100
EP075: N-Nitrosodi-n-propylamine	621-64-7	2	µg/L	<2	10 µg/L	66.0	63.5	108
EP075: N-Nitrosopiperidine	100-75-4	2	µg/L	<2	10 µg/L	63.2	61.7	107
EP075: N-Nitrosodibutylamine	924-16-3	2	µg/L	<2	10 µg/L	66.1	62.5	108
EP075: N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	4	µg/L	<4	20 µg/L	78.2	64.6	112
EP075: Methapyrilene	91-80-5	2	µg/L	<2	10 µg/L	32.2	23.3	125
EP075E: Nitroaromatics and Ketones (QCLot: 2774869)								
EP075: 2-Picoline	109-06-8	2	µg/L	<2	10 µg/L	51.0	41.0	109
EP075: Acetophenone	98-86-2	2	µg/L	<2	10 µg/L	85.0	68.3	112
EP075: Nitrobenzene	98-95-3	2	µg/L	<2	10 µg/L	79.5	68.3	112
EP075: Isophorone	78-59-1	2	µg/L	<2	10 µg/L	# 66.0	67.6	111
EP075: 2.6-Dinitrotoluene	606-20-2	4	µg/L	<4	10 µg/L	77.8	64.4	113
EP075: 2.4-Dinitrotoluene	121-14-2	4	µg/L	<4	10 µg/L	81.3	59.5	109
EP075: 1-Naphthylamine	134-32-7	2	µg/L	<2	10 µg/L	72.4	46.8	102
EP075: 4-Nitroquinoline-N-oxide	56-57-5	2	µg/L	<2	10 µg/L	82.6	40.0	96.0
EP075: 5-Nitro-o-toluidine	99-55-8	2	µg/L	<2	10 µg/L	79.6	58.3	106
EP075: Azobenzene	103-33-3	2	µg/L	<2	10 µg/L	76.0	66.0	112
EP075: 1.3.5-Trinitrobenzene	99-35-4	2	µg/L	<2	10 µg/L	83.0	46.0	108
EP075: Phenacetin	62-44-2	2	µg/L	<2	10 µg/L	81.3	57.8	101
EP075: 4-Aminobiphenyl	92-67-1	2	µg/L	<2	10 µg/L	69.4	60.1	112
EP075: Pentachloronitrobenzene	82-68-8	2	µg/L	<2	10 µg/L	79.2	59.0	109
EP075: Pronamide	23950-58-5	2	µg/L	<2	10 µg/L	79.0	62.7	109
EP075: Dimethylaminoazobenzene	60-11-7	2	µg/L	<2	10 µg/L	83.0	59.4	108
EP075: Chlorobenzilate	510-15-6	2	µg/L	<2	10 µg/L	95.5	57.7	110
EP075F: Haloethers (QCLot: 2774869)								
EP075: Bis(2-chloroethyl) ether	111-44-4	2	µg/L	<2	10 µg/L	72.5	69.1	112
EP075: Bis(2-chloroethoxy) methane	111-91-1	2	µg/L	<2	10 µg/L	# 63.4	66.2	111
EP075: 4-Chlorophenyl phenyl ether	7005-72-3	2	µg/L	<2	10 µg/L	74.4	64.7	109
EP075: 4-Bromophenyl phenyl ether	101-55-3	2	µg/L	<2	10 µg/L	76.1	61.6	108
EP075G: Chlorinated Hydrocarbons (QCLot: 2774869)								
EP075: 1.4-Dichlorobenzene	106-46-7	2	µg/L	<2	10 µg/L	51.3	41.0	97.0
EP075: 1.3-Dichlorobenzene	541-73-1	2	µg/L	<2	10 µg/L	51.7	40.0	96.0
EP075: 1.2-Dichlorobenzene	95-50-1	2	µg/L	<2	10 µg/L	52.9	41.0	95.0
EP075: Hexachloroethane	67-72-1	2	µg/L	<2	10 µg/L	52.1	46.0	88.0

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP075G: Chlorinated Hydrocarbons (QCLot: 2774869) - continued								
EP075: 1.2.4-Trichlorobenzene	120-82-1	2	µg/L	<2	10 µg/L	54.4	46.0	96.0
EP075: Hexachloropropylene	1888-71-7	2	µg/L	<2	10 µg/L	59.5	34.0	96.0
EP075: Hexachlorobutadiene	87-68-3	2	µg/L	<2	10 µg/L	55.7	37.4	100
EP075: Hexachlorocyclopentadiene	77-47-4	10	µg/L	<10	10 µg/L	59.4	23.5	107
EP075: Pentachlorobenzene	608-93-5	2	µg/L	<2	10 µg/L	68.0	64.5	107
EP075: Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	10 µg/L	74.4	65.7	110
EP075H: Anilines and Benzidines (QCLot: 2774869)								
EP075: Aniline	62-53-3	2	µg/L	<2	10 µg/L	57.5	50.0	104
EP075: 4-Chloroaniline	106-47-8	2	µg/L	<2	10 µg/L	58.0	42.0	106
EP075: 2-Nitroaniline	88-74-4	4	µg/L	<4	10 µg/L	79.4	60.9	110
EP075: 3-Nitroaniline	99-09-2	4	µg/L	<4	10 µg/L	78.5	51.5	96.9
EP075: Dibenzofuran	132-64-9	2	µg/L	<2	10 µg/L	70.0	65.3	108
EP075: 4-Nitroaniline	100-01-6	2	µg/L	<2	10 µg/L	78.2	48.9	99.5
EP075: Carbazole	86-74-8	2	µg/L	<2	10 µg/L	81.5	64.3	107
EP075: 3.3`-Dichlorobenzidine	91-94-1	2	µg/L	<2	10 µg/L	77.1	60.3	119
EP075I: Organochlorine Pesticides (QCLot: 2774869)								
EP075: alpha-BHC	319-84-6	2	µg/L	<2	10 µg/L	75.2	64.3	110
EP075: beta-BHC	319-85-7	2	µg/L	<2	10 µg/L	77.6	53.0	107
EP075: gamma-BHC	58-89-9	2	µg/L	<2	10 µg/L	73.1	51.0	111
EP075: delta-BHC	319-86-8	2	µg/L	<2	10 µg/L	78.9	57.0	111
EP075: Heptachlor	76-44-8	2	µg/L	<2	10 µg/L	81.2	57.9	108
EP075: Aldrin	309-00-2	2	µg/L	<2	10 µg/L	76.6	56.0	112
EP075: Heptachlor epoxide	1024-57-3	2	µg/L	<2	10 µg/L	75.3	50.0	118
EP075: alpha-Endosulfan	959-98-8	2	µg/L	<2	10 µg/L	63.6	59.0	111
EP075: 4.4`-DDE	72-55-9	2	µg/L	<2	10 µg/L	83.7	53.0	115
EP075: Dieldrin	60-57-1	2	µg/L	<2	10 µg/L	82.8	59.0	115
EP075: Endrin	72-20-8	2	µg/L	<2	10 µg/L	85.2	58.0	114
EP075: beta-Endosulfan	33213-65-9	2	µg/L	<2	10 µg/L	85.6	54.0	116
EP075: 4.4`-DDD	72-54-8	2	µg/L	<2	10 µg/L	86.7	55.0	115
EP075: Endosulfan sulfate	1031-07-8	2	µg/L	<2	10 µg/L	102	52.8	114
EP075: 4.4`-DDT	50-29-3	4	µg/L	<4	10 µg/L	90.4	56.0	114
EP075: Sum of Aldrin + Dieldrin	309-00-2/60-57-1	4	µg/L	<4	----	----	----	----
EP075: Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	4	µg/L	<4	----	----	----	----
EP075J: Organophosphorus Pesticides (QCLot: 2774869)								
EP075: Dichlorvos	62-73-7	2	µg/L	<2	10 µg/L	90.0	51.0	113
EP075: Dimethoate	60-51-5	2	µg/L	<2	10 µg/L	89.4	43.0	109

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP075J: Organophosphorus Pesticides (QCLot: 2774869) - continued								
EP075: Diazinon	333-41-5	2	µg/L	<2	10 µg/L	89.7	49.0	113
EP075: Chlorpyrifos-methyl	5598-13-0	2	µg/L	<2	10 µg/L	92.4	54.1	116
EP075: Malathion	121-75-5	2	µg/L	<2	10 µg/L	114	54.0	124
EP075: Fenthion	55-38-9	2	µg/L	<2	10 µg/L	88.7	57.0	115
EP075: Chlorpyrifos	2921-88-2	2	µg/L	<2	10 µg/L	84.9	53.0	109
EP075: Pirimphos-ethyl	23505-41-1	2	µg/L	<2	10 µg/L	86.7	55.0	111
EP075: Chlorfenvinphos	470-90-6	2	µg/L	<2	10 µg/L	93.9	50.0	116
EP075: Prothiofos	34643-46-4	2	µg/L	<2	10 µg/L	87.7	54.0	118
EP075: Ethion	563-12-2	2	µg/L	<2	10 µg/L	97.5	51.0	117
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2774870)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	2000 µg/L	57.5	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	3000 µg/L	92.9	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	2000 µg/L	77.2	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2782104)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	97.4	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2774870)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	2500 µg/L	65.5	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	3500 µg/L	76.9	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	1500 µg/L	80.4	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2782104)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	97.4	75.0	127
EP080: BTEXN (QCLot: 2782104)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	94.2	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	92.8	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	96.2	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	96.4	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	99.6	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	108	70.0	120

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2780426)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 2780426) - continued							
ES1942064-001	Anonymous	EG020A-F: Arsenic	7440-38-2	2 mg/L	70.0	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.5 mg/L	72.6	70.0	130
		EG020A-F: Chromium	7440-47-3	2 mg/L	73.9	70.0	130
		EG020A-F: Copper	7440-50-8	2 mg/L	72.1	70.0	130
		EG020A-F: Lead	7439-92-1	2 mg/L	71.1	70.0	130
		EG020A-F: Nickel	7440-02-0	2 mg/L	70.3	70.0	130
		EG020A-F: Zinc	7440-66-6	2 mg/L	72.6	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 2780430)							
ES1942163-002	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	124	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	127	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	129	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	126	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	126	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	123	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	128	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 2780427)							
ES1942028-004	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	81.4	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 2780431)							
ES1942135-005	QC304_191218	EG035F: Mercury	7439-97-6	0.01 mg/L	70.4	70.0	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 2782103)							
ES1942028-004	Anonymous	EP074: Benzene	71-43-2	25 µg/L	91.5	70.0	130
		EP074: Toluene	108-88-3	25 µg/L	97.0	70.0	130
EP074E: Halogenated Aliphatic Compounds (QCLot: 2782103)							
ES1942028-004	Anonymous	EP074: 1.1-Dichloroethene	75-35-4	25 µg/L	90.7	70.0	130
		EP074: Trichloroethene	79-01-6	25 µg/L	98.0	70.0	130
EP074F: Halogenated Aromatic Compounds (QCLot: 2782103)							
ES1942028-004	Anonymous	EP074: Chlorobenzene	108-90-7	25 µg/L	97.4	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 2782104)							
ES1942028-004	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	93.4	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 2782104)							
ES1942028-004	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	96.6	70.0	130
EP080: BTEXN (QCLot: 2782104)							
ES1942028-004	Anonymous	EP080: Benzene	71-43-2	25 µg/L	72.9	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	83.7	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	96.7	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080: BTEXN (QCLot: 2782104) - continued							
ES1942028-004	Anonymous	EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	95.8	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	101	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	114	70.0	130

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	Sample ID	TCLP Pb	TCLP B(a)P	Silica gel clean-up TRH C16-C34	Asbestos % quantification
1	BH01_0.1_191127				
2	BH01_0.5_191127	1	1		
3	BH01_2.5_191127			1	
4	BH02_0.1_191127	1			
5	BH02_2.5_191127			1	
6	BH03_2.5_191127				
7	BH04_0.1_191127	1			
8	BH04_0.5_191127	1			
9	BH05_0.1_191127	1	1		
10	BH05_0.9_191127	1			
11	BH05_1.2_191127			1	
12	BH06_0.1_191127	1			
13	BH06_0.5_191127	1			
14	BH06_2.2_191127			1	
15	BH07_0.1_191127	1			
16	BH08_0.5_191127	1			
17	BH08_2.0_191127			1	
18	BH09_0.1_191127	1	1		
19	BH09_0.5_191127	1	1		
20	BH10_0.1_191128	1	1		
21	BH10_1.0_191128				
22	BH10_2.5_191128				
23	BH12_0.1_191128		1		
24	BH12_1.5_191128			1	
25	BH13_0.1_191128		1	1	
26	BH13_0.5_191128		1	1	
27	BH13_1.5_191128			1	
28	BH13_2.5_191128			1	
29	BH14_0.3_191128	1	1	1	
30	BH14_1.0_191128	1		1	
31	BH14_3.0_191128				
32	BH15_0.2_191128	1	1	1	
33	BH15_1.5_191128			1	
34	BH15_2.5_191128				
35	BH16_1.7_191128			1	
36	BH17_0.1_191128	1	1		
37	BH17_2.5_191128				
38	BH18_0.1_191129	1			
39	BH18_0.5_191129		1		
40	BH19_0.5_191129	1	1	1	1
41	BH19_1.5_191129			1	
42	MW11_0.5_191128	1	1	1	
43	MW11_3.5_191128		1		
44	MW11_5.0_191128		1		
45	MW20_1.8_191129			1	
46	MW20_4.0_191129	1			
47	MW21_0.3_191129		1	1	
48	MW21_1.3_191129			1	
	total	*21*	*17*	*21*	*1*

Environmental Division
Sydney
Work Order Reference
ES1942520

Telephone : +61-2-8784 8555

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES1942520**		
Amendment	: **1**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: Lachlan Lewis	Contact	: Customer Services ES
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: llewis@emmconsulting.com.au	E-mail	: ALSEnviro.Sydney@ALSGlobal.com
Telephone	: 02 9493 9577	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: LAHC Redfern	Page	: 1 of 4
Order number	: ----	Quote number	: ES2019EMGAMM0009 (SY/609/19)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: J190730		

Dates

Date Samples Received	: 20-Dec-2019 21:20	Issue Date	: 17-Jan-2020
Client Requested Due Date	: 20-Jan-2020	Scheduled Reporting Date	: **20-Jan-2020**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: ----	Temperature	: 4.1'C
Receipt Detail	:	No. of samples received / analysed	: 48 / 41

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **This work order is a rebtach of ES1939690.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Client sampling date / time	Client sample ID	(On Hold) SOIL No analysis requested	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - EG005C Leachable Metals by ICPAES	SOIL - EP071-SVSG TRH - Semivolatile Fractions Only (after Silica	SOIL - EP075 SIM PAH only SIM - PAH only	SOIL - TCLP TCLP Leach
ES1942520-001	27-Nov-2019 00:00	BH01_0.1_191127	✓					
ES1942520-002	27-Nov-2019 00:00	BH01_0.5_191127			✓		✓	✓
ES1942520-003	27-Nov-2019 00:00	BH01_2.5_191127				✓		
ES1942520-004	27-Nov-2019 00:00	BH02_0.1_191127			✓			✓
ES1942520-005	27-Nov-2019 00:00	BH02_2.5_191127				✓		
ES1942520-006	27-Nov-2019 00:00	BH03_2.5_191127	✓					
ES1942520-007	27-Nov-2019 00:00	BH04_0.1_191127			✓			✓
ES1942520-008	27-Nov-2019 00:00	BH04_0.5_191127			✓			✓
ES1942520-009	27-Nov-2019 00:00	BH05_0.1_191127			✓		✓	✓
ES1942520-010	27-Nov-2019 00:00	BH05_0.9_191127			✓			✓
ES1942520-011	27-Nov-2019 00:00	BH05_1.2_191127				✓		
ES1942520-012	27-Nov-2019 00:00	BH06_0.1_191127			✓			✓
ES1942520-013	27-Nov-2019 00:00	BH06_0.5_191127			✓			✓
ES1942520-014	27-Nov-2019 00:00	BH06_2.2_191127				✓		
ES1942520-015	27-Nov-2019 00:00	BH07_0.1_191127			✓			✓
ES1942520-016	27-Nov-2019 00:00	BH08_0.5_191127			✓			✓
ES1942520-017	27-Nov-2019 00:00	BH08_2.0_191127				✓		
ES1942520-018	27-Nov-2019 00:00	BH09_0.1_191127			✓		✓	✓
ES1942520-019	27-Nov-2019 00:00	BH09_0.5_191127			✓		✓	✓
ES1942520-020	28-Nov-2019 00:00	BH10_0.1_191128			✓		✓	✓
ES1942520-021	28-Nov-2019 00:00	BH10_1.0_191128	✓					
ES1942520-022	28-Nov-2019 00:00	BH10_2.5_191128	✓					
ES1942520-023	28-Nov-2019 00:00	BH12_0.1_191128					✓	✓
ES1942520-024	28-Nov-2019 00:00	BH12_1.5_191128				✓		
ES1942520-025	28-Nov-2019 00:00	BH13_0.1_191128				✓	✓	✓
ES1942520-026	28-Nov-2019 00:00	BH13_0.5_191128				✓	✓	✓
ES1942520-027	28-Nov-2019 00:00	BH13_1.5_191128				✓		
ES1942520-028	28-Nov-2019 00:00	BH13_2.5_191128				✓		
ES1942520-029	28-Nov-2019 00:00	BH14_0.3_191128			✓	✓	✓	✓
ES1942520-030	28-Nov-2019 00:00	BH14_1.0_191128			✓	✓		✓
ES1942520-031	28-Nov-2019 00:00	BH14_3.0_191128	✓					
ES1942520-032	28-Nov-2019 00:00	BH15_0.2_191128			✓	✓	✓	✓
ES1942520-033	28-Nov-2019 00:00	BH15_1.5_191128				✓		
ES1942520-034	28-Nov-2019 00:00	BH15_2.5_191128	✓					
ES1942520-035	28-Nov-2019 00:00	BH16_1.7_191128				✓		

			(On Hold) SOIL No analysis requested	SOIL - EA200N Asbestos in Soils - (<1kg samples ONLY)	SOIL - EG005C Leachable Metals by ICPAES	SOIL - EP071-SVSG TRH - Semivolatile Fractions Only (after Silica	SOIL - EP075 SIM PAH only SIM - PAH only	SOIL - TCLP TCLP Leach
ES1942520-036	28-Nov-2019 00:00	BH17_0.1_191128			✓		✓	✓
ES1942520-037	28-Nov-2019 00:00	BH17_2.5_191128	✓					
ES1942520-038	29-Nov-2019 00:00	BH18_0.1_191129			✓			✓
ES1942520-039	29-Nov-2019 00:00	BH18_0.5_191129					✓	✓
ES1942520-040	29-Nov-2019 00:00	BH19_0.5_191129		✓	✓	✓	✓	✓
ES1942520-041	29-Nov-2019 00:00	BH19_1.5_191129		✓		✓		
ES1942520-042	28-Nov-2019 00:00	MW11_0.5_191128			✓	✓	✓	✓
ES1942520-043	28-Nov-2019 00:00	MW11_3.5_191128					✓	✓
ES1942520-044	28-Nov-2019 00:00	MW11_5.0_191128					✓	✓
ES1942520-045	29-Nov-2019 00:00	MW20_1.8_191128				✓		
ES1942520-046	29-Nov-2019 00:00	MW20_4.0_191128			✓			✓
ES1942520-047	29-Nov-2019 00:00	MW21_0.3_191128				✓	✓	✓
ES1942520-048	29-Nov-2019 00:00	MW21_1.3_191128				✓		

Proactive Holding Time Report

The following table summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Client Sample ID(s)	Container	Due for extraction	Due for analysis	Samples Received		Instructions Received	
				Date	Evaluation	Date	Evaluation
EA055: Moisture Content							
BH01_2.5_191127	Soil Glass Jar - Unpreserved	----	11-Dec-2019	20-Dec-2019	×	----	----
BH02_2.5_191127	Soil Glass Jar - Unpreserved	----	11-Dec-2019	20-Dec-2019	×	----	----
BH05_1.2_191127	Soil Glass Jar - Unpreserved	----	11-Dec-2019	20-Dec-2019	×	----	----
BH06_2.2_191127	Soil Glass Jar - Unpreserved	----	11-Dec-2019	20-Dec-2019	×	----	----
BH08_2.0_191127	Soil Glass Jar - Unpreserved	----	11-Dec-2019	20-Dec-2019	×	----	----
BH12_1.5_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH13_0.1_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH13_0.5_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH13_1.5_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH13_2.5_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH14_0.3_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH14_1.0_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH15_0.2_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH15_1.5_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH16_1.7_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
BH19_0.5_191129	Soil Glass Jar - Unpreserved	----	13-Dec-2019	20-Dec-2019	×	----	----
BH19_1.5_191129	Soil Glass Jar - Unpreserved	----	13-Dec-2019	20-Dec-2019	×	----	----
MW11_0.5_191128	Soil Glass Jar - Unpreserved	----	12-Dec-2019	20-Dec-2019	×	----	----
MW20_1.8_191128	Soil Glass Jar - Unpreserved	----	13-Dec-2019	20-Dec-2019	×	----	----
MW21_0.3_191128	Soil Glass Jar - Unpreserved	----	13-Dec-2019	20-Dec-2019	×	----	----
MW21_1.3_191128	Soil Glass Jar - Unpreserved	----	13-Dec-2019	20-Dec-2019	×	----	----
EN33a: TCLP for Non & Semivolatile Analytes							
BH01_0.5_191127	Non-Volatile Leach: 14 day HT(e	11-Dec-2019	----	20-Dec-2019	×	----	----
BH05_0.1_191127	Non-Volatile Leach: 14 day HT(e	11-Dec-2019	----	20-Dec-2019	×	----	----
BH09_0.1_191127	Non-Volatile Leach: 14 day HT(e	11-Dec-2019	----	20-Dec-2019	×	----	----
BH09_0.5_191127	Non-Volatile Leach: 14 day HT(e	11-Dec-2019	----	20-Dec-2019	×	----	----

BH10_0.1_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH12_0.1_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH13_0.1_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH13_0.5_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH14_0.3_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH14_1.0_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH15_0.2_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH17_0.1_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
BH18_0.5_191129	Non-Volatile Leach: 14 day HT(ε	13-Dec-2019	----	20-Dec-2019	✘	----	----
BH19_0.5_191129	Non-Volatile Leach: 14 day HT(ε	13-Dec-2019	----	20-Dec-2019	✘	----	----
MW11_0.5_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
MW11_3.5_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
MW11_5.0_191128	Non-Volatile Leach: 14 day HT(ε	12-Dec-2019	----	20-Dec-2019	✘	----	----
MW21_0.3_191128	Non-Volatile Leach: 14 day HT(ε	13-Dec-2019	----	20-Dec-2019	✘	----	----
EP071-SVSG: TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)							
BH01_2.5_191127	Soil Glass Jar - Unpreserved	11-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH02_2.5_191127	Soil Glass Jar - Unpreserved	11-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH05_1.2_191127	Soil Glass Jar - Unpreserved	11-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH06_2.2_191127	Soil Glass Jar - Unpreserved	11-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH08_2.0_191127	Soil Glass Jar - Unpreserved	11-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH12_1.5_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH13_0.1_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH13_0.5_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH13_1.5_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH13_2.5_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH14_0.3_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH14_1.0_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH15_0.2_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH15_1.5_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH16_1.7_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH19_0.5_191129	Soil Glass Jar - Unpreserved	13-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
BH19_1.5_191129	Soil Glass Jar - Unpreserved	13-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
MW11_0.5_191128	Soil Glass Jar - Unpreserved	12-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
MW20_1.8_191128	Soil Glass Jar - Unpreserved	13-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
MW21_0.3_191128	Soil Glass Jar - Unpreserved	13-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----
MW21_1.3_191128	Soil Glass Jar - Unpreserved	13-Dec-2019	01-Feb-2020	20-Dec-2019	✘	----	----

Requested Deliverables

ALL ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	emmconsulting@esdat.net

ALL INVOICES

- A4 - AU Tax Invoice (INV)	Email	finance@emmconsulting.com.au

Lachlan Lewis

- *AU Certificate of Analysis - NATA (COA)	Email	llewis@emmconsulting.com.au
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	llewis@emmconsulting.com.au
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	llewis@emmconsulting.com.au
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	llewis@emmconsulting.com.au
- Chain of Custody (CoC) (COC)	Email	llewis@emmconsulting.com.au
- EDI Format - ENMRG (ENMRG)	Email	llewis@emmconsulting.com.au
- EDI Format - ESDAT (ESDAT)	Email	llewis@emmconsulting.com.au

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES1942520**	Page	: 1 of 18
Amendment	: **3**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: Lachlan Lewis	Contact	: Customer Services ES
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: 02 9493 9577	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 20-Dec-2019 21:20
Order number	: ----	Date Analysis Commenced	: 23-Dec-2019
C-O-C number	: ----	Issue Date	: 07-Feb-2020 14:44
Sampler	: J190730		
Site	: ----		
Quote number	: SY/609/19		
No. of samples received	: 48		
No. of samples analysed	: 41		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Descriptive Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alana Smylie	Asbestos Identifier	Newcastle - Asbestos, Mayfield West, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

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

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- EP071-SVSG: LOR for particular sample(s) raised due to high moisture content.
- Amendment (07/02/2020): This report has been amended to allow a change in ID for sample 025 to 'BH13_0.3_191128'. All analysis results are as per the previous report.
- Amendment (07/02/2020):This report has been amended following the changes to the analytical data reported for all soil under EP071-SVSG method.
- Amendment (17/01/2020): This report has been amended and re-released to allow the reporting of additional analytical data.
- EA200N: Asbestos weights and percentages are not covered under the Scope of NATA Accreditation.
  Weights of Asbestos are based on extracted bulk asbestos, fibre bundles, and/or ACM and do not include respirable fibres (if present)
  The Asbestos (Fines and Fibrous) weight is calculated from the extracted Fibrous Asbestos and Asbestos Fines as an equivalent weight of 100% Asbestos
  Percentages for Asbestos content in ACM are based on the 2013 NEPM default values.
  All calculations of percentage Asbestos under this method are approximate and should be used as a guide only.
- EA200 'Am' Amosite (brown asbestos)
- EA200 'Cr' Crocidolite (blue asbestos)
- EA200 'Trace' - Asbestos fibres ("Free Fibres") detected by trace analysis per AS4964. The result can be interpreted that the sample contains detectable 'respirable' asbestos fibres
- EA200: Asbestos Identification Samples were analysed by Polarised Light Microscopy including dispersion staining.
- EA200 Legend
- EA200 'Ch' Chrysotile (white asbestos)
- EA200: 'UMF' Unknown Mineral Fibres. "-" indicates fibres detected may or may not be asbestos fibres. Confirmation by alternative techniques is recommended.
- EA200N: ALS laboratory procedures and methods used for the identification and quantitation of asbestos are consistent with AS4964-2004 and the requirements of the 2013 NEPM for Assessment of Site Contamination
- EA200: For samples larger than 30g, the <2mm fraction may be sub-sampled prior to trace analysis as outlined in ISO23909:2008(E) Sect 6.3.2-2
- EA200: 'Yes' - Asbestos detected by polarised light microscopy including dispersion staining.
- EA200: 'No*' - No asbestos found, at the reporting limit of 0.1g/kg, by polarised light microscopy including dispersion staining. Asbestos material was detected and positively identified at concentrations estimated to be below 0.1g/kg.
- EA200: 'No' - No asbestos found at the reporting limit 0.1g/kg, by polarised light microscopy including dispersion staining.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH01_0.5_191127	BH01_2.5_191127	BH02_0.1_191127	BH02_2.5_191127	BH04_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942520-002	ES1942520-003	ES1942520-004	ES1942520-005	ES1942520-007
					Result	Result	Result	Result	Result
EN33: TCLP Leach									
Initial pH	----	0.1	pH Unit		**8.9**	----	**8.8**	----	**7.8**
After HCl pH	----	0.1	pH Unit		**1.4**	----	**1.5**	----	**1.4**
Extraction Fluid Number	----	1	-		**1**	----	**1**	----	**1**
Final pH	----	0.1	pH Unit		**5.3**	----	**5.2**	----	**5.0**
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		----	<110	----	<110	----
C15 - C28 Fraction	----	100	mg/kg		----	**3710**	----	**2780**	----
C29 - C36 Fraction	----	100	mg/kg		----	**1800**	----	**1580**	----
C10 - C36 Fraction (sum)	----	50	mg/kg		----	**5510**	----	**4360**	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		----	<110	----	<110	----
>C16 - C34 Fraction	----	100	mg/kg		----	**5460**	----	**4320**	----
>C34 - C40 Fraction	----	100	mg/kg		----	<110	----	<110	----
>C10 - C40 Fraction (sum)	----	50	mg/kg		----	**5460**	----	**4320**	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH04_0.5_191127	BH05_0.1_191127	BH05_0.9_191127	BH05_1.2_191127	BH06_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942520-008	ES1942520-009	ES1942520-010	ES1942520-011	ES1942520-012
					Result	Result	Result	Result	Result
EN33: TCLP Leach									
Initial pH	----	0.1	pH Unit		**8.9**	**8.8**	**6.9**	----	**7.3**
After HCl pH	----	0.1	pH Unit		**1.8**	**2.0**	**1.4**	----	**1.6**
Extraction Fluid Number	----	1	-		**1**	**1**	**1**	----	**1**
Final pH	----	0.1	pH Unit		**5.7**	**6.1**	**5.0**	----	**5.1**
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<110	----
C15 - C28 Fraction	----	100	mg/kg		----	----	----	<220	----
C29 - C36 Fraction	----	100	mg/kg		----	----	----	<220	----
C10 - C36 Fraction (sum)	----	50	mg/kg		----	----	----	<110	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		----	----	----	<110	----
>C16 - C34 Fraction	----	100	mg/kg		----	----	----	<110	----
>C34 - C40 Fraction	----	100	mg/kg		----	----	----	<110	----
>C10 - C40 Fraction (sum)	----	50	mg/kg		----	----	----	<110	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH06_0.5_191127	BH06_2.2_191127	BH07_0.1_191127	BH08_0.5_191127	BH08_2.0_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942520-013	ES1942520-014	ES1942520-015	ES1942520-016	ES1942520-017
					Result	Result	Result	Result	Result
EN33: TCLP Leach									
Initial pH	----	0.1	pH Unit		**8.9**	----	**8.9**	**8.8**	----
After HCl pH	----	0.1	pH Unit		**1.6**	----	**1.6**	**1.5**	----
Extraction Fluid Number	----	1	-		**1**	----	**1**	**1**	----
Final pH	----	0.1	pH Unit		**5.6**	----	**6.0**	**5.3**	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		----	<110	----	----	<110
C15 - C28 Fraction	----	100	mg/kg		----	**660**	----	----	**520**
C29 - C36 Fraction	----	100	mg/kg		----	**850**	----	----	**440**
C10 - C36 Fraction (sum)	----	50	mg/kg		----	**1510**	----	----	**960**
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		----	<110	----	----	<110
>C16 - C34 Fraction	----	100	mg/kg		----	**1510**	----	----	**980**
>C34 - C40 Fraction	----	100	mg/kg		----	<110	----	----	<110
>C10 - C40 Fraction (sum)	----	50	mg/kg		----	**1510**	----	----	**980**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH09_0.1_191127	BH09_0.5_191127	BH10_0.1_191128	BH12_0.1_191128	BH12_1.5_191128
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942520-018	ES1942520-019	ES1942520-020	ES1942520-023	ES1942520-024
					Result	Result	Result	Result	Result
EN33: TCLP Leach									
Initial pH	----	0.1	pH Unit		**8.8**	**8.8**	**8.6**	**7.2**	**----**
After HCl pH	----	0.1	pH Unit		**1.6**	**1.4**	**1.7**	**1.4**	**----**
Extraction Fluid Number	----	1	-		**1**	**1**	**1**	**1**	**----**
Final pH	----	0.1	pH Unit		**5.4**	**5.3**	**5.8**	**5.0**	**----**
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		**----**	**----**	**----**	**----**	<50
C15 - C28 Fraction	----	100	mg/kg		**----**	**----**	**----**	**----**	<100
C29 - C36 Fraction	----	100	mg/kg		**----**	**----**	**----**	**----**	<100
C10 - C36 Fraction (sum)	----	50	mg/kg		**----**	**----**	**----**	**----**	<50
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		**----**	**----**	**----**	**----**	<50
>C16 - C34 Fraction	----	100	mg/kg		**----**	**----**	**----**	**----**	<100
>C34 - C40 Fraction	----	100	mg/kg		**----**	**----**	**----**	**----**	<100
>C10 - C40 Fraction (sum)	----	50	mg/kg		**----**	**----**	**----**	**----**	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH13_0.3_191128	BH13_0.5_191128	BH13_1.5_191128	BH13_2.5_191128	BH14_0.3_191128
			Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1942520-025	ES1942520-026	ES1942520-027	ES1942520-028	ES1942520-029
				Result	Result	Result	Result	Result
EN33: TCLP Leach								
Initial pH	----	0.1	pH Unit	**9.2**	**10.2**	**----**	**----**	**9.8**
After HCl pH	----	0.1	pH Unit	**1.5**	**1.7**	**----**	**----**	**1.5**
Extraction Fluid Number	----	1	-	**1**	**1**	**----**	**----**	**1**
Final pH	----	0.1	pH Unit	**5.7**	**5.8**	**----**	**----**	**5.4**
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	----	50	mg/kg	<50	<50	<110	<110	<50
C15 - C28 Fraction	----	100	mg/kg	**120**	**210**	**1360**	**1050**	**150**
C29 - C36 Fraction	----	100	mg/kg	**310**	**420**	**840**	**2760**	**310**
C10 - C36 Fraction (sum)	----	50	mg/kg	**430**	**630**	**2200**	**3810**	**460**
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
>C10 - C16 Fraction	----	50	mg/kg	<50	<50	<110	<110	<50
>C16 - C34 Fraction	----	100	mg/kg	**280**	**480**	**2100**	**3840**	**330**
>C34 - C40 Fraction	----	100	mg/kg	**450**	**430**	<110	<110	**380**
>C10 - C40 Fraction (sum)	----	50	mg/kg	**730**	**910**	**2100**	**3840**	**710**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	BH14_1.0_191128	BH15_0.2_191128	BH15_1.5_191128	BH16_1.7_191128	BH17_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942520-030	ES1942520-032	ES1942520-033	ES1942520-035	ES1942520-036
					Result	Result	Result	Result	Result
EN33: TCLP Leach									
Initial pH	----	0.1	pH Unit		**8.5**	**8.5**	**----**	**----**	**8.5**
After HCl pH	----	0.1	pH Unit		**1.8**	**1.5**	**----**	**----**	**1.4**
Extraction Fluid Number	----	1	-		**1**	**1**	**----**	**----**	**1**
Final pH	----	0.1	pH Unit		**5.4**	**5.4**	**----**	**----**	**5.2**
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		<50	<50	<110	<50	**----**
C15 - C28 Fraction	----	100	mg/kg		<100	<100	**920**	**180**	**----**
C29 - C36 Fraction	----	100	mg/kg		**130**	**160**	**750**	**590**	**----**
C10 - C36 Fraction (sum)	----	50	mg/kg		**130**	**160**	**1670**	**770**	**----**
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	<110	<50	**----**
>C16 - C34 Fraction	----	100	mg/kg		**160**	**190**	**1680**	**640**	**----**
>C34 - C40 Fraction	----	100	mg/kg		**110**	**180**	<110	**370**	**----**
>C10 - C40 Fraction (sum)	----	50	mg/kg		**270**	**370**	**1680**	**1010**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH19_0.5_191129	BH19_1.5_191129	MW11_0.5_191128
			Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	28-Nov-2019 00:00
Compound	CAS Number	LOR	Unit	ES1942520-038	ES1942520-039	ES1942520-040	ES1942520-041	ES1942520-042
				Result	Result	Result	Result	Result
EA200: AS 4964 - 2004 Identification of Asbestos in Soils								
Asbestos Detected	1332-21-4	0.1	g/kg	----	----	No*	----	----
Asbestos Type	1332-21-4	-	--	----	----	Ch	----	----
Asbestos (Trace)	1332-21-4	5	Fibres	----	----	No	----	----
Sample weight (dry)	----	0.01	g	----	----	315	----	----
Synthetic Mineral Fibre	----	0.1	g/kg	----	----	No	----	----
Organic Fibre	----	0.1	g/kg	----	----	No	----	----
APPROVED IDENTIFIER:	----	-	--	----	----	A. SMYLIE	----	----
EA200N: Asbestos Quantification (non-NATA)								
ø Asbestos (Fines and Fibrous <7mm)	1332-21-4	0.0004	g	----	----	0.0244	----	----
ø Asbestos (Fines and Fibrous FA+AF)	----	0.001	% (w/w)	----	----	0.008	----	----
ø Asbestos Containing Material	1332-21-4	0.1	g	----	----	<0.1	----	----
ø Asbestos Containing Material (as 15% Asbestos in ACM >7mm)	1332-21-4	0.01	% (w/w)	----	----	<0.01	----	----
ø Weight Used for % Calculation	----	0.0001	kg	----	----	0.315	----	----
ø Fibrous Asbestos >7mm	----	0.0004	g	----	----	<0.0004	----	----
EN33: TCLP Leach								
Initial pH	----	0.1	pH Unit	7.8	7.6	8.4	----	7.6
After HCl pH	----	0.1	pH Unit	1.4	1.4	1.6	----	1.4
Extraction Fluid Number	----	1	-	1	1	1	----	1
Final pH	----	0.1	pH Unit	5.0	5.0	5.2	----	5.0
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup								
C10 - C14 Fraction	----	50	mg/kg	----	----	<50	<50	<50
C15 - C28 Fraction	----	100	mg/kg	----	----	<100	150	210
C29 - C36 Fraction	----	100	mg/kg	----	----	<100	130	120
C10 - C36 Fraction (sum)	----	50	mg/kg	----	----	<50	280	330
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup								
>C10 - C16 Fraction	----	50	mg/kg	----	----	<50	<50	<50
>C16 - C34 Fraction	----	100	mg/kg	----	----	140	270	290
>C34 - C40 Fraction	----	100	mg/kg	----	----	100	<100	100
>C10 - C40 Fraction (sum)	----	50	mg/kg	----	----	240	270	390

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW11_3.5_191128	MW11_5.0_191128	MW20_1.8_191128	MW20_4.0_191128	MW21_0.3_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00
Compound	CAS Number	LOR	Unit		ES1942520-043	ES1942520-044	ES1942520-045	ES1942520-046	ES1942520-047
					Result	Result	Result	Result	Result
EN33: TCLP Leach									
Initial pH	----	0.1	pH Unit		**5.4**	**5.7**	**----**	**6.4**	**8.3**
After HCl pH	----	0.1	pH Unit		**1.4**	**1.4**	**----**	**1.5**	**1.4**
Extraction Fluid Number	----	1	-		**1**	**1**	**----**	**1**	**1**
Final pH	----	0.1	pH Unit		**4.9**	**4.9**	**----**	**4.9**	**5.1**
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		**----**	**----**	<50	**----**	<50
C15 - C28 Fraction	----	100	mg/kg		**----**	**----**	<100	**----**	**220**
C29 - C36 Fraction	----	100	mg/kg		**----**	**----**	<100	**----**	**410**
C10 - C36 Fraction (sum)	----	50	mg/kg		**----**	**----**	<50	**----**	**630**
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		**----**	**----**	<50	**----**	<50
>C16 - C34 Fraction	----	100	mg/kg		**----**	**----**	<100	**----**	**510**
>C34 - C40 Fraction	----	100	mg/kg		**----**	**----**	<100	**----**	**330**
>C10 - C40 Fraction (sum)	----	50	mg/kg		**----**	**----**	<50	**----**	**840**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Client sample ID	MW21_1.3_191128	----	----	----	----
				Client sampling date / time	29-Nov-2019 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES1942520-048	--------	--------	--------	--------
					Result	----	----	----	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup									
C10 - C14 Fraction	----	50	mg/kg		<60	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg		**1020**	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg		**760**	----	----	----	----
C10 - C36 Fraction (sum)	----	50	mg/kg		**1780**	----	----	----	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup									
>C10 - C16 Fraction	----	50	mg/kg		<60	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		**1760**	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	----	----	----	----
>C10 - C40 Fraction (sum)	----	50	mg/kg		**1760**	----	----	----	----

Analytical Results

Sub-Matrix: **TCLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	BH01_0.5_191127	BH02_0.1_191127	BH04_0.1_191127	BH04_0.5_191127	BH05_0.1_191127
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
					ES1942520-002	ES1942520-004	ES1942520-007	ES1942520-008	ES1942520-009
					Result	Result	Result	Result	Result
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		**0.2**	**0.3**	**0.3**	**2.0**	**0.6**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	----	----	----	<0.5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**19.8**	----	----	----	**19.4**
2-Chlorophenol-D4	93951-73-6	1.0	%		**60.0**	----	----	----	**64.1**
2.4.6-Tribromophenol	118-79-6	1.0	%		**67.6**	----	----	----	**61.9**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**73.6**	----	----	----	**85.1**
Anthracene-d10	1719-06-8	1.0	%		**77.3**	----	----	----	**82.2**
4-Terphenyl-d14	1718-51-0	1.0	%		**77.0**	----	----	----	**82.8**

Analytical Results

Sub-Matrix: **TCLP LEACHATE** (Matrix: **WATER**)				Client sample ID	**BH05_0.9_191127**	**BH06_0.1_191127**	**BH06_0.5_191127**	**BH07_0.1_191127**	**BH08_0.5_191127**
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00	27-Nov-2019 00:00
Compound	*CAS Number*	*LOR*	*Unit*		**ES1942520-010**	**ES1942520-012**	**ES1942520-013**	**ES1942520-015**	**ES1942520-016**
					Result	Result	Result	Result	Result
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		<0.1	<0.1	**0.2**	<0.1	**0.3**

Analytical Results

Sub-Matrix: **TCLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	BH09_0.1_191127	BH09_0.5_191127	BH10_0.1_191128	BH12_0.1_191128	BH13_0.3_191128
				Client sampling date / time	27-Nov-2019 00:00	27-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
					ES1942520-018	ES1942520-019	ES1942520-020	ES1942520-023	ES1942520-025
					Result	Result	Result	Result	Result
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		**0.1**	**0.3**	<0.1	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	<0.5	<0.5	<0.5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**23.2**	**30.4**	**29.1**	**25.6**	**28.0**
2-Chlorophenol-D4	93951-73-6	1.0	%		**68.7**	**59.5**	**59.6**	**55.9**	**59.2**
2.4.6-Tribromophenol	118-79-6	1.0	%		**80.1**	**67.6**	**71.7**	**68.9**	**77.9**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**87.2**	**82.7**	**80.2**	**77.1**	**83.5**
Anthracene-d10	1719-06-8	1.0	%		**83.5**	**80.7**	**80.0**	**75.8**	**78.3**
4-Terphenyl-d14	1718-51-0	1.0	%		**83.4**	**83.3**	**80.9**	**77.3**	**88.8**

Analytical Results

Sub-Matrix: **TCLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	BH13_0.5_191128	BH14_0.3_191128	BH14_1.0_191128	BH15_0.2_191128	BH17_0.1_191128
				Client sampling date / time	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
					ES1942520-026	ES1942520-029	ES1942520-030	ES1942520-032	ES1942520-036
					Result	Result	Result	Result	Result
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		**----**	**0.4**	**0.1**	**0.2**	**0.2**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	<0.5	**----**	<0.5	<0.5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**28.8**	**28.2**	**----**	**28.7**	**25.8**
2-Chlorophenol-D4	93951-73-6	1.0	%		**63.0**	**67.4**	**----**	**63.6**	**54.7**
2.4.6-Tribromophenol	118-79-6	1.0	%		**75.6**	**64.9**	**----**	**78.8**	**60.5**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**80.9**	**87.7**	**----**	**90.9**	**76.9**
Anthracene-d10	1719-06-8	1.0	%		**81.3**	**63.3**	**----**	**80.3**	**74.1**
4-Terphenyl-d14	1718-51-0	1.0	%		**97.8**	**95.3**	**----**	**93.0**	**86.8**

Analytical Results

Sub-Matrix: **TCLP LEACHATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Client sample ID	BH18_0.1_191129	BH18_0.5_191129	BH19_0.5_191129	MW11_0.5_191128	MW11_3.5_191128
				Client sampling date / time	29-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	28-Nov-2019 00:00	28-Nov-2019 00:00
					ES1942520-038	ES1942520-039	ES1942520-040	ES1942520-042	ES1942520-043
					Result	Result	Result	Result	Result
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		**0.2**	**----**	**0.5**	**0.2**	**----**
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Benzo(a)pyrene	50-32-8	0.5	µg/L		**----**	<0.5	<0.5	<0.5	<0.5
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**----**	**25.6**	**24.6**	**22.9**	**29.0**
2-Chlorophenol-D4	93951-73-6	1.0	%		**----**	**61.2**	**50.5**	**50.8**	**71.6**
2.4.6-Tribromophenol	118-79-6	1.0	%		**----**	**63.2**	**55.2**	**52.3**	**66.6**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**----**	**78.2**	**76.3**	**76.7**	**91.1**
Anthracene-d10	1719-06-8	1.0	%		**----**	**72.6**	**69.2**	**68.6**	**81.4**
4-Terphenyl-d14	1718-51-0	1.0	%		**----**	**89.9**	**85.9**	**91.8**	**93.5**

Analytical Results

Sub-Matrix: TCLP LEACHATE (Matrix: WATER)				Client sample ID	MW11_5.0_191128	MW20_4.0_191128	MW21_0.3_191128	----	----
				Client sampling date / time	28-Nov-2019 00:00	29-Nov-2019 00:00	29-Nov-2019 00:00	----	----
Compound	CAS Number	LOR	Unit		ES1942520-044	ES1942520-046	ES1942520-047	--------	--------
					Result	Result	Result	----	----
EG005(ED093)C: Leachable Metals by ICPAES									
Lead	7439-92-1	0.1	mg/L		----	<0.1	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Benzo(a)pyrene	50-32-8	0.5	µg/L		<0.5	----	<0.5	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		**23.6**	----	**23.5**	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		**60.2**	----	**52.0**	----	----
2.4.6-Tribromophenol	118-79-6	1.0	%		**61.8**	----	**58.6**	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		**78.7**	----	**82.4**	----	----
Anthracene-d10	1719-06-8	1.0	%		**67.4**	----	**73.9**	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		**84.5**	----	**88.8**	----	----

Analytical Results

Descriptive Results

Sub-Matrix: **SOIL**

Method: Compound	Client sample ID - Client sampling date / time	Analytical Results
EA200: AS 4964 - 2004 Identification of Asbestos in Soils		
EA200: Description	BH19_0.5_191129 - 29-Nov-2019 00:00	Mid brown soil containing one fragment of asbestos cement sheeting debris approximately 10x5x2mm.

Surrogate Control Limits

Sub-Matrix: **TCLP LEACHATE**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2.4.6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES1942520**	Page	: 1 of 8
Amendment	: **3**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: Lachlan Lewis	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 20-Dec-2019
Site	: ----	Issue Date	: 07-Feb-2020
Sampler	: J190730	No. of samples received	: 48
Order number	: ----	No. of samples analysed	: 41

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Analysis Holding Time Compliance

Matrix: **SOIL**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EN33: TCLP Leach						
Non-Volatile Leach: 14 day HT(e.g. SV organics)						
BH01_0.5_191127, BH05_0.1_191127, BH09_0.1_191127, BH09_0.5_191127	23-Dec-2019	11-Dec-2019	**12**	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics)						
BH10_0.1_191128, BH12_0.1_191128, BH13_0.3_191128, BH13_0.5_191128, BH14_0.3_191128, BH14_1.0_191128, BH15_0.2_191128, BH17_0.1_191128, MW11_0.5_191128, MW11_3.5_191128, MW11_5.0_191128	23-Dec-2019	12-Dec-2019	**11**	----	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics)						
BH18_0.5_191129, BH19_0.5_191129, MW21_0.3_191128	23-Dec-2019	13-Dec-2019	**10**	----	----	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup						
Soil Glass Jar - Unpreserved						
BH01_2.5_191127, BH02_2.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH08_2.0_191127	23-Dec-2019	11-Dec-2019	**12**	----	----	----
Soil Glass Jar - Unpreserved						
BH12_1.5_191128, BH13_0.3_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_0.3_191128, BH14_1.0_191128, BH15_0.2_191128, BH15_1.5_191128, BH16_1.7_191128, MW11_0.5_191128	23-Dec-2019	12-Dec-2019	**11**	----	----	----
Soil Glass Jar - Unpreserved						
BH19_0.5_191129, BH19_1.5_191129, MW20_1.8_191128, MW21_0.3_191128, MW21_1.3_191128	23-Dec-2019	13-Dec-2019	**10**	----	----	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup						
Soil Glass Jar - Unpreserved						
BH01_2.5_191127, BH02_2.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH08_2.0_191127	23-Dec-2019	11-Dec-2019	**12**	----	----	----

Matrix: **SOIL**

Method / Container / Client Sample ID(s)		Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Days overdue	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Days overdue
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup - Analysis							
Soil Glass Jar - Unpreserved							
BH12_1.5_191128,	BH13_0.3_191128,	23-Dec-2019	12-Dec-2019	**11**	----	----	----
BH13_0.5_191128,	BH13_1.5_191128,						
BH13_2.5_191128,	BH14_0.3_191128,						
BH14_1.0_191128,	BH15_0.2_191128,						
BH15_1.5_191128,	BH16_1.7_191128,						
MW11_0.5_191128							
Soil Glass Jar - Unpreserved							
BH19_0.5_191129,	BH19_1.5_191129,	23-Dec-2019	13-Dec-2019	**10**	----	----	----
MW20_1.8_191128,	MW21_0.3_191128,						
MW21_1.3_191128							

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type / Method	Count: QC	Count: Regular	Rate (%): Actual	Rate (%): Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	0	21	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	0	21	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type / Method	Count: QC	Count: Regular	Rate (%): Actual	Rate (%): Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
PAH/Phenols (GC/MS - SIM)	0	17	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
PAH/Phenols (GC/MS - SIM)	0	17	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA200: AS 4964 - 2004 Identification of Asbestos in Soils							
Snap Lock Bag: Separate bag received (EA200)							
BH19_0.5_191129	**29-Nov-2019**	**----**	----	----	**17-Jan-2020**	27-May-2020	✓
EA200N: Asbestos Quantification (non-NATA)							
Snap Lock Bag: Separate bag received (EA200N)							
BH19_0.5_191129	**29-Nov-2019**	**----**	----	----	**17-Jan-2020**	27-May-2020	✓
EN33: TCLP Leach							
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN33a)							
BH01_0.5_191127, BH05_0.1_191127, BH09_0.1_191127, BH09_0.5_191127	**27-Nov-2019**	**23-Dec-2019**	11-Dec-2019	×	**----**	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN33a)							
BH10_0.1_191128, BH12_0.1_191128, BH13_0.3_191128, BH13_0.5_191128, BH14_0.3_191128, BH14_1.0_191128, BH15_0.2_191128, BH17_0.1_191128, MW11_0.5_191128, MW11_3.5_191128, MW11_5.0_191128	**28-Nov-2019**	**23-Dec-2019**	12-Dec-2019	×	**----**	----	----
Non-Volatile Leach: 14 day HT(e.g. SV organics) (EN33a)							
BH18_0.5_191129, BH19_0.5_191129, MW21_0.3_191128	**29-Nov-2019**	**23-Dec-2019**	13-Dec-2019	×	**----**	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN33a)							
BH02_0.1_191127, BH04_0.1_191127, BH04_0.5_191127, BH05_0.9_191127, BH06_0.1_191127, BH06_0.5_191127, BH07_0.1_191127, BH08_0.5_191127	**27-Nov-2019**	**23-Dec-2019**	25-May-2020	✓	**----**	----	----
Non-Volatile Leach: 180 day HT (e.g. PFAS, metals ex.Hg) (EN33a)							
BH18_0.1_191129, MW20_4.0_191128	**29-Nov-2019**	**23-Dec-2019**	27-May-2020	✓	**----**	----	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup							
Soil Glass Jar - Unpreserved (EP071-SVSG)							
BH01_2.5_191127, BH02_2.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH08_2.0_191127	**27-Nov-2019**	**23-Dec-2019**	11-Dec-2019	×	**30-Dec-2019**	01-Feb-2020	✓
Soil Glass Jar - Unpreserved (EP071-SVSG)							
BH12_1.5_191128, BH13_0.3_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_0.3_191128, BH14_1.0_191128, BH15_0.2_191128, BH15_1.5_191128, BH16_1.7_191128, MW11_0.5_191128	**28-Nov-2019**	**23-Dec-2019**	12-Dec-2019	×	**30-Dec-2019**	01-Feb-2020	✓
Soil Glass Jar - Unpreserved (EP071-SVSG)							
BH19_0.5_191129, BH19_1.5_191129, MW20_1.8_191128, MW21_0.3_191128, MW21_1.3_191128	**29-Nov-2019**	**23-Dec-2019**	13-Dec-2019	×	**30-Dec-2019**	01-Feb-2020	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup							
Soil Glass Jar - Unpreserved (EP071-SVSG) BH01_2.5_191127, BH02_2.5_191127, BH05_1.2_191127, BH06_2.2_191127, BH08_2.0_191127	**27-Nov-2019**	**23-Dec-2019**	11-Dec-2019	×	**30-Dec-2019**	01-Feb-2020	✓
Soil Glass Jar - Unpreserved (EP071-SVSG) BH12_1.5_191128, BH13_0.3_191128, BH13_0.5_191128, BH13_1.5_191128, BH13_2.5_191128, BH14_0.3_191128, BH14_1.0_191128, BH15_0.2_191128, BH15_1.5_191128, BH16_1.7_191128, MW11_0.5_191128	**28-Nov-2019**	**23-Dec-2019**	12-Dec-2019	×	**30-Dec-2019**	01-Feb-2020	✓
Soil Glass Jar - Unpreserved (EP071-SVSG) BH19_0.5_191129, BH19_1.5_191129, MW20_1.8_191128, MW21_0.3_191128, MW21_1.3_191128	**29-Nov-2019**	**23-Dec-2019**	13-Dec-2019	×	**30-Dec-2019**	01-Feb-2020	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG005(ED093)C: Leachable Metals by ICPAES							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG005C) BH01_0.5_191127, BH02_0.1_191127, BH04_0.1_191127, BH04_0.5_191127, BH05_0.1_191127, BH05_0.9_191127, BH06_0.1_191127, BH06_0.5_191127, BH07_0.1_191127, BH08_0.5_191127, BH09_0.1_191127, BH09_0.5_191127, BH10_0.1_191128, BH14_0.3_191128, BH14_1.0_191128, BH15_0.2_191128, BH17_0.1_191128, BH18_0.1_191129, BH19_0.5_191129, MW11_0.5_191128, MW20_4.0_191128	**23-Dec-2019**	**27-Dec-2019**	20-Jun-2020	✓	**27-Dec-2019**	20-Jun-2020	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM))							
BH01_0.5_191127, BH05_0.1_191127, BH09_0.1_191127, BH09_0.5_191127, BH10_0.1_191128, BH12_0.1_191128, BH13_0.3_191128, BH13_0.5_191128, BH14_0.3_191128, BH15_0.2_191128, BH17_0.1_191128, BH18_0.5_191129, BH19_0.5_191129, MW11_0.5_191128, MW11_3.5_191128, MW11_5.0_191128, MW21_0.3_191128	**23-Dec-2019**	**24-Dec-2019**	30-Dec-2019	✓	**02-Jan-2020**	02-Feb-2020	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	EP071-SVSG	0	21	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	EP071-SVSG	2	21	**9.52**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
TCLP for Non & Semivolatile Analytes	EN33a	4	36	**11.11**	**9.09**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	EP071-SVSG	2	21	**9.52**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	EP071-SVSG	0	21	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Leachable Metals by ICPAES	EG005C	3	25	**12.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	17	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Leachable Metals by ICPAES	EG005C	2	25	**8.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Leachable Metals by ICPAES	EG005C	2	25	**8.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Leachable Metals by ICPAES	EG005C	2	25	**8.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	17	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Asbestos Identification in Soils	EA200	SOIL	AS 4964 - 2004 Method for the qualitative identification of asbestos in bulk samples Analysis by Polarised Light Microscopy including dispersion staining
Asbestos Classification and Quantitation per NEPM 2013	* EA200N	SOIL	Asbestos Classification and Quantitation per NEPM 2013 with Confirmation of Identification by AS 4964 - 2004 Gravimetric determination of Asbestos Containing Material, Fibrous Asbestos, Asbestos Fines and sample weight and calculation of percentage concentrations per NEPM protocols. Asbestos (Fines and Fibrous FA+AF) is reported as the equivalent weight in the sample received after accounting for sub-sampling (where applicable for the <7mm and/or <2mm fractions).
Leachable Metals by ICPAES	EG005C	SOIL	In house: referenced to APHA 3120; USEPA SW 846 - 6010: The ICPAES technique ionises leachate sample atoms emitting a characteristic spectrum. This spectrum is then compared against matrix matched standards for quantification. This method is compliant with NEPM (2013) Schedule B(3)
TRH - Semivolatile Fractions Only (after Silica Gel Cleanup)	EP071-SVSG	SOIL	In house: Referenced to USEPA SW 846 - 8015A. Sample extracts are cleaned up using silica gel and are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM amended 2013.
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270D Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (2013) Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Digestion for Total Recoverable Metals in TCLP Leachate	EN25C	SOIL	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM (2013) Schedule B(3)
TCLP for Non & Semivolatile Analytes	EN33a	SOIL	In house QWI-EN/33 referenced to USEPA SW846-1311: The TCLP procedure is designed to determine the mobility of both organic and inorganic analytes present in wastes. The standard TCLP leach is for non-volatile and Semivolatile test parameters.
Separatory Funnel Extraction of Liquids	ORG14	SOIL	In house: Referenced to USEPA SW 846 - 3510B 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM (2013) Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES1942520**	Page	: 1 of 4
Amendment	: **3**		
Client	: **EMM CONSULTING PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: Lachlan Lewis	Contact	: Customer Services ES
Address	: Ground Floor Suite 1 20 Chandos Street St Leonards NSW NSW 2065	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: 02 9493 9577	Telephone	: +61-2-8784 8555
Project	: LAHC Redfern	Date Samples Received	: 20-Dec-2019
Order number	: ----	Date Analysis Commenced	: 23-Dec-2019
C-O-C number	: ----	Issue Date	: 07-Feb-2020
Sampler	: J190730		
Site	: ----		
Quote number	: SY/609/19		
No. of samples received	: 48		
No. of samples analysed	: 41		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alana Smylie	Asbestos Identifier	Newcastle - Asbestos, Mayfield West, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005(ED093)C: Leachable Metals by ICPAES (QC Lot: 2786302)									
ES1942331-001	Anonymous	EG005C: Lead	7439-92-1	0.1	mg/L	0.1	0.1	0.00	No Limit
ES1942520-009	BH05_0.1_191127	EG005C: Lead	7439-92-1	0.1	mg/L	0.6	0.6	0.00	No Limit
EG005(ED093)C: Leachable Metals by ICPAES (QC Lot: 2786303)									
ES1942520-032	BH15_0.2_191128	EG005C: Lead	7439-92-1	0.1	mg/L	0.2	0.2	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EN33: TCLP Leach (QCLot: 2780995)								
EN33a: Initial pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: After HCl pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: Final pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33: TCLP Leach (QCLot: 2780996)								
EN33a: Initial pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: After HCl pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: Final pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33: TCLP Leach (QCLot: 2781844)								
EN33a: Initial pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: After HCl pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: Final pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33: TCLP Leach (QCLot: 2781845)								
EN33a: Initial pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: After HCl pH	----	0.1	pH Unit	1.0	----	----	----	----
EN33a: Final pH	----	0.1	pH Unit	1.0	----	----	----	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup (QCLot: 2780531)								
EP071-SVSG: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	97.7	80.0	118
EP071-SVSG: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	101	86.0	112
EP071-SVSG: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	103	74.0	118
EP071-SVSG: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP071 SG: Total Petroleum Hydrocarbons - Silica gel cleanup (QCLot: 2780577)								
EP071-SVSG: C10 - C14 Fraction	----	50	mg/kg	<50	300 mg/kg	92.7	80.0	118
EP071-SVSG: C15 - C28 Fraction	----	100	mg/kg	<100	450 mg/kg	108	86.0	112
EP071-SVSG: C29 - C36 Fraction	----	100	mg/kg	<100	300 mg/kg	91.6	74.0	118
EP071-SVSG: C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup (QCLot: 2780531)								
EP071-SVSG: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	98.8	79.0	117
EP071-SVSG: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	99.4	83.0	111
EP071-SVSG: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	95.0	76.0	117
EP071-SVSG: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup (QCLot: 2780577)								
EP071-SVSG: >C10 - C16 Fraction	----	50	mg/kg	<50	375 mg/kg	94.6	79.0	117
EP071-SVSG: >C16 - C34 Fraction	----	100	mg/kg	<100	525 mg/kg	95.8	83.0	111

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP071 SG: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Silica gel cleanup (QCLot: 2780577) - continued								
EP071-SVSG: >C34 - C40 Fraction	----	100	mg/kg	<100	225 mg/kg	105	76.0	117
EP071-SVSG: >C10 - C40 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EG005(ED093)C: Leachable Metals by ICPAES (QCLot: 2786302)								
EG005C: Lead	7439-92-1	0.1	mg/L	<0.1	0.1 mg/L	96.7	80.0	118
EG005(ED093)C: Leachable Metals by ICPAES (QCLot: 2786303)								
EG005C: Lead	7439-92-1	0.1	mg/L	<0.1	0.1 mg/L	99.9	80.0	118
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 2784838)								
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	89.3	63.3	117

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG005(ED093)C: Leachable Metals by ICPAES (QCLot: 2786302)							
ES1942331-002	Anonymous	EG005C: Lead	7439-92-1	1 mg/L	116	70.0	130
EG005(ED093)C: Leachable Metals by ICPAES (QCLot: 2786303)							
ES1942520-036	BH17_0.1_191128	EG005C: Lead	7439-92-1	1 mg/L	110	70.0	130

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: X Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	Lachlan Lewis	FAST
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY: Claire McKenzie
		DATE/TIME:	DATE/TIME: 4/12/19 1401

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Phenol/OC/OP/ PCB/8 Metals (e-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification %w/w	SPOCAS	TRH, BTEXN, 8 metals (e-5/w-5)	TRH/BTEXN (w-18/e-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
99	QC100_191127	27/11/2019	S								X			
100	QC101_191127	27/11/2019	S								X			
101	QC102_191128	29/11/2019	S								X			
102	QC103_191128	29/11/2019	S								X			
1 ---	QC200_191127	27/11/2019	S								X			Please forward to Envirolab
2 ---	QC201_191128	28/11/2019	S								X			Please forward to Envirolab
3 ---	QC202_191129	29/11/2019	S								X			Please forward to Envirolab
4 ---	QC203_191129	29/11/2019	S								X			Please forward to Envirolab
103	QC300_191127	27/11/2019	W								X			
104	QC301_191128	28/11/2019	W								X			
105	QC302_191129	29/11/2019	W								X			
106	TB_191128	28/11/2019	S									X		
107	TB_191129	29/11/2019	S									X		
108	BH13_0.1	28/11/19		TOTAL										

ENVIROLAB SYDNEY
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 232338
Date Received: 4/12/19
Time Received: 1401
Received by: CM
Temp: Cool/Ambient
Cooling: Ice/icepack
Security: Intact/Broken/None

extra 109 BH02_0.9

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

232338 Envirolab

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: (Standard TAT may be longer for some tests e.g.. Ultra Trace Organics) ☒ Standard or non urgent TAT (List due date): ☐ Non Standard or urgent TAT (List due date):
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au, emmconsulting@esdat.net	
Email Invoice to (will default to PM if no other addresses are listed): as above	

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7

OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)			
Custody Seal Intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:	°C		
Other comment:			

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Lachlan Lewis	Fadi		
DATE/TIME:	DATE/TIME: 2/12/19 9	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY: LAB ID	SAMPLE ID	DATE / TIME	MATRIX (Solid(S) Water(W))	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Phenols/OC/OP/PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Additional Information (Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.)
1	BH01_0.1_191127	27/11/2019	S			X	X							
2	BH01_0.5_191127	27/11/2019	S			X	X	X	X	X				
3	BH01_1.0_191127	27/11/2019	S										X	
4	BH01_2.0_191127	27/11/2019	S										X	
5	BH01_2.5_191127	27/11/2019	S			X				X –				
6	BH02_0.1_191127	27/11/2019	S			X	X	X	X					
7	BH02_0.5_191127	27/11/2019	S			X	X							
8	BH02_1.5_191127	27/11/2019	S										X	
9	BH02_2.5_191127	27/11/2019	S			X				X –				
10	BH03_0.1_191127	27/11/2019	S										X	
11	BH03_0.5_191127	27/11/2019	S			X	X							
12	BH03_1.5_191127	27/11/2019	S			X		X		X				
13	BH03_2.5_191127	27/11/2019	S			X				X				
				TOTAL										

ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price). Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)

Lab / Split: SPOCAS-D
Relinquished By / Date: Brisbane
Relinquished By / Date: Asbestos
/ Courier: Newcastle
QC200, QC201, QC202
PO / Internal Sheet:
QC203 → Envirolab

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = F
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

Environmental Division
Sydney
Work Order Reference
ES1939690

Telephone : + 61-2-8784 8555

232338

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	Free Ice / frozen Ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	Other comment:	
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848		
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat		
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, tlewis@emmconsulting.com.au			
Email Invoice to (will default to PM if no other addresses are listed): as above			

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Lachlan Lewis	TAS:		
DATE/TIME:	DATE/TIME: 29/12/19 9am	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Ph/OC/OP/ PCB/8 Metals (s-18)	Asbestos A/P	VOC/SVOC	Asbestos quantification %w/w	SPOCAS	TRH, BTEXN, 8 metals (s-6/w-6)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
14	BH04_0.1_191127	27/11/2019	S			X	X	X						
15	BH04_0.5_191127	27/11/2019	S			X	X							
16	BH04_1.5_191127	27/11/2019	S			X				X				
17	BH04_2.5_191127	27/11/2019	S										X	
18	BH05_0.1_191127	27/11/2019	S			X	X							
19	BH05_0.5_191127	27/11/2019	S										X	
20	BH05_0.9_191127	27/11/2019	S			X	X	X	X	X				
21	BH05_1.2_191127	27/11/2019	S			X				X				
22	BH05_2.5_191127	27/11/2019	S										X	
23	BH06_0.1_191127	27/11/2019	S			X	X		X					
24	BH06_0.5_191127	27/11/2019	S			X	X							
25	BH06_1.2_191127	27/11/2019	S										X	
26	BH06_2.2_191127	27/11/2019	S			X				X				
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; U = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles

232338

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd		TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065		(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT:	LAHC Redfern	ALS QUOTE NO.: SY-609-19	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER:	J190730	COUNTRY OF ORIGIN: Australia	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis		CONTACT PH: 0401638848	Other comment:
SAMPLER: Lachlan Lewis		SAMPLER MOBILE: 0401 638 848	
COC Emailed to ALS? (YES / NO)		EDD FORMAT (or default): Esdat	

COC SEQUENCE NUMBER (Circle): COC: 1 2 3 4 5 6 7; CF: 1 2 3 4 5 6 7

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Lachlan Lewis	FAST		
DATE/TIME:	DATE/TIME: 2/12/19 9a	DATE/TIME:	DATE/TIME:

Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, tlewis@emmconsulting.com.au

Email Invoice to (will default to PM if no other addresses are listed): as above

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Ph/OC/OP/PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification %w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
27	BH07_0.1_191127	27/11/2019	S			X	X		X					
28	BH07_0.5_191127	27/11/2019	S										X	
29	BH07_0.9_191127	27/11/2019	S			X		X		X				
30	BH07_1.1_191127	27/11/2019	S			X				X				
31	BH07_2.1_191127	27/11/2019	S										X	
32	BH08_0.1_191127	27/11/2019	S										X	
33	BH08_0.5_191127	27/11/2019	S			X	X			X				
34	BH08_0.9_191127	27/11/2019	S										X	
35	BH08_1.1_191127	27/11/2019	S			X	X	X	X					
36	BH08_2.0_191127	27/11/2019	S			X				X				
37	BH09_0.5_191127	27/11/2019	S			X	X							
38	BH09_1.0_191127	27/11/2019	S			X				X				
39	BH09_1.5_191127	27/11/2019	S										X	
				TOTAL										

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; Lt = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

232338

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free Ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	Lachlan Lewis	Fadi
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19 a
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/PHNOC/OP/ PCB/8 Metals (e-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification %w/w	SPOCAS	TRH, BTEXN, 8 metals (e-8/w-8)	TRH/BTEXN (w-18/e-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
40	BH09_2.5_191127	27/11/2019	S										X	
41	BH10_0.1_191128	28/11/2019	S			X	X							
42	BH10_0.5_191128	28/11/2019	S										X	
43	BH10_1.0_191128	28/11/2019	S			X	X	X	X					
44	BH10_1.5_191128	28/11/2019	S										X	
45	BH10_2.5_191128	28/11/2019	S			X				X				
46	MW11_0.1_191128	28/11/2019	S										X	
47	MW11_0.5_191128	28/11/2019	S			X	X		X					
48	MW11_1.2_191128	28/11/2019	S										X	
49	MW11_2.1_191128	28/11/2019	S										X	
50	MW11_3.5_191128	28/11/2019	S			X		X		X				
51	MW11_5.0_191128	28/11/2019	S			X				X				
52	BH12_0.1_191128	28/11/2019	S			X	X	X	X					
				TOTAL		7	4	3	3	3				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottle; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

232338

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	Free Ice / frozen ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	Other comment:	
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848		
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat		
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llews@emmconsulting.com.au			
Email Invoice to (will default to PM if no other addresses are listed): as above			

COC SEQUENCE NUMBER (Circle): COC: 1 2 3 4 5 6 7; OF: 1 2 3 4 5 6 7

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Lachlan Lewis	FAST		
DATE/TIME:	DATE/TIME: 26/11/19 9am	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/PI/OC/OP/ PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-8/w-8)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
53	BH12_0.5_191128	28/11/2019	S										X	
54	BH12_1.5_191128	28/11/2019	S			X				X				
55	BH12_2.5_191128	28/11/2019	S			X				X				
56	BH13_0.5_191128	28/11/2019	S			X	X		X					
57	BH13_1.5_191128	28/11/2019	S			X				X				
58	BH13_2.5_191128	28/11/2019	S			X								
59	BH14_0.3_191128	28/11/2019	S			X	X	X	X	X				
60	BH14_1.0_191128	28/11/2019	S			X	X							
61	BH14_2.0_191128	28/11/2019	S										X	
62	BH14_3.0_191128	28/11/2019	S			X				X				
63	BH15_0.2_191128	28/11/2019	S			X	X							
64	BH15_0.5_191128	28/11/2019	S										X	
65	BH15_2.5_191128	28/11/2019	S			X				X				
				TOTAL		10	4	1	2	6				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; U = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

232338

CHAIN OF CUSTODY

ALS Laboratory: please circle → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free Ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	[signature]
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19 9a
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:		DATE/TIME:	DATE/TIME:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Phnol/OC/OP/ PCB/8 Metals (s-18)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-6/w-6)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
66	BH16_0.1_191128	28/11/2019	S			X	X							
67	BH16_0.6_191128	28/11/2019	S										X	
68	BH16_0.9_191128	28/11/2019	S			X	X	X	X					
69	BH16_1.2_191128	28/11/2019	S										X	
70	BH16_1.7_191128	28/11/2019	S			X				X				
71	BH16_2.6_191128	28/11/2019	S										X	
72	BH17_0.1_191128	28/11/2019	S			X	X	X	X					
73	BH17_0.5_191128	28/11/2019	S			X	X			X				
74	BH17_1.5_191128	28/11/2019	S										X	
75	BH17_2.5_191128	28/11/2019	S			X				X				
76	BH18_0.1_191129	29/11/2019	S			X	X	X	X					
77	BH18_0.5_191129	29/11/2019	S			X	X							
78	BH18_1.8_191129	29/11/2019	S										X	
				TOTAL		8	8	3	3	3				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

232338

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS : ☐ Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	Lachlan Lewis	
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au		DATE/TIME:	DATE/TIME: 2/12/19 a
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY:
		DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED Including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/Phn/OC/OP/ PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
79	BH18_2.8_191129	29/11/2019	S			X				X				
80	BH19_0.1_191129	29/11/2019	S										X	
81	BH19_0.5_191129	29/11/2019	S			X	X	X						
82	BH19_1.0_191129	29/11/2019	S										X	
83	BH19_1.5_191129	29/11/2019	S			X				X				
84	BH19_2.5_191129	29/11/2019	S			X				X				
85	MW20_0.1_191129	29/11/2019	S										X	
86	MW20_0.5_191129	29/11/2019	S			X	X		X					
87	MW20_1.0_191129	29/11/2019	S										X	
88	MW20_1.8_191129	29/11/2019	S			X	X			X				
89	MW20_2.8_191129	29/11/2019	S										X	
90	MW20_4.0_191129	29/11/2019	S			X				X				
91	MW21_0.3_191129	29/11/2019	S			X	X	X	X					
				TOTAL		8	4	2	3	5				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

232338

CHAIN OF CUSTODY

ALS Laboratory: please tick → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☐ Standard or urgent TAT (List due date):	FOR LABORATORY USE ONLY (Circle)	
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact?	Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	Free ice / frozen ice bricks present upon receipt?	Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	Random Sample Temperature on Receipt:	°C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	Other comment:	
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 948		
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat		
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, llewis@emmconsulting.com.au			
Email Invoice to (will default to PM if no other addresses are listed): as above			

COC SEQUENCE NUMBER (Circle)

COC: 1 2 3 4 5 6 7

OF: 1 2 3 4 5 6 7

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Lachlan Lewis			
DATE/TIME:	DATE/TIME: 2/12/19	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required)								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/PhOC/OP/PCB/8 Metals (s-19)	Asbestos A/P	VOC/SVOC	Asbestos quantification % w/w	SPOCAS	TRH, BTEXN, 8 metals (s-5/w-5)	TRH/BTEXN (w-18/s-18)	HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
91	MW21_1.3_191129	29/11/2019	S			X	X							
93	MW21_2.5_191129	29/11/2019	S										X	
94	MW21_4.4_191129	29/11/2019	S			X				X				
													X	
95	BH09_0.1_191127	27/11/2019	S			X	X							
96	BH15_1.5_191128	28/11/2019	S			X				X				
97	TS_191127	27/11/2019	S									X		
98	TDC													
				TOTAL		4	2			2				

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP = Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; U = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	EMM Consulting Pty Ltd
Attention	Anthony Davis

Sample Login Details

Your reference	LAHC Redfern
Envirolab Reference	232338
Date Sample Received	04/12/2019
Date Instructions Received	04/12/2019
Date Results Expected to be Reported	11/12/2019

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	4 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	10.8
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	Acid Extractable metalsin soil
QC200_191127	✓	✓	✓
QC201_191128	✓	✓	✓
QC202_191129	✓	✓	✓
QC203_191130	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 232338

Client Details

Client	EMM Consulting Pty Ltd
Attention	Anthony Davis
Address	188 Normanby Rd, SOUTHBANK, VIC, 3006

Sample Details

Your Reference	**LAHC Redfern**
Number of Samples	4 Soil
Date samples received	04/12/2019
Date completed instructions received	04/12/2019

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	11/12/2019
Date of Issue	10/12/2019

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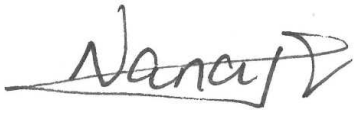
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Jaimie Loa-Kum-Cheung, Metals Supervisor
Josh Williams, Senior Chemist

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		232338-1	232338-2	232338-3	232338-4
Your Reference	UNITS	QC200_191127	QC201_191128	QC202_191129	QC203_191129
Date Sampled		27/11/2019	28/11/2019	29/11/2019	29/11/2019
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	05/12/2019	05/12/2019	05/12/2019	05/12/2019
Date analysed	-	06/12/2019	06/12/2019	06/12/2019	06/12/2019
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	74	68	104	72

svTRH (C10-C40) in Soil					
Our Reference		232338-1	232338-2	232338-3	232338-4
Your Reference	UNITS	QC200_191127	QC201_191128	QC202_191129	QC203_191129
Date Sampled		27/11/2019	28/11/2019	29/11/2019	29/11/2019
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	05/12/2019	05/12/2019	05/12/2019	05/12/2019
Date analysed	-	06/12/2019	06/12/2019	06/12/2019	06/12/2019
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	440	2,200	<100	4,200
TRH C_{29} - C_{36}	mg/kg	470	2,000	<100	2,000
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	820	4,100	<100	6,100
TRH >C_{34} -C_{40}	mg/kg	200	550	<100	520
Total +ve TRH (>C10-C40)	mg/kg	1,000	4,700	<50	6,600
Surrogate o-Terphenyl	%	96	119	86	129

Acid Extractable metals in soil					
Our Reference		232338-1	232338-2	232338-3	232338-4
Your Reference	UNITS	QC200_191127	QC201_191128	QC202_191129	QC203_191129
Date Sampled		27/11/2019	28/11/2019	29/11/2019	29/11/2019
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/12/2019	05/12/2019	05/12/2019	05/12/2019
Date analysed	-	05/12/2019	05/12/2019	05/12/2019	05/12/2019
Arsenic	mg/kg	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	1	7	2
Copper	mg/kg	3	2	8	1
Lead	mg/kg	<1	<1	100	<1
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1
Nickel	mg/kg	4	1	1	<1
Zinc	mg/kg	4	3	220	2

Moisture					
Our Reference		232338-1	232338-2	232338-3	232338-4
Your Reference	UNITS	QC200_191127	QC201_191128	QC202_191129	QC203_191129
Date Sampled		27/11/2019	28/11/2019	29/11/2019	29/11/2019
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	05/12/2019	05/12/2019	05/12/2019	05/12/2019
Date analysed	-	06/12/2019	06/12/2019	06/12/2019	06/12/2019
Moisture	%	41	39	11	39

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date extracted	-			05/12/2019	1	05/12/2019	05/12/2019		05/12/2019	[NT]
Date analysed	-			06/12/2019	1	06/12/2019	06/12/2019		06/12/2019	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	1	<25	<25	0	90	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	1	<25	<25	0	90	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	1	<0.2	<0.2	0	81	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	1	<0.5	<0.5	0	86	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	1	<1	<1	0	91	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	1	<2	<2	0	96	[NT]
o-Xylene	mg/kg	1	Org-016	<1	1	<1	<1	0	102	[NT]
naphthalene	mg/kg	1	Org-014	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	102	1	74	73	1	86	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date extracted	-			05/12/2019	1	05/12/2019	05/12/2019		05/12/2019	[NT]
Date analysed	-			06/12/2019	1	06/12/2019	06/12/2019		06/12/2019	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	1	<50	<50	0	89	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	1	440	790	57	72	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	1	470	1300	94	77	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	1	<50	<50	0	89	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	1	820	2000	84	72	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	1	200	380	62	77	[NT]
Surrogate o-Terphenyl	%		Org-003	61	1	96	120	22	93	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date prepared	-			05/12/2019	1	05/12/2019	05/12/2019		05/12/2019	[NT]
Date analysed	-			05/12/2019	1	05/12/2019	05/12/2019		05/12/2019	[NT]
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	108	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	101	[NT]
Chromium	mg/kg	1	Metals-020	<1	1	2	2	0	111	[NT]
Copper	mg/kg	1	Metals-020	<1	1	3	3	0	108	[NT]
Lead	mg/kg	1	Metals-020	<1	1	<1	<1	0	111	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	92	[NT]
Nickel	mg/kg	1	Metals-020	<1	1	4	4	0	102	[NT]
Zinc	mg/kg	1	Metals-020	<1	1	4	4	0	110	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

TRH Soil C10-C40 NEPM - The RPD for duplicate results is accepted due to the non homogenous nature of sample 232338-1

CHAIN OF CUSTODY

ALS Laboratory: *please tick* → Smithfield NSW

CLIENT: EMM Consulting Pty Ltd	TURNAROUND REQUIREMENTS: ☒ Standard or non urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Ground Floor, 20 Chandos Street, St Leonards NSW 2065	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):		Custody Seal Intact? Yes No N/A
PROJECT: LAHC Redfern	ALS QUOTE NO.: SY-609-19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: J190730	COUNTRY OF ORIGIN: Australia	COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: 2.4 °C
PROJECT MANAGER: Anthony Davis	CONTACT PH: 0401638848	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Lachlan Lewis	SAMPLER MOBILE: 0401 638 848	RELINQUISHED BY:	RECEIVED BY:
COC Emailed to ALS? (YES / NO)	EDD FORMAT (or default): Esdat	*Lachlan Lewis*	Sep - ALS Crows Nest
Email Reports to (will default to PM if no other addresses are listed): adavis@emmconsulting.com.au, tlewis@emmconsulting.com.au, emmconsulting@esdat.net		DATE/TIME: *18/12/19 1630*	DATE/TIME: 18/12/19 1650
Email Invoice to (will default to PM if no other addresses are listed): as above		RELINQUISHED BY:	RECEIVED BY: JUSTIN
COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:		DATE/TIME:	DATE/TIME: 18/12/19 7pm

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL BOTTLES	TRH/BTEXN/PAH/8 Metals (w-26)	Asbestos A/P	VOC/SVOC	TRH, BTEXN, 8 metals (w-5)	TRH/BTEXN (w-18)			HOLD	Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1	MW11_191218	18/12/2019	W			X		X						
2	MW20_191218	18/12/2019	W			X		X						
3	MW21_191218	18/12/2019	W			X		X						
4	QC104_191218	18/12/2019	W						X					
····· (1)	QC204_191218	18/12/2019	W						X					
5	QC304_191218	18/12/2019	W						X					
6	TB_191218	18/12/2019	W							X				

Environmental Division Sydney
Work Order Reference
ES1942135

Telephone : + 61-2-8784 8555

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 233598
Date Received: 19.12.19
Time Received: 1834
Received by: ICG
Temp: Cool/Ambient
Cooling: Ice/Icepack 5-3
Security: Intact/Broken/None

Please forward to Envirolab

Subcon / Forward Lab / Split WO
Lab / Analysis: ENVIROLAB
Organised By / Date: Q204
Relinquished By / Date:
Connote / Courier:
WO No:
Attached By PO / Internal Sheet:

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 233598

Client Details

Client	EMM Consulting Pty Ltd
Attention	Anthony Davis
Address	188 Normanby Rd, SOUTHBANK, VIC, 3006

Sample Details

Your Reference	**LAHC Redfern**
Number of Samples	1 Water
Date samples received	19/12/2019
Date completed instructions received	19/12/2019

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	03/01/2020
Date of Issue	02/01/2020
Reissue Details	This report replaces R00 created on 02/01/2020 due to: registration error - water not soil

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

Results Approved By
Josh Williams, Senior Chemist
Loren Bardwell, Senior Chemist
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		233598-1
Your Reference	UNITS	QC204_191218
Date Sampled		18/12/2019
Type of sample		Water
Date extracted	-	20/12/2019
Date analysed	-	23/12/2019
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	106
Surrogate toluene-d8	%	97
Surrogate 4-BFB	%	100

svTRH (C10-C40) in Water		
Our Reference		233598-1
Your Reference	UNITS	QC204_191218
Date Sampled		18/12/2019
Type of sample		Water
Date extracted	-	23/12/2019
Date analysed	-	24/12/2019
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	<100
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	83

Metals in Water - Dissolved		
Our Reference		233598-1
Your Reference	UNITS	QC204_191218
Date Sampled		18/12/2019
Type of sample		Water
Date digested	-	30/12/2019
Date analysed	-	31/12/2019
Arsenic - Dissolved	mg/L	<0.05
Cadmium - Dissolved	mg/L	<0.01
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	<0.01
Lead - Dissolved	mg/L	<0.03
Mercury - Dissolved	mg/L	<0.0005
Nickel - Dissolved	mg/L	<0.02
Zinc - Dissolved	mg/L	<0.02

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W10	[NT]
Date extracted	-			20/12/2019	[NT]	[NT]	[NT]	[NT]	20/12/2019	[NT]
Date analysed	-			23/12/2019	[NT]	[NT]	[NT]	[NT]	23/12/2019	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	108	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	108	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	106	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	103	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate toluene-d8	%		Org-016	97	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate 4-BFB	%		Org-016	102	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			23/12/2019	[NT]	[NT]	[NT]	[NT]	23/12/2019	[NT]
Date analysed	-			24/12/2019	[NT]	[NT]	[NT]	[NT]	24/12/2019	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	102	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	107	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	102	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	92	[NT]
Surrogate o-Terphenyl	%		Org-003	88	[NT]	[NT]	[NT]	[NT]	114	[NT]

QUALITY CONTROL: Metals in Water - Dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date digested	-			30/12/2019	[NT]	[NT]	[NT]	[NT]	30/12/2019	[NT]
Date analysed	-			31/12/2019	[NT]	[NT]	[NT]	[NT]	31/12/2019	[NT]
Arsenic - Dissolved	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	102	[NT]
Cadmium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	98	[NT]
Chromium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	98	[NT]
Copper - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	99	[NT]
Lead - Dissolved	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	98	[NT]
Mercury - Dissolved	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	107	[NT]
Nickel - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	99	[NT]
Zinc - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

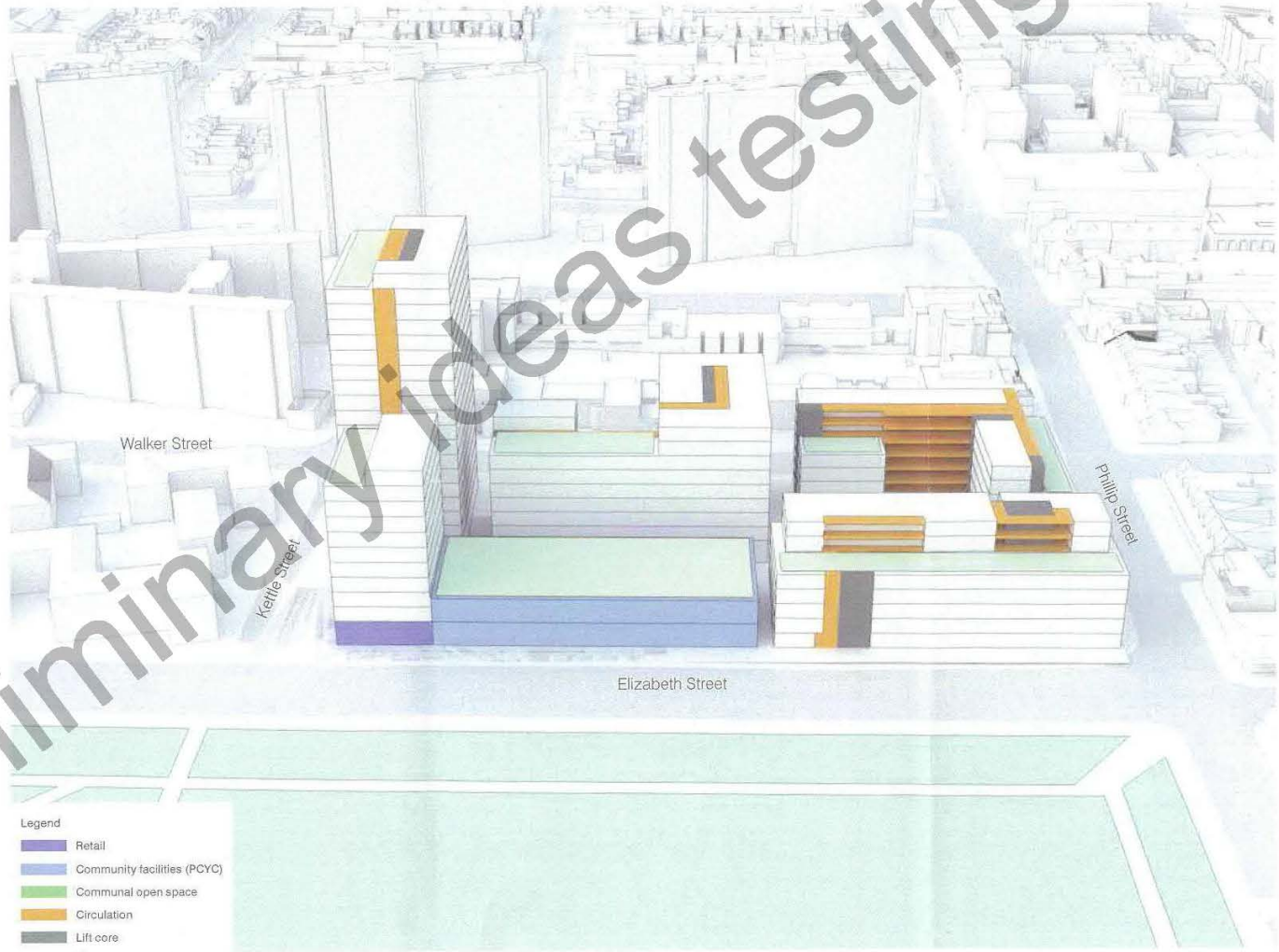
Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix H

Concept development plans

2.4 Option 03 - 'Campus'

- The 'Campus' option provides a series of residential buildings arranged around two central communal open spaces with north-south and east-west through site links.
- This option provides the opportunity for a north south link through the site which draws reference to the sites historical alignment.
- Building height ranges significantly between 1 and 19-storeys across the site including:
  - a 5-storey street wall height on the corner of Phillip and Elizabeth Street, with additional 2-storey setback
  - a 11-storey tower building on the corner of Elizabeth and Kettle Street
  - a 19-storey tower building on the corner of Walker and Kettle Street.
- The PCYC community facility located along Elizabeth Street
- Provision of communal open space is around 4,900m².



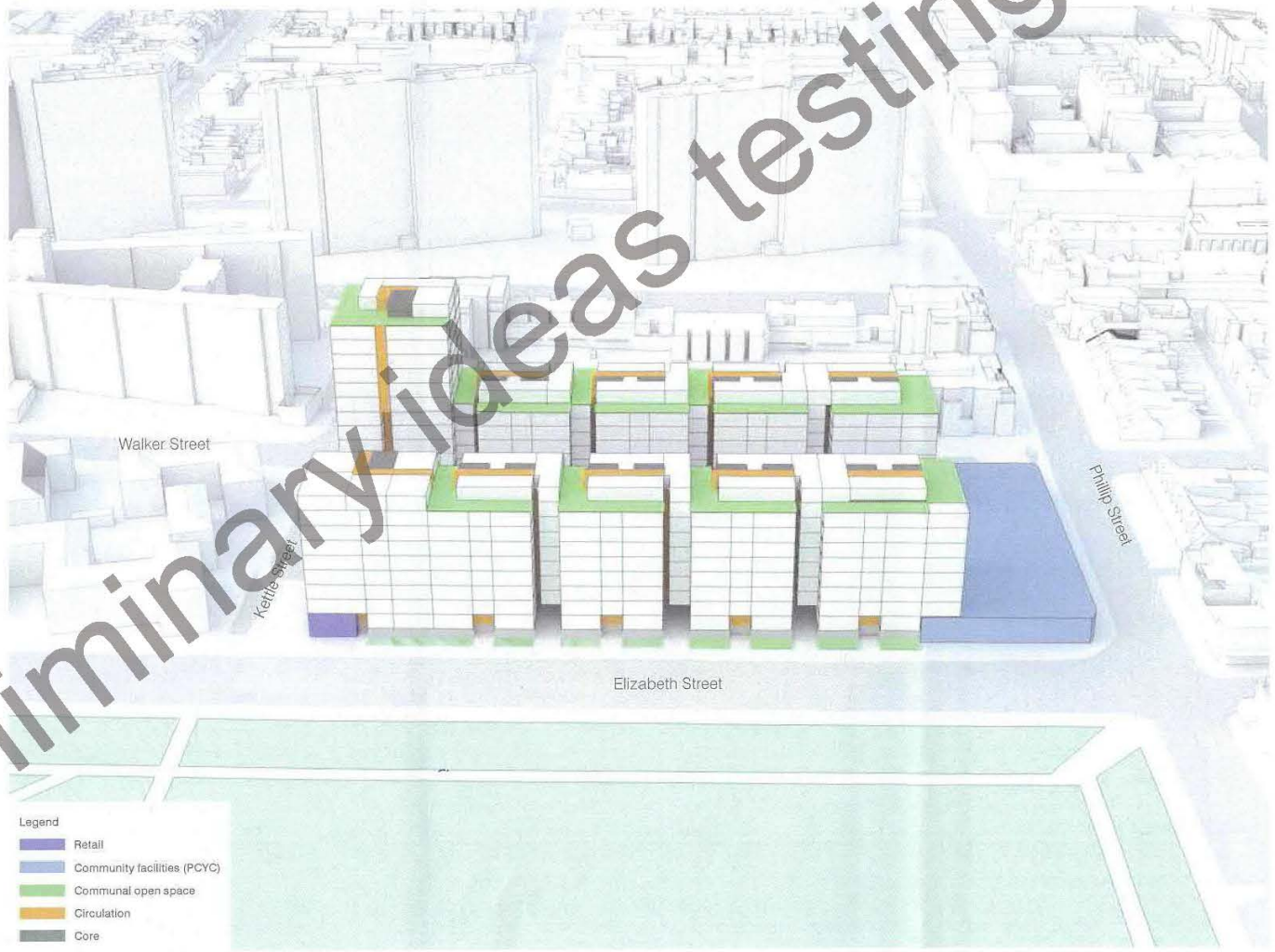
Total GFA m2	40,953	%
Residential GFA	38,417	94%
Retail GFA	424	1%
PCYC GFA	2,112	5%

Total Dwellings	495	

Open space		%
Site area	10,799	
At grade	1,640	15%
Rooftop terraces	3,343	31%
Total open space	4,983	46%

2.1 Option 01 - 'Grand Terraces'

- The 'Grand Terrace' option promotes a series of separate, compact buildings arranged around a central communal open space area which allows for good orientation, solar access and cross ventilation.
- Building height range up to 17-storeys across the site including:
  - a 7-storey street wall height along Elizabeth and Walker Street, with an upper level (8th storey) setback.
  - a 17-storey tower building (16 storeys, with upper level (17th storey) setback on the corner of Walker and Kettle Street.
- The PCYC community facility is located on the corner of Phillip and Elizabeth Street.
- Provision of communal open space is around 4,220m² across the site.



Total GFA m2	40,765	%
Residential GFA	38,514	38,514
Retail GFA	485	1%
PCYC GFA	1,766	4%

Total Dwellings	548

Open space		%
Site area	10,799	
At grade	2,699	25%
Rooftop terraces	1,528	14%
Total open space	4,227	39%